

https://dspace.org/

Factors contributing to the uptake of workplace voluntary counselling and testing for HIV/AIDS in South Africa

Grisselle, Cheryl-Ann

2011-04-13
http://hdl.handle.net/10539/9435

Downloaded from a DSpace repository. https://dspace.org/

FACTORS CONTRIBUTING TO THE UPTAKE OF WORKPLACE VOLUNTARY COUNSELLING AND TESTING FOR HIV/AIDS IN SOUTH AFRICA

Cheryl-Ann Grisselle

A research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, Johannesburg, in partial fulfillment of the requirements for the degree of Master of Business Administration.

Johannesburg
March, 2008



ABSTRACT

This research report determines the dimensions of perceived influencers of employees in a soft-drink manufacturing company, associated with workplace HIV/AIDS voluntary counseling and testing (VCT). The relationship between these dimensions and demographics are also considered. The study provides management suggestions on factors to be incorporated and considered for future VCT interventions.

After having reviewed the literature relating to factors that support or encourage participation in Workplace HIV/AIDS Voluntary Counselling and Testing, as well as reviewing the research report by MBA student J.S. Mundy, certain factors seemed more influential than others. The purpose of this research was to test those factors that where previously identified, amongst others and to either substantiate or disprove the findings in order to increase the validity of generalising the findings to wider populations.

The data for the study was collected by means of a self-completed questionnaire survey, similar although, not identical to the one created by J.S. Mundy. A total of sixty eight responses were completed and processed and the data was subject to statistical analysis.

The main findings of the research suggest that the strongest influencer for workplace testing was the availability of and access to, anti-retroviral medication upon testing positive, followed by talks by people living with HIV/AIDS and confidentiality. These substantiate the findings as described by J.S. Mundy in her report, concluding that post-VCT benefits must be clearly detailed with accessibility to all staff and their families. In addition, the importance of counsellors using the home language of the employee was highlighted by an overwhelming number of respondents as important in the VCT process.

DECLARATION

I, Cheryl Grisselle, declare that this research report is my own work. It is submitted in partial fulfillment of the requirements for the degree of Master of Business Administration, to the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other university.

_____

Cheryl-Ann Grisselle

March, 2008

ACKNOWLEDGEMENTS

I wish to express my gratitude to:

- Professor P.D. Gerber, my supervisor for his assistance, patience and direction throughout the research process.
- Doctor L. Fletcher, for her assistance with the statistical analysis of the data.
- Colleagues and acquaintances that assisted with the distribution and collecting of the questionnaires and for kindly agreeing to accommodate this research.
- To all those that participated in this research at the Canning Plant.
- To my husband William a.k.a “Grizz” and my daughters Tayla and Tarryn for their love, patience and understanding during this process.
- To my mother, for her unwavering belief in my abilities.
- To my “Nanna”, for her constant support.
- To Sally Upfold for her assistance with the language and technical editing of this report.

Glossary

AIDS	Acquired immunodeficiency syndrome
ART	Antiretroviral treatment
ARV	Antiretroviral
ASSA	Actuarial Society of South Africa
BRTA	Business Responds to AIDS
CaRE	Centre for Actuarial Research, University of Cape Town
CDC	USA's National Centers for Disease Control and Prevention
COSATU	Congress of South African Trade Unions
DoH	Department of Health
ELISA	Enzyme-linked immunoassay test for HIV antibodies or antigens
GDP	Gross Domestic Product
HAART	Highly active anti-retroviral treatment (combination or triple drug therapy)
HI	Human Immunodeficiency
HIV	Human immunodeficiency virus
HIV+	Positive for Human immuno-deficiency antibodies
HSRC	Human Sciences Research Council
IEC	Information, education and communication
IMR	Infant mortality rate, the probability that a newborn dies before reaching age 1, $_1q_0$ (usually expressed as number dying out of 1000 newborns)
KAPB	Knowledge, attitude, practice and behaviour
LWA	Living with AIDS
NGO	Non-governmental organisation
PLWHA	People living with HIV/AIDS
PMTCT	Prevention of mother to child transmission
RSA	Republic of Southern Africa
SABCOHA	South African Business Coalition on HIV/AIDS
STD	Sexually transmitted disease

STI	Sexually transmitted infection
TB	Tuberculosis mycobacterium infection
TOT	Training of trainers
UNAIDS	Joint United Nations Programme on HIV/AIDS
VCT	Voluntary counselling and testing

TABLE OF CONTENTS

1. CHAPTER 1: INTRODUCTION TO THE RESEARCH1

1.1 INTRODUCTION 1
1.2 BACKGROUND TO VOLUNTARY COUNSELLING AND TESTING (VCT) 2
1.3 PURPOSE OF THE STUDY. 3
1.4 RESEARCH PROBLEM 3
1.4.1 The sub-issues 5
1.5 DELIMITATIONS AND LIMITATIONS 5
1.6 SIGNIFICANCE OF THE STUDY 6
1.7 ASSUMPTIONS 6
1.8 SUBSEQUENT CHAPTERS OF THE RESEARCH REPORT. 7

2. CHAPTER 2: LITERATURE REVIEW 9

2.1 OVERVIEW OF HIV/AIDS 9
2.1.1 HIV/AIDS in South Africa 9
2.1.2 The impact of HIV/AIDS in South Africa 10
2.1.3 Factors attributable to the spread of the disease in South Africa. 11
2.2 HIV/AIDS AND THE WORKPLACE 14
2.2.1 Introduction 14
2.2.2 The effects of HIV/AIDS on the Workplace 14
2.2.3 HIV prevalence and the benefits of early response 17
2.2.4 Potential impact of Antiretroviral treatment (ART) 18
2.2.5 Intervention: Calculating the costs to business. 20
2.3 VOLUNTARY COUNSELLING AND TESTING. 22
2.3.1 The scope of VCT 22
2.3.2 The importance of VCT. 22
2.3.3 The role of business in VCT provision 24
2.3.4 Favourable workplace attributes linked to VCT 24
2.4 FACTORS POTENTIALLY AFFECTING VCT 25
2.4.1 Introduction 25
2.4.2 Socio-Demographic characteristics 26
2.4.3 External factors affecting VCT and test participation 27
2.5 PROMOTERS OF VCT. 29
2.5.1 Introduction 29
2.5.2 Stigma-reduction activities. 29
2.5.3 Provision of medical treatment and care 31

2.5.4 Providing HIV prevention education and training. 32
2.5.5 Trade Union collaboration. 34
2.6 AREA OF RESEARCH. 34
2.7 PROPOSITIONS. 35

3. CHAPTER 3: RESEARCH METHODOLOGY 36
3.1 INTRODUCTION 36
3.2 METHODOLOGY. 36
3.3 THE RESEARCH POPULATION. 37
3.4 DEVELOPMENT OF THE INSTRUMENT 38
3.5 THE QUESTIONNAIRE. 38
3.5.1 The questionnaire. 38
3.5.2 Organising of the number of categories. 39
3.6 DATA COLLECTION 40
3.7 THE STATISTICAL METHODOLOGY. 41
3.7.1 Exploratory data analysis. 41
3.7.2 Second-stage analyses. 41
3.7.3 Spiderweb Plots. 41
3.7.4 Clustered and stacked Bar Charts. 42
3.7.5 Boxplots 42
3.7.6 ANOVA. 42
3.7.7 Profile Plots. 43
3.8 VALIDITY AND RELIABILTIY. 43
3.8.1 External validity. 43
3.8.2 Internal validity. 44
3.9 LIMITATIONS OF THE RESEARCH 44

4. CHAPTER 4: ANALYSIS AND INTERPRETATION OF RESULTS 45
4.1 INTRODUCTION 45
4.1.1 Exploratory data analysis. 45
4.2 RESPONSE RATE 46
4.3 DEMOGRAPHIC ANALYSIS. 46
4.3.1 Sample representation vs population. 46
4.3.2 Gender. 47
4.3.3 Age Breakdown 48
4.3.4 Level of Education. 48
4.3.5 Sample Employment Status 49

4.3.6 Marital Stats. 50
4.3.7 Remuneration. 51
4.3.8 Dependants 51
4.3.9 Medical Insurance Cover. 53
4.3.10 ART Cover. 53
4.4 ANALYSIS OF RESEARCH RESULTS 54
4.4.1 Respondents' perceptions of others' reactions to PLWHA. 55
4.4.2 Knowledge of HIV/AIDS 57
4.4.3 HIV/AIDS and VCT in the workplace. 58
4.4.4 Influencers for VCT 59
4.4.5 Additional Influencers for VCT. 61
4.4.6 Conclusion: All Influencers 61
4.5 RELIABILITY 62
4.6 MEANS ANALYSIS 63
4.7 SPIDERWEB PLOTS 64
4.8 CLUSTERED BAR CHARTS 65
4.9 BOXPLOTS 66
4.10 MEANS 68
4.11 ANOVA 68
4.11.1 Levene's test 69
4.11.2 Two-way anova results 69
4.11.3 Profile plots 71

5. CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS. 73

5.1 INTRODUCTION 73
5.2 MAIN FINDINGS OF THE RESEARCH 73
5.2.1 Other peoples reactions to people living with HIV/AIDS (PLWHA) 73
5.2.2 Knowledge and beliefs regarding HIV/AIDS. 75
5.2.3 HIV/AIDS and VCT in the workplace 75
5.3 INTERPRETATIONS OF THE RESEARCH. 78
5.3.1 Other peoples reactions to people living with HIV/AIDS (PLWHA) 78
5.3.2 Knowledge and beliefs regarding HIV/AIDS. 78
5.3.3 HIV/AIDS and VCT in the workplace 79
5.3.4 Key Influencers for workplace Voluntary councelling and testing 79
5.4 KEY FINDINGS: TESTED SUB-GROUPS. 81
5.5 CONCLUSIONS AND RECOMMENDATIONS. 81

5.5.1 Other peoples' reactions to PLWHA. 81
5.5.2 Knowledge and beliefs regarding HIV/AIDS. 82
5.5.3 HIV/AIDS and VCT in the workplace. 82
5.5.4 Key influencers for Workplace Voluntary Counselling and Testing (VCT) 82
5.6 VCT SITE EVALUATION – PRE-VCT INTERVENTION STRATEGIES 83
5.7 RECOMMENDATIONS FOR FURTHER RESEARCH 86

REFERENCES… 87

APPENDICES. 96

LIST OF TABLES .....PAGE

Table 4.1: Demographic comparison: sample vs population 46
Table 4.2a: Frequencies & descriptive statistics of the five items measuring reaction to HIV/AIDS status 56
Table 4.2b: Percentage representation of respondents perceptions of peoples' reactions to PLWHA.....57
Table 4.3: Knowledge of HIV/AIDS.....58
Table 4.4: Frequencies & descriptive statistics of workplace to HIV/AIDS 60
Table 4.5: Frequencies & descriptive statistics of 9 "Influencer" items 61
Table 4.6: Additional features that would successfully influence VCT uptake 62
Table 4.7: Descriptive Statistics of the 18 "influencer" items 63
Table 4.8: Reliability analysis results 64
Table 4.9: Means of Influencers vs. Qualification 69
Table 4.10: Means of Influencer vs. Age.....69
Table 4.11: Results of the two-way ANOVA – Descriptive Statistics 71
Table 5.1: Resoindents' perception of others' response to PLWHA 75
Table 5.2: Support in the work environment 76
Table 5.3: Workplace testing reduces stigma 76
Table 5.4: Management will get test results.....77
Table 5.5: Everyone will know I've been tested 77
Table 5.6: If tested positive, couldn't cope with telling my partner 77
Table 5.7: Its best not to know your status - you'd only worry 78
Table 5.8: Use of home language 78
Table 5.9: Knowing status will provide access to treatment and care.....78
Table 5.10: Summary of Conformance to Qualitative Study Best Practice.....85

LIST OF FIGURES .....PAGE

Figure 2.1: Impact of HIV/AIDS on a Company 15
Figure 2.2: Conceptual business cost curves of response to HIV/AIDS 17
Figure 2.3: Projected number of AIDS deaths by level of coverage of national ART programme.....19
Figure 2.4: VCT as an entry point for prevention and care 23
Figure 4.1: Sample Gender demographics 47
Figure 4.2: Sample Age Breakdown 48
Figure 4.3: Sample Education level 49
Figure 4.4: Sample Employment status 50
Figure 4.5: Sample Marital status 50
Figure 4.6: Sample Remuneration 51
Figure 4.7: Sample Number of dependants 52
Figure 4.8: Medical insurance cover 53
Figure 4.9: ART Cover 54
Figure 4.10: Spiderweb plots of perception of the items that will influence uptake of workplace HIV testing.....65
Figure 4.11: Spiderweb plots of perception of additional influencers.....65
Figure 4.12: Clustered bar chart of Qualification vs Age groups.....67
Figure 4.13: Boxplots 68
Figure 4.14: Profile Plot:: Estimated Marginal Means of Influencer 72
Figure 5.1: Key elements for incorporation into VCT 81

LIST OF APPENDICES .....PAGE

Appendix A: Covering Letter 97
Appendix B: Final Questionnaire.....98
Appendix C: VCT Site Evaluation Questionnaire.....103

CHAPTER 1
INTRODUCTION TO THE RESEARCH

1.1 Introduction

The HIV/AIDS crisis and the need to institute an aggressive response is summarised by J. Leschly (as cited in Nattrass *et al,* 2005) who states the following:

> *"*We are talking – not only about a crisis – but a catastrophic situation with impact far beyond the sub-Saharan African region. Demographics will be altered as AIDS takes the lives of people in their most productive years. As business leaders, we have a unique contribution to make to the fight against AIDS by bringing together governments, communities and businesses in the common fight against AIDS. Investing in AIDS is investing for the future of humanity." (Nattrass *et al,* 2005).

The HIV/AIDS epidemic poses a great threat to the economies of developing countries and those on the African continent in particular. South Africa is no exception and is being affected fundamentally by the epidemic. (Booysen & Molelekoa, 2002).

Employers will incur considerable costs as the disease takes its toll on the economically active population. These costs result from increased absenteeism, direct and indirect medical costs, increased labour turnover, decreased productivity, and employee benefits payable to employees living with and dying from HIV/AIDS (Bollinger & Stover 1999; Whiteside & Sunter, 2000).

The workplace is a key site of education, as many of the risk groups are of working age and a high proportion of people that are at infection risk are workers. HIV/AIDS poses a severe business risk and therefore must be proactively managed. In order to effectively assess and manage risk, it is essential to have accurate and adequate information regarding both the nature and the extent of the risk. (SABCOHA, 2003). Thus, for companies to successfully implement

HIV/AIDS workplace programmes, they firstly need to determine the risk posed by HIV/AIDS, which entails determining the HIV prevalence rate amongst their employees. Only once the risks have been ascertained, then prevention and treatment can begin.

The challenge therefore is for companies to motivate employees to undergo HIV testing and counselling, which should be viewed not as a threat, but rather as an intervention to empower employees and link them with HIV prevention, treatment and care.

This report details research into the key influencers for participation in Workplace HIV/AIDS Voluntary Counselling and Testing among workers in a manufacturing company.

1.2 Background to Voluntary Counselling and Testing (VCT)

Voluntary HIV counselling and testing (VCT), for the human immunodeficiency virus (HIV), is the process whereby an individual voluntarily undergoes counselling to enable him/her to make an informed choice about being tested. This decision must be entirely the choice of the individual and he or she must be assured that the process will be confidential. (UNAIDS, 2002).

Voluntary Counselling and testing for HIV usually involves a 45 minute counselling session concerning the disease, the test, and suggestions for positive behavioural change. VCT centres and counsellors usually use rapid tests that require a drop of blood or some cells from the inside on one's cheek; the tests are cheap, require very little training, and provide accurate results in 15 minutes.

VCT is not only a key component of both HIV prevention and care programmes, but the *gateway* to both prevention and care. In order to respond effectively to options for each, it is preferable for one to know one's serostatus. The development of increasing numbers of effective and accessible medical and

supportive interventions for people living with HIV/AIDS (PLWHA) means that VCT services are being more widely promoted and developed. Many developing countries are gradually instituting VCT as part of their primary health-care package and VCT has also been shown to be a cost-effective HIV-prevention intervention. (UNAIDS, 2002).

Companies should consider promoting voluntary counselling and testing (VCT) for HIV. Doing so, will encourage all workers, whether they have tested positive or negative, to practice safer sex, and can help ensure that those with HIV receive care and treatment. (UNAIDS, 2003b).

1.3 Purpose of the study

The purpose of this study is to determine those factors that are deemed to be the most important influencers for workplace voluntary HIV/AIDS counselling and testing (VCT) in particular, within a soft-drink manufacturing company.

1.4 Research Problem

The *Declaration of Commitment*, resulting from the United Nations General Assembly Special Session (UNGASS) on HIV/AIDS in June 2001, highlighted the pressing need for countries to either develop or scale up Voluntary HIV Counselling and testing services.

Business enterprises have historically not perceived HIV/AIDS as a threat to operations. Few have acknowledged the potential threat to markets, and HIV/AIDS prevention and care has tended to be perceived as a medical rather than a business issue (Harrison, Smit & Myer 2000; Barnett & Whiteside 2002; Campbell, 2003). It is only recently that VCT services have been considered important entry points for prevention and care interventions for HIV/AIDS. Access to VCT services, however, remains limited and demand is often low. (UNAIDS, 2000).

Business is doing a fraction of what it can to address HIV/AIDS, and yet it makes strong business sense for companies to respond proactively to the epidemic. Increased costs, loss of productivity and overall threats to the foundations of the economies in which they operate threaten the bottom line. The workforce is placed at increasing risk, with the epidemic disproportionately affecting people during their most productive years. (Natrass *et al,* 2005).

There are numerous deterrents to being tested for HIV which may outweigh the perceived benefit of VCT, particularly in the absence of any effective treatment (Baggaley *et al,* 1998). In many high-prevalence countries, VCT is not widely available and people are often afraid of knowing their serostatus because there is little care and support available following testing. Furthermore, the quality and benefits of VCT, in particular with regard to confidentiality, counselling and access to clinical and social support, vary enormously. (UNAIDS, 2000).

While HIV testing behaviour and associated characteristics have been studied in the general population, sector specific information is largely lacking. As articulated by the International Labour Organisation (ILO, 2004), studies that contribute specifically to the multilateral effort to combat HIV/AIDS at workplaces are needed.

Workplace HIV/AIDS strategies have run into several problems; however, one difficulty lies in persuading employees to ascertain their HIV statuses, and having done so, to take advantage of HIV disease management programmes. (AIDS Update, 2002)

The need for documentation of VCT best practice models is greater than ever, given country pressures for identifying ethical approaches to counselling and testing, and for scaling up on new or existing VCT services. (UNAIDS, 2002).

Thus, the focus of this study is to assess influencers associated with Workplace HIV/AIDS Voluntary Counselling and testing within a manufacturing environment.

The aim of this research is to address the following research issue:
"To establish what employees consider to be the most important influencing factors for workplace confidential voluntary counselling and testing (VCT)."
This includes identifying and weighting each factor as previously identified in the literature review as being important.

1.4.1 The sub-issues

The research will focus on the following three sub-problems:

1. To establish the perceptions, attitudes and knowledge of employees concerning HIV/AIDS and, b) to establish the perceptions of employees concerning others' response to those people living with HIV/AIDS (PLWHA)
2. To assess how employees perceive the workplace environment regarding HIV/AIDS and VCT.
3. To identify key criteria or factors that are considered to be important influencers for VCT by employee's.

1.5 Delimitations and Limitations

The researcher was an employee at The Coca-Cola Company and worked at the company-owned Manufacturing Plant, during which time, she was exposed to the initial HIV/AIDS prevention and treatment campaign which encouraged Voluntary Counselling and Testing.

Permission was obtained to circulate an anonymous questionnaire amongst its Cape Town-based employees. Anonymity was required due to the sensitive nature of the subject being researched. The study was limited to the opinions and perceptions of those surveyed, and aimed to assess the influencers only, not whether an HIV/AIDS test had been taken.

It will not be possible to generalise the results obtained in this research against the company's other manufacturing site, nor across similar industries throughout South Africa. A separate study would need to be undertaken in order to determine results and/or similarities.

1.6 Significance of the study

It is envisaged that the results of this study will determine and weight the influencing factors for VCT services, which in turn can be included at VCT sites to assist companies seeking to maximise the uptake of workplace VCT services.

1.7 Assumptions

The following assumptions were made in this study:

I. That HIV/AIDS is, and will continue to be the primary health threat to a productive workforce in South Africa, and that, although research into vaccines is currently being undertaken, it is likely to be a decade or more before a preventative HIV vaccine is available for use (UNAIDS, 2006). Hence, the need for prevention, treatment and support programme's in the workplace, will continue to be a necessity.

II. That extended research efforts will continue to be undertaken in respect of drugs and behavioural changes that reduce the virulence and prevalence of the opportunistic diseases.

III. That discriminatory behaviour against HIV positive people is not tolerated in the workplace and that employees will have legal protection against compulsory testing and breach of confidentiality.

IV. That efforts to address HIV/AIDS-related stigma and discrimination will continue to be constrained by the complexity and deep-rooted nature of the problem.

V. That the benefits of providing a workplace HIV/AIDS programme, including prevention, treatment and care, far outweigh the costs of having to recruit and retrain new staff to replace those lost due to illness and health.

VI. That although different views exist amongst HIV/AIDS experts and company representatives, this will not influence the validity of the study.

1.8 Subsequent Chapters of the Research Report

The subsequent chapters of the Research Report are organised as follows:

Chapter 2: Literature Review

In this chapter, relevant HIV/AIDS and VCT literature is reviewed to seek solutions for the research problem posed regarding the critical influencers responsible for the uptake of VCT.

The literature review is divided into several sections. The first section provides an overview of HIV/AIDS, detailing the impact of HIV/AIDS in southern Africa, the factors attributable to the spread of the disease and the progression of the disease in the workforce. The second section provides and introduction into HIV/AIDS and the workplace, discussing information on intervention strategies and details the cost to business. The following section's identifies the importance and role of VCT in HIV/AIDS prevention and care, including known promoters of, and obstacles to, the uptake of VCT in the workplace. A specific attempt is made to review literature that identifies dimensions likely to be relevant to the uptake of VCT.

Chapter 3: Research Methodology

This chapter introduces the research methodology. It defines the research population, explains the sampling procedure used for the research, describes the study, details the construction of the questionnaire, and the data collection method. It also discusses the limitations of the research.

Chapter 4: Analysis and Interpretation of Results

In this chapter, the demographic and statistical analyses obtained from the response data are presented. Thereafter the results are evaluated and interpreted, and answers to the research questions are provided.

Chapter 5: Conclusions and recommendations

In this chapter, the main findings of the research are summarised. Implications are discussed, and recommendations for increasing the uptake of Workplace HIV/AIDS Voluntary Counselling and Testing sites are made. Suggestions for future research areas are also provided.

CHAPTER 2
LITERATURE REVIEW

2.1 Overview of HIV/AIDS

AIDS (acquired immune deficiency syndrome) is described by UNAIDS, as a late stage of infection by the human immunodeficiency virus (HIV), and results in a weakening of the immune system (notably CD4 cells), until it can no longer fight off infections such as pneumonia, diarrhea and other illnesses. Without treatment, individuals die on average nine years after infection. (UNAIDS, 2002b). Noteworthy is that the incubation period in Africa has been estimated to be between six and eight years. (Whiteside & Sunter, 2000).

When a person is infected with HIV, they are said to be HIV positive, do not feel ill at all when they are first infected, and will have no symptoms for a long time until they get AIDS. Only a blood test can prove HIV infection. The impact of AIDS is still not fully understood, particularly in the long-term. The epidemic comes in successive waves, with the first wave being HIV infection, followed several years later by a wave of opportunistic diseases, and later still by a wave of AIDS and illness and then death (Barnett & Whiteside, 2002).

Given the need to prolong the lives of those infected with HIV and with the development of effective antiretroviral therapies, “the period from HIV infection to illness and death is crucial”. (Whiteside & Sunter, 2000:9).

2.1.1 HIV/AIDS in South Africa

Aids in South Africa, is taking a devastating toll on human lives. According to the 2006 Report on the Global Aids Epidemic, South Africa’s AIDS epidemic, also cited as one of the worst in the world, shows no evidence of a decline. (UNAIDS, 2006).

The Actuarial Society of South Africa (ASSA, 2003) and U.S. Department of States estimated that there were 5.4 million people living with HIV/AIDS on 1 July 2006, giving a total population prevalence rate of 11%. (Dorrington *et al,* 2004).

In June 2007, Stats SA published a report entitled "Mortality and causes of death in SA 2005" showing that deaths among people 15 years of age and older increased by 62% in 1997-2002, while deaths among people aged 25-44 years more than doubled. Based on the National HIV survey, which involves sampling a proportional cross section of society, the researchers estimate that 10.8% of all South Africans over the age of two years were living with HIV in 2005. Among those between 15 and 49 years old, the estimated prevalence was 16.2%. (Statistics SA, 2007).

Without effective prevention and treatment five to seven million cumulative AIDS deaths are anticipated by 2010 (with 1.5 million deaths in 2010 alone), and there will be over one million individuals sick with AIDS. The epidemic could cost South Africa as much as 17% in GDP growth by 2010. The extraction industries, education, and health are among the sectors that will be most severely affected. (U.S. Department of State, 2006).

2.1.2 The impact of HIV/AIDS in South Africa

At a human level, the financial burden of HIV/AIDS is at least 30% greater than deaths from other causes, because it affects the most productive age group (young adults), and because the costs of medication and caring for the sick are staggering and can be prolonged (Coombe, 2002). HIV/AIDS leads to financial, resource and income impoverishment (Barnett & Whiteside, 2002), and puts severe strain on individuals and households. The psychological stress that is a direct consequence of the impact of HIV/AIDS on individuals and families can compromise school and work performance, family relationships, the capacity to take care of children, and

may also culminate in risk behavior such as alcohol and drug abuse and unsafe sexual behaviour. (Coombe, 2002).

2.1.3 Factors attributable to the spread of the disease in South Africa

Various sources of literature suggest that several factors have contributed to the spread of the disease in South Africa, namely:

i. Unsuccessful AIDS awareness campaigns that influence behavioural change: The Human Development Report of 2003 offers the following background to South Africa. The country has a highly diverse population, divided by deeply rooted social inequalities and diverse ethnic backgrounds. There are 11 official languages and many dialects. Around eighty six % of the population is literate. Some live in large, crowded cities, while others live in sparsely populated rural areas, many of which are isolated, underdeveloped and lacking infrastructure. This diversity has impacted the ability to conduct successful AIDS awareness campaigns that influence people's behaviour (UNDP, 2003).

ii. Lack of political resolve: The international scientific consensus holds that antiretroviral medication is an effective treatment for HIV. However, South African President Thabo Mbeki has questioned this consensus. Science magazine (2000), have quoted claims made by the South African Government that antiretroviral medication is harmful and unsafe, and that, in order to further their profits, drug companies have exaggerated the importance of ARV treatment. These comments suggest a lack of political leadership and resolve around this issue, impacting upon developing a successful comprehensive and effective treatment protocol. (Markus & Fincham, 2000).

iii. Poverty and inequality: Poverty has been identified as a key factor increasing exposure and susceptibility to HIV/AIDS, as well as increasing the likelihood of falling ill due to opportunistic infections (Collins & Rau, 2000; WHO/UNAIDS, 2002). South African President Thabo Mbeki has highlighted poverty as a

factor contributing to the HIV/AIDS epidemic. Although many elements of Mbeki's approach to tackling the epidemic are regrettable, it is useful to consider the role of poverty as a factor contributing to the spread of HIV/AIDS, and its implications on prevention efforts. (The Lancet, 2000).

The association of poverty with increased HIV prevalence does not necessarily indicate a causal relation, but explanations have been offered at several levels as to how poverty may increase susceptibility to HIV/AIDS. (The Lancet, 2005). Eileen Stillwaggon has argued that poverty increases biological susceptibility to HIV/AIDS in the same way it does many other infectious diseases. (Stillwaggon, 2002).

In South Africa, some correlation exists between extreme poverty and high HIV prevalence, however the virus is prevalent across all sectors of society. (Inter Press Service, 2000). Whiteside & Sunter (2000), argue that good nutrition and the ability to lead a stress-free life can delay the onset of AIDS. They suggest that people in Africa are more vulnerable to opportunistic infection, given the number of diseases prevalent, versus those in the West.

iv. Treatment and the importance of ARV's: Certain politicians continue to question scientific consensus on AIDS. President Mbeki has repeatedly stressed the importance of a good diet in halting the progression of AIDS, as has the South African Health Minister Manto Tshabalala-Msimang, who famously urged people to eat lots of beetroot and garlic to fight off the illness. It can be argued that a good diet is an important part of treatment, but is no substitute for antiretroviral medication, as she has suggested. (UNAIDS, 2005)

> "The Health Minister continues to make statements that play down the importance of ARV's, and it is likely that the attitude towards the drugs taken by her and other politicians has been central to the slow rate of progress in providing access to treatment. Amongst the scientific community there is little doubt about the benefits of

> ARV's; a recent study in South Africa reported that ninety three % of HIV positive people surveyed were alive after one year of treatment." (Lawn *et al,* 2005).

However, in a recent article posted in the Business Day, on the 16th International Aids conference, Deputy Health Minister Nozizwe Madlala-Routledge, is quoted as saying : "We were embarrassed, severely embarrassed as a country." "…we have been in denial at the very highest levels". Madlala-Routledge's forthright comments are the latest signs that Health Minister Manto Tshabalala-Msimang's unconventional and inflammatory approach to combating AIDS is at odds with the views of many senior government officials. (Business Day, 2006)

The prevalence of misinformation about AIDS in South Africa has not only hampered efforts to increase access to treatment, but also created a climate of confusion in which prejudice towards people living with HIV thrives.

v. Social Stigma and discrimination: Stigma and discrimination are not only obstacles to HIV prevention, care and treatment for people living with HIV, but are among the epidemic's worst consequences. HIV-related stigma consists of negative attitudes towards those infected or suspected of being infected with HIV and those affected by AIDS by association. (UNAIDS, 2006).

> "Social stigma associated with HIV/AIDS, tacitly perpetuated by the Government's reluctance to bring the crisis into the open and face it head on, prevents many from speaking out about the causes of illness and deaths of loved ones and leads doctors to record uncontroversial diagnoses on death certificates.... The South African Government needs to stop being defensive and show backbone and courage to acknowledge and seriously tackle the HIV/AIDS crisis of its people." (The Lancet, 2005).

A study in 2002 showed that only one third of respondents who revealed their HIV positive status, were met with a positive response in their communities. One in ten said that they had been met with outright hostility and rejection. (Steinberg *et al,* 2002). When his son died of AIDS in 2005, Nelson Mandela

publicised the cause of his death in an effort to challenge the stigma that surrounds HIV infection (BBC, 2005).

vi. Gender inequality: According to UNAIDS (2006), women in sub-Saharan Africa are infected more often and earlier in their lives than men. Young women aged 15-24 are between two and six times as likely to be HIV-positive than men of a similar age. HIV prevention campaigns are aimed at encouraging people to practice safer sex by using condoms and reducing their number of sexual partners. However, women and girls in South Africa are often unable to negotiate safer sex, are frequently involved with men who have a number of sexual partners, and are also particularly vulnerable to sexual abuse and rape. Police reports suggests that in 2004-2005 there were 55 114 cases of rape in South Africa, Crime Information Analysis Centre, (AVERT, 2006).

Stigma attaches itself strongly to women because of negative assumptions made about sexual risk behaviour (UNAIDS, 2006). The social restrictions faced by women mean that they are often powerless to enforce behaviour change when it comes to sexual relationships, even when they are aware of the risks involved in unprotected sex (DOH, 2006).

2.2 HIV/AIDS and the Workplace

2.2.1 Introduction

HIV poses a threat to the economic growth and development of millions of people employed in the informal sector, as it most frequently strikes adults in the prime of their working years. (UNAIDS, 2006). It is estimated that about 600 people in South Africa die of HIV-related illnesses each day. (Nattrass *et al,* 2005*).*

2.2.2 The effects of HIV/AIDS on the Workplace

The effects are evident on two levels, i.e. the macroeconomic level and the individual company levels, both of which require urgent responses if businesses are to remain competitive.

Peter Piot, executive director UNAIDS, and James Wolfenshon, President: World Bank, summarise the effects of HIV as follows: For the private sector, the implications of AIDS are felt at both the micro and macro level. The impact in the workforce is felt in greater absenteeism, high turnover and reduced productivity. At the macro level, AIDS affects the environment in which business operates, including markets, investment securities and education. (Joint United Nations Programme on HIV/AIDS, UNAIDS, The Prince of Wales Business Leaders Forum and The Global Business Coalition on HIV and AIDS, 2000).

The following model, titled "Impact of HIV/AIDS on a company" is graphically displayed in Figure 2.1. The model depicts how HIV/AIDS impacts business.

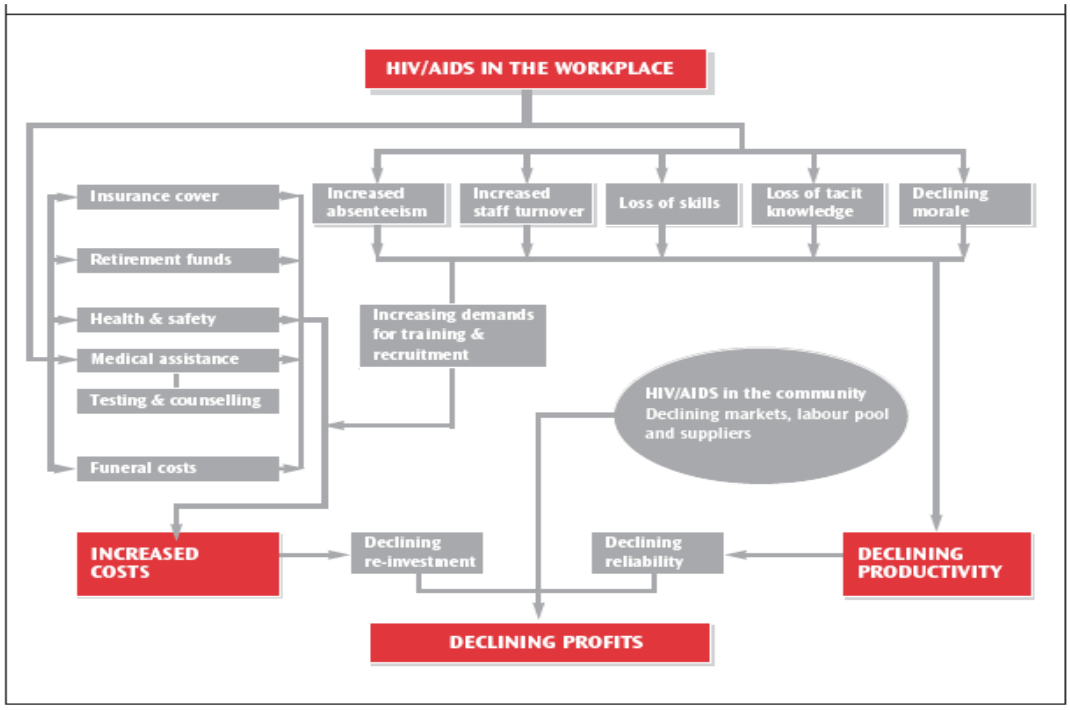


Figure 2.1. Impact of HIV/AIDS on a Company. Source: UNAIDS 2000:21

Principally, HIV/AIDS affects people within their most productive years of life (most infections occur before the age of 25), and through reduced earnings as a result of illness, care demands, higher expenditure on health care and premature death; the result is a reduction in savings rates and disposable income. In the long-term this has the combined effect of reducing the market size for business, particularly in markets outside of the basic necessities of food, housing and energy, and reducing total resources available for production and investment, and thus declining economic growth. Early results of on-going estimates by the World Bank suggest that the macroeconomic impact of HIV/AIDS may be significant enough to reduce the growth of national income by up to a third in countries with adult prevalence rates of 10%. (Binswanger & Ayres, 1999).

> "Probably one of the most important lessons to be learned by all sectors is the consequence of inaction or complacency. To deny the risks for current and future economic development in the face of an emerging epidemic and a refusal to act accordingly has serious ramifications. Low prevalence rates, if left unchecked, rapidly transform into high rates of infection with consequent social and economic costs." (UNAIDS, 2000: 17).

The South African Business Coalition on HIV and AIDS recently surveyed 1006 companies in various trade and industries, and found that 9% had suffered a significant negative impact due to AIDS. About one-third reported higher labour turnover rates, and one-quarter had incurred additional recruitment and training costs due to the epidemic. (SABCOHA, 2004).

Generally, costs to companies, associated through the disease, are expected to differ from company to company. These costs are primarily determined by the type of company, the skill-set and the replaceability of its employees. Labour-intensive industries are expected to be the most seriously affected. (Whiteside & Sunter, 2000). In order to remain sustainable, and with the increased costs associated with the disease, business is forced to take mitigating action.

Early responses to the epidemic were focused on the identification of individual risk behaviours and the prevention of new infections through modification of these behaviours. More recently, however, there has been a recognition that individual behaviour needs to be considered within its economic, social, and cultural context, otherwise efforts to alter it will ultimately fail. (The Lancet, 2000)

2.2.3 HIV prevalence rate and the benefits of early response

The World Bank has shown that once the HIV prevalence rate exceeds 4 to 5% it escalates rapidly (World Bank, 1999). Figure 2.2 shows a typical trajectory of HIV rates in southern African countries. Long-term cost benefits have been associated with early investments such as education and prevention campaigns and health care provision. Failure to respond may result in related costs increasing exponentially in association with rising HIV/AIDS rates (through rising production costs and declining productivity). According to Loewenson (1999), studies have indicated that returns, in terms of cost savings through preventing HIV/AIDS, are as high as 3.5 to 7.5 times the cost of intervention (UNDP, 2001).

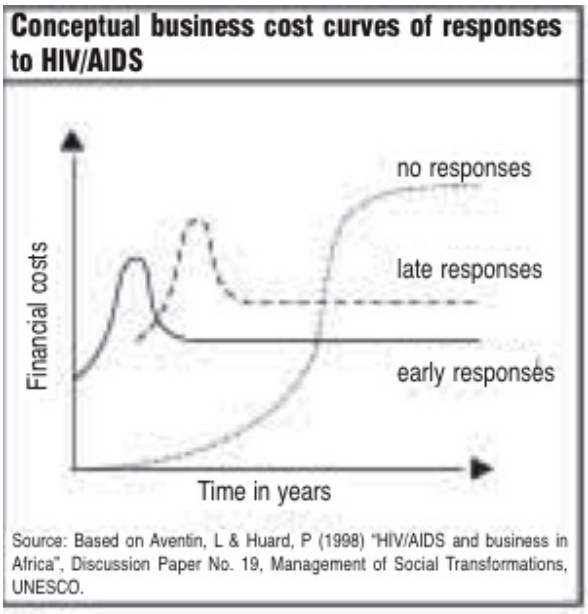


Figure 2.2. Conceptual business cost curves of responses to HIV/AIDS

Figure 2.2 depicts the conceptual business costs of responses to HIV/AIDS. An early response by companies to the disease will reduce the infection and limit the associated business cost. A late response, will see an increase in the prevalence levels and an increase in the costs to companies, while lack of, or no response, will further increase prevalence adding substantially to the business costs.

Delays in responding as shown in Figure 2.2 will increase initial intervention and ongoing costs (Aventin *et al,* 1998). In such a scenario, the return on investments in the prevention of HIV/AIDS far exceeds that of standard capital investments.

Survey results from South Africa indicate that the manufacturing sector is especially at risk of workforce impacts; nearly three-fifths of the manufacturing companies surveyed reported that HIV/AIDS had reduced labour productivity or increased absenteeism, compared to just one- to two-fifths of companies in other sectors (Ellis & Terwin, 2003).

2.2.4 Potential impact of Antiretroviral treatment (ART)

According to Dorrington *et al,* (2004), treatment in the form of ART's could, reduce the number of AIDS deaths per year.

The ASSA model (Figure 2.3), is produced by the Actuarial Society of South Africa under the leadership of Prof. Dorrington and Leigh Johnson at the University of Cape Town. This model is based on a thorough analysis of a range of epidemiological and demographic data including antenatal surveys. The model allows for several behaviour and treatment interventions and a plausible pace of implementation is used as the default scenario for future projections.

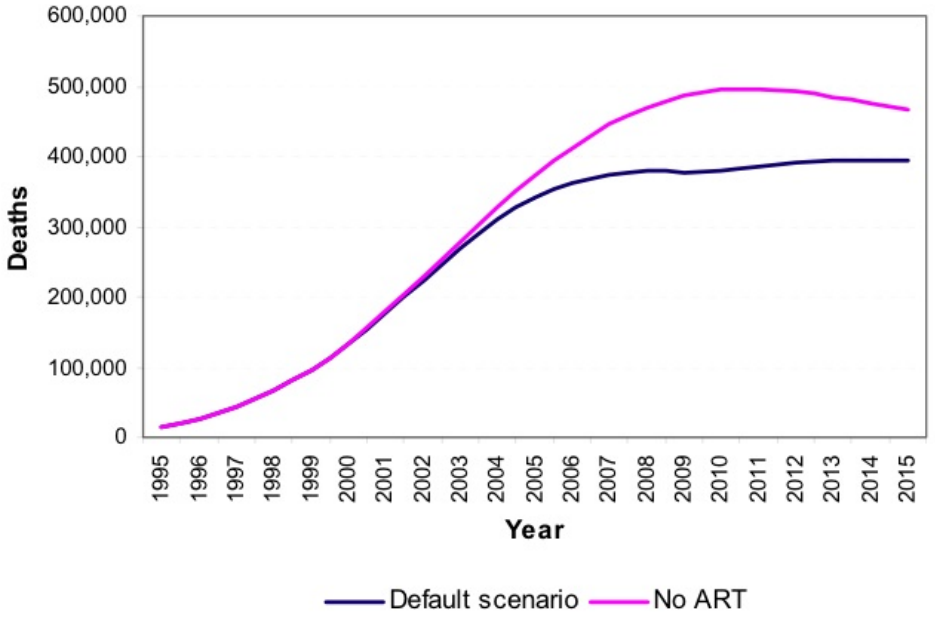


Figure 2.3: Projected number of AIDS deaths by level of coverage of national ART programme, ASSA2003

In the absence of antiretroviral therapy, (Dorrington *et al,* 2004), Aids-related deaths would rise to nearly half a million a year by 2010. However, depending on the extent of the drug rollout, antiretroviral therapy is expected to keep this number at between 290 000 (if 90% coverage is achieved within nine years) and 450 000 (if only 20% coverage is achieved). The projections show that interventions have, and are having a significant impact on the course of the epidemic. The Prevention of Mother to Child Transmission (MTCT) programme has reduced the number of babies infected, and a behaviour change, in particular, has seen an increase in condom use and has reduced the number of adults infected. (Dorrington *et al,* 2004).

The national ART programme can be expected to play a particularly important role in the future outcome of the epidemic. For example, as shown in Figure 2.3, the model projects that by 2010, there are likely to be roughly 388 000 AIDS

deaths per annum rather than the 505 000 that would have been expected if no ART programmes were introduced. In the default scenario, it is assumed that only about half of South Africans who need ART will be able to access it. If we assume that only 90% manage to access ART then the estimated number of AIDS deaths in 2010 increases to 450 000, but if the proportion is as high as 90%, the number of AIDS deaths would be reduced to 291 000. (Dorrington *et al,* 2006).

The ART programme, therefore is expected to play an important role in prolonging life expectancy. Already in 2004, the HIV/AIDS pandemic has taken about 13 years off life expectancy. Life expectancy is thus 51.0 years, rather than the 63.9 years it would have been without HIV/AIDS. Without the ART programme, the decrease in life expectancy would be 18 years by 2015, with an average life expectancy of just under 48 years. With the ART programme, the difference is expected to reduce to 15 years, giving a life expectancy of 50 years. Gaining the upper-hand against AIDS epidemics around the world will require rapid and sustained expansion in HIV prevention. (WHO/UNAIDS, 2005).

2.2.5 Intervention: Calculating the Costs to Business

A joint UNAIDS, PWBLF and Global Business Coalition on HIV/AIDS study (2000) reports a growing involvement of business in the fight against HIV/AIDS; largely as a result of the increasingly tangible impacts that HIV/AIDS is having on business operations worldwide. Building awareness of the severity of the impact of HIV/AIDS on business is one of the most important elements in assisting businesses to respond effectively. HIV/AIDS should not be viewed only as a health issue but also as an issue that goes to the very core of business practices.

It is anticipated that, over the next ten years, as the AIDS epidemic takes its toll on the economically active population, employers will incur considerable costs. However, relatively inexpensive interventions, if launched now, can yield substantial returns and save business considerable amounts of money, if such programs are implemented effectively and efficiently. Both interventions aimed at

extending the working life of currently infected employees and those aimed at preventing future AIDS deaths are economically feasible (Booysen *et al,* 2002).

The workforce is placed at increasing risk, with the epidemic disproportionately affecting people during their most productive years (Natrass *et al,* 2005). There is ample evidence to justify a comprehensive approach to managing HIV/AIDS in the workplace, including the provision of VCT. Benefits include reduced absenteeism and retraining costs, increased productivity and morale and less reliance on employee benefits (Daly, 2000; Barnett & Whiteside, 2002; Dixon *et al,* 2002; Stipp, 2002).

In the UNRISD Programme Technology paper, Waking up to Risk, Jem Bendell quotes various studies that have identified particular costs for companies in sub-Saharan Africa (Bendell, 2003).

An article in the Guardian by Terry Macalister states that AngloGold, a subsidiary of Anglo American, has calculated that nearly a quarter of its 90 000 gold and diamond mining workers are infected with HIV, costing a huge amount a year in absenteeism, early pension payouts and the need to recruit staff to replace those too ill to work. They have estimated that AIDS is costing them up to $6 for every ounce of gold produced. Anglo has become the first multinational corporation to offer its South African staff free anti-retroviral medication to tackle the growing pandemic (Macalister, 2002).

Companies have strong economic and social reasons for becoming active in promoting HIV/AIDS prevention, both in the workplace and in the community if they are to protect the bottom line (Faleyimu *et al,* 2002).

2.3 Voluntary Counselling and Testing

2.3.1 The scope of VCT

The scope and challenges of VCT have changed over the past decade. At the outset VCT was primarily used to make a diagnosis of infection in symptomatic people, to help medical management, and testing was often accompanied by minimal counselling. It was also promoted, in a piecemeal way, as a component of HIV prevention. (UNAIDS, 2000).

The process of discovering one's HIV status, irrespective of the test result, is an opportunity for education and motivation to modify behaviour aimed at reducing the risk of HIV transmission. For those infected with HIV, VCT provides a means of accessing available HIV care services such as further counselling support, preventive therapy against opportunistic infections and antiretroviral therapy (ART) (UNAIDS, 2000)

2.3.2 The importance of VCT

Voluntary counselling and testing for HIV (VCT) is now recognised as an important element of any effective HIV prevention and care Programme. (UNAIDS, 2000). It is only recently that Voluntary Counselling and Testing (VCT) services have been considered important as entry points for prevention and care interventions for people infected with HIV. (UNAIDS, 2000). According to the UNAIDS Technical Update on VCT, testing provides people with an opportunity to learn and accept their HIV serostatus in a confidential environment with counselling and referral for ongoing emotional support and medical care. (UNAIDS, 2000b).

Figure 2.4 graphically depicts the link between VCT and other services.

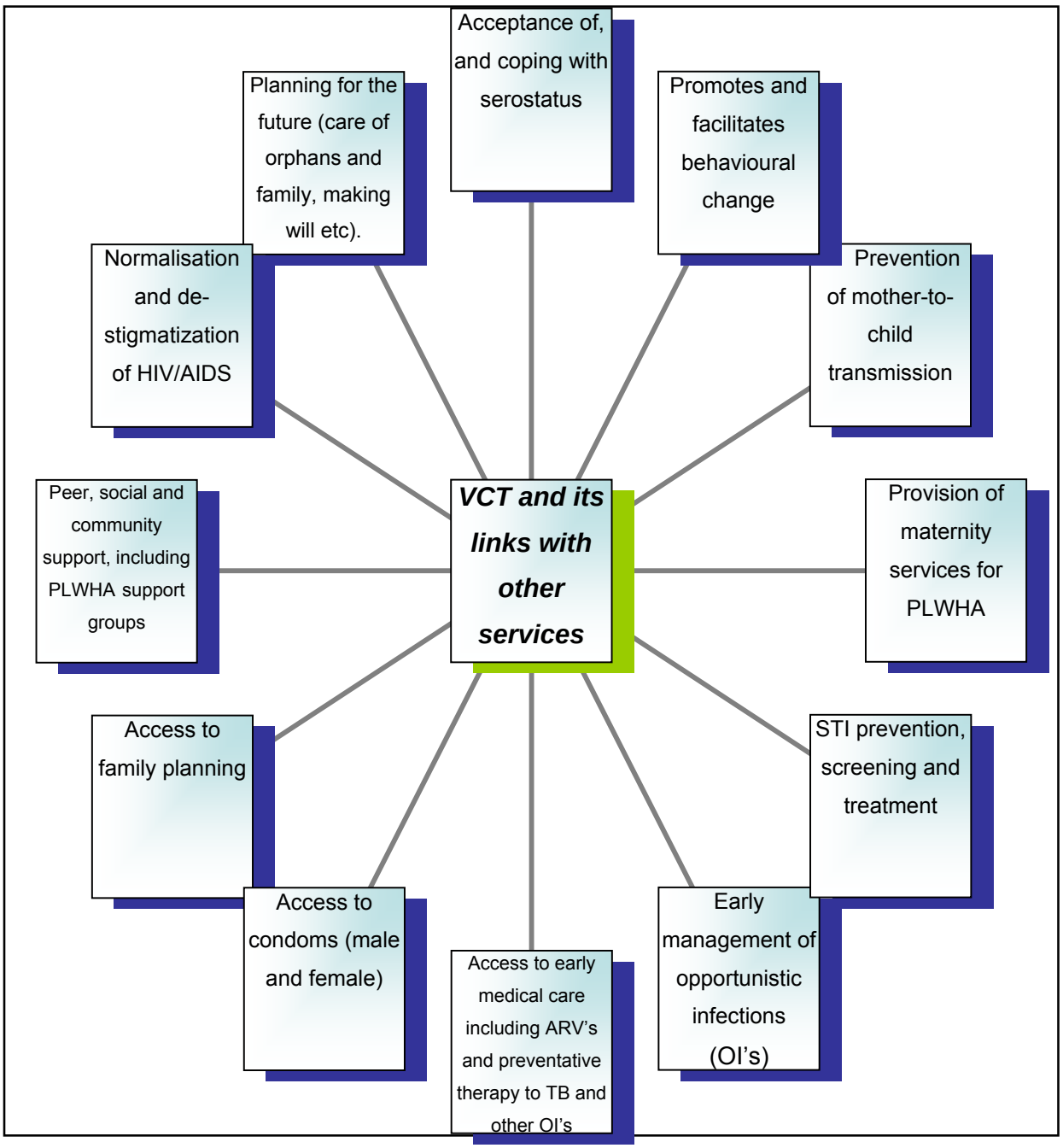


Figure 2.4 VCT as an entry point for prevention and care. Source: VCT: UNAIDS Technical Update, May 2000.

2.3.3 The role of business in VCT provision

While the well publicised and deeply damaging governmental delay in providing positive leadership shielded business' slow, erratic and partial response to HIV/AIDS, there is ample evidence to justify a comprehensive approach to managing HIV/AIDS in the workplace, including the provision of VCT (Daly 2000; Rosen, Simon, Thea & Vincent, 2000; Barnett and Whiteside, 2002; Dixon, McDonald & Roberts 2002; Stipp, 2002).

Most workplaces offer a stable environment conducive to the effective ongoing provision of information, education and skills development, as well as providing an opportunity to incorporate community and societal change. Yet only 58% of the top 50 South African companies surveyed in 2002-2003 included VCT in their HIV/AIDS policy statement (Dickinson & Innes, 2004). Small and Medium Enterprises (SMEs) continue to lag behind large corporations with regard to HIV/AIDS prevention and care, and need help in developing an appropriate workplace responses (Fraser *et al*, 2002; SABCOHA, 2004), including VCT provision.

2.3.4 Favourable workplace attributes linked to VCT

i. The workplace exerts a powerful influence on people's social attitudes, values and even sexual behaviour.
ii. In addition to earning a living, workers, whether on the factory floor, in the office, or in the mine, also interact socially, exchanging information and experiences, thus influencing one another's opinions and behaviour. Peer group pressure in this case becomes a key factor in people's thinking and behaviour.
iii. The workplace also binds people together by forming a sense of shared identity and community.

iv. Many workplaces also have existing structures such as health and safety committees, workers' committees and workers' representatives that can be mobilised in support of HIV/AIDS awareness and prevention.

v. Some workplaces have excellent medical clinics and hospitals that can provide not only information but also high-level care and support to employees with HIV/AIDS and their families.

2.4 Factors potentially affecting VCT

2.4.1 Introduction

This section will review and investigate the characteristics of successful HIV/AIDS interventions. The framework accounts for both individual and societal level determinants.

On the one hand, the societal level determinants are related to health technology (e.g. availability of HIV-antibody test), as well as to social norms and health values (e.g. perceptions toward HIV-related stigma, confidentiality of HIVtest results among service providers). Likewise, the nature of health care seeking and utilisation may be characterised differently depending on: the type of health service (e.g. hospital services, free-standing VCT site, home-based services), the purpose (e.g. preventive health services such as screening for HIV in asymptomatic population, diagnostic HIV testing), and the unit of analysis (e.g. visiting health services as a couple or as an individual; a single visit or a series of visits).

On the other hand, individual determinants that may affect health care seeking and utilisation include predisposing factors (e.g. age, sex, marital status, education level), enabling factors (e.g. affordability of costs related to VCT services, location of residence, and accessibility of services), and illness level (e.g. self-rated health status or perceived susceptibility).

In this study, it is expected that both individual and societal level determinants will be key influencers for VCT testing.

2.4.2 Socio-Demographic Characteristics

i. Age: The study conducted in Kagera region, Tanzania revealed an increasing tendency for young people to be tested for HIV especially before marriage (Lugalla *et al*, 2004). Several population based studies conducted in Tanzania and elsewhere revealed an association between testing for HIV and age; as age increases, the rate of testing for HIV decreases (Flykesnes & Siziya, 2004; Gage & Ali, 2005; Mbago, 2004; Renzi *et al*, 2001).

ii. Education: Highly educated individuals are more sensitive to the outcome of testing for HIV than less educated people (Mbago, 2004). A nationwide study of sexually active South Africans in 2002 found that highly educated adults were most likely to have undertaken VCT (HSRC, 2002).

iii. Gender: Gender in AIDS is a crosscutting issue where women are generally expected to be faithful, chaste and morally upright. In a study conducted in Soweto, women who had experienced partner abuse were more likely to be HIV-positive than those who had not. Yet when women become infected they receive a greater attribution of blame than men (Parker & Birdsall, 2005).The findings of a study conducted among pregnant women in Northern Tanzania (de Paoli *et al*, 2004) show that the rate of voluntary testing for HIV was low in rural areas (4.8%) compared to urban areas (9.2%). Perceived stigma associated with a diagnosis, the lack of services and interventions available to those who tested seropostive, and adverse consequences, particularly for women, following testing, have been reported. (Baggaley, 1997; Temmerman *et al,* 1996).

iv. Knowing someone with HIV: Studies conducted in the general population have shown a statistically significant relationship between testing for HIV and perceived susceptibility to HIV infection (Flykeness & Siziya, 2004; Gage & Ali, 2005; Holtzman *et al,* 1998). Hence, the importantance for HIV testing interventions to take into account messages that aim both at people who are

more susceptible and less susceptible to HIV infection. Research has shown that personally knowing someone who has HIV or AIDS is associated with a higher perceived risk for HIV (Henson *et al*, 1998) therefore an increased likelihood of HIV testing. It also suggests that a perception of community risk may motivate some high-risk individuals to go for testing (Downing *et al*, 2001).

v. Cultural norms and beliefs: HIV transmission is fuelled by a variety of factors, including most importantly, the local context created by local norms, myths, practices, and beliefs, as well as social, economic and human security realities. HIV prevention efforts must be tailored to respond to those norms, practices and beliefs that hamper HIV prevention. Simultaneously, those norms, practices and beliefs that potentially can support HIV prevention need to be fully harnessed.

vi. Knowledge, attitudes, practices and behaviours: If the predominant views in the community are that "HIV=AIDS=death", that "you can do nothing about it" and that HIV is a disease of "promiscuous" people, interest in VCT will be low. (UNAIDS, 2000). Personal knowledge, attitudes, practices and behaviours (KAPB) may therefore be associated with HIV test participation (UNAIDS, 2003)

2.4.3 External factors affecting HIV test participation

i. Social stigma and discrimination: Parker & Birdsall (2005) underscore the idea that 'stigma involves the social expression of negative attitudes and beliefs that contribute to processes of rejection, isolation, marginalisation and harm to others'. Ogden & Nyblade (2005) distinguish between internalised and secondary stigma. Expressions of internalised stigma include feelings of worthlessness, suicide, hopelessness, inferiority and the belief that one has no future. Secondary stigma, which occurs by association, often affects those related to the infected, such as the immediate family members, children,

friends and caregivers. Family members of the infected may experience the same expressions of blame as those infected with HIV, for instance through gossip, being socially ostracised, loss of income, employment or housing. The stigma associated with perception of HIV/AIDS as an untreatable, incurable disease has led to lack of disclosure and presentation for treatment. (UNAIDS, 1999; Maman *et al,* 2001; Barnett and Whiteside, 2002; Dallimaore *et al,* 2002; Seitz *et al,* 2002; Campbell, 2003).

ii. Stigma in the workplace: Stigma exists at every level of society, including within the workplace, and VCT services are likely to be under-utilised wherever the perceived benefits of confirmation of status are outweighed by perceived threats (Baggaley *et al,* 1998; Kelly, 2002).

A recent study (AIDS, 2002) undertaken at Eskom by Stewart, Pulerwitz and Esu-Williams reported that little was known on how best to reduce stigma in the workplace,. The key findings suggested that workers fear stigma more than discrimination from employers in the workplace. A minority of the workers (23%) were worried that they would be fired if the company learned they are HIV positive. Respondents overwhelmingly agreed that a key manifestation of stigma is the social isolation and ridicule that people with HIV/AIDS or people suspected of having HIV/AIDS experience. As one worker stated, “There are those who will tell you face to face that you are no longer needed in their friendship, those who will just isolate you.” According to a 26-year-old sexual partner of one of the workers, “People make jokes about HIV-positive people and point fingers at them.... There are so many with AIDS and so much gossip too.” (Horizons, 2002).

Priority should be given to approaches that aim to strengthen capacity for resistance among stigmatised and marginalised groups, since empirical evidence indicates that some of the most effective responses to the HIV/AIDS

epidemic have been those where affected communities have mobilized themselves to fight stigma, discrimination, and oppression (Parker *et al*, 1995).

iii. Peer educators: Workplace HIV/AIDS peer education is a core element of corporate South Africa's response to the HIV/AIDS epidemic.

iv. VCT Services: Implementation of VCT services is often limited by funding, infrastructure, trained and designated staff, clear policies on staffing and service sustainability. (UNAIDS, 2000). Some companies have initiated anonymous prevalence surveys in the workplace. Whilst such interventions assist in risk management and assessing the feasibility of providing ART treatment (UNAIDS, 2002b), they do not generate the benefits associated with individuals knowing their status and being able to act thereon.

2.5 Promoters of VCT

2.5.1 Introduction

This section reviews those factors positively associated with increased VCT.

2.5.2 Stigma-reduction activities

Findings from 2002 research on addressing HIV/AIDS stigma and discrimination in the workplace (Horizon, 2002) found that non-discriminatory workplace HIV/AIDS policies can make workers feel relatively secure from being fired from their jobs. Equally important, however, is to address social isolation and ridicule when developing stigma-reduction activities. Possible activities to promote workplace stigma-reduction include training for managers, peer educators, and counselors, and devising strategies to address secondary stigma.

The commonly reported interaction between workplace and community-based stigma calls for a coordinated response, such as offering workers and their family members a choice of using VCT services in either the community or workplace.

Because gender differences are also important, couple counselling should be emphasised to reduce blame directed only at women.

The *ILO Code of Practice on HIV/AIDS and the world of work* promotes the development of national legislation that will help address the epidemic. It states that in order to eliminate workplace discrimination and ensure workplace prevention and social protection, governments, in consultation with the social partners and experts in the field of HIV/AIDS, should provide the relevant regulatory framework and, where necessary, revise labour laws and other legislation (ILO, 2004).

It is of fundamental importance that human rights (including gender equality) are at the foundation of policies and programmes with respect to HIV prevention. HIV disproportionately affects those groups and individuals already marginalised and/or least able to realise their human rights. Prevention efforts will not be successful unless the underlying determinants of vulnerability to infection are addressed and the rights of all people are respected, promoted and protected.

The fear of discrimination post testing is felt by many employees. In order for employers to overcome this fear, they will need to go to great lengths to establish an environment in which employees perceive the benefit of knowing their serostatus early in the progression of the disease. (Harrison *et al,* 2000; Barnett & Whiteside, 2002; Campbell, 2003).

Recognising that poverty, social marginalisation, gender inequality and discrimination create conditions that increase vulnerability to HIV, the Declaration of Commitment on HIV/AIDS provides for countries to implement national policies and programmes to promote and protect the health of populations at greatest risk of HIV infection. (UNAIDS, 2006).

2.5.3 Provision of medical treatment and care

Some companies have taken the lead on the provision of antiretroviral therapy (ART) drugs to their HIV-positive employees. This has been important as many governments in affected regions, such as sub-Saharan Africa, regard the drugs as too costly to provide universally. One study suggested that the benefits to companies of investing in treatment and care are likely to exceed the costs (Rosen *et al,* 2000). The development of ARV treatment for people with HIV, less costly interventions to reduce the incidence of HIV associated infections, and relatively cheap and feasible methods to prevent MTCT, have made the need to promote VCT for people with asymptomatic disease more compelling. (UNAIDS, 2000).

Workers should have access to on-going prevention, medical care and support services i.e. wellness programmes. Where possible, assistance and medical care should be extended to immediate family members.

Care, support and treatment are fundamental elements of an effective response. To mitigate the impact of the HIV/AIDS epidemic in the workplace, counselling and other forms of social support to workers may be provided. Where health-care services exist at the workplace, appropriate treatment may also be provided, particularly for opportunistic infections. While some companies are providing treatment for STIs to reduce HIV infection rates, other companies, such as Debswana in Botswana and the CMI Company Health Centre in Côte d'Ivoire, provide antiretroviral treatment to their employees with AIDS, thus helping to prolong their lives. Where health services are not available, workers should be informed about the location of available outside services. Such linkages have the advantage of reaching beyond the workers to cover their families (particularly their children) (Aventin *et al,* 2000).

Providing medical treatment, including anti-retroviral therapy, enhances prevention efforts in several ways. The possibility of treatment can motivate people to seek voluntary counselling and testing, where they can learn their HIV status and

receive the knowledge, skills, and motivation needed to change their behavior and reduce their risk of contracting or transmitting HIV. Anti-retroviral therapy reduces the viral load by preventing the virus from reproducing in the body, thereby reducing the risk of transmission to uninfected partners and through health care settings. In addition, the availability of treatment can help reduce the stigma associated with HIV/AIDS by ending the perception that the disease is an automatic death sentence. Access to medical treatment and care; (UNAIDS, 2000).

2.5.4 Providing HIV prevention education and training

Peer education has been identified as a particularly effective awareness-raising technique, with Eskom being identified in South Africa as a pioneer of this (AIDS, 2002). Such forms of education were mentioned by a number of companies.

Research suggests that increasing one's knowledge of HIV and AIDS provides reinforcement and support for sustaining risk reduction. Personal knowledge, attitudes, practices and behaviour's (KAPB), may therefore be associated with HIV test participation

VCT should be flexible and may need specific adaptation for specific groups of people. It should also be part of a more comprehensive programme that provides ongoing HIV prevention education and information, starting with HIV and sexual health education for young people before they become sexually active, and reinforced at other contacts with health workers. Innovative strategies are important to reach marginalised groups and groups who are not regularly in contact with formal health sector (UNAIDS, 2000).

The ILO code of practice was produced in response to many requests for guidance, especially from employers. It is intended to help reduce the spread of HIV and mitigate its impact on labour and enterprises. It contains fundamental principles for policy development, and practical guidelines, from which concrete responses can be developed at the enterprise, community and national levels in

the following key areas: Prevention through education and practical support for behavioural change; Non-discrimination and protection of workers' rights, including employment security, Entitlement to benefits, and gender equality; care and support, including confidential voluntary counselling and testing, as well as Treatment in settings where local health systems are inadequate. As a voluntary instrument, the code is adaptable to a variety of situations and different levels of resources.

According to a recent UNAIDS report, in order to be successful, a workplace HIV-prevention education programme needs to incorporate the following components (UNAIDS):

- Provide basic information about HIV and AIDS, on fair treatment of people living with HIV or AIDS, and on the enterprise's policy;
- Discuss and promote prevention methods;
- Emphasize regular and correct condom use, which is essential for the prevention of HIV and other sexually transmitted infections (STIs); if reliable and affordable condoms are not readily available, the company may consider providing condoms (free or at low cost) to its employees, through dispensing machines, company stores and clinics;
- Promote safety awareness;
- Design the programme to provide clear answers to staff members' concerns about working with people with HIV/AIDS, emphasising that casual contact at the workplace carries no risk of HIV infection; and
- Discuss occupational hazards of at-risk groups of workers, such as on-site medical staff and laboratory technicians who are regularly exposed to human blood or blood products and should be provided with first aid training, details of universal precautions and protective equipment.

If the community has received education and information on the benefits of VCT for individuals and their families, people are more likely to accept it. VCT should not only be developed in conjunction with adequate support services. There should

also be a link between the type and quality of HIV education in the community and offering VCT. (UNAIDS, 2000).

The success of VCT in Uganda, compared with other countries in sub-Saharan Africa, is thought to be in part due to the political commitment to the process as part of the overall HIV prevention and care programme (UNAIDS, 2000).

2.5.5 Trade Union collaboration

The trade union, an organisation that represents the working population, plays a very significant role in partnering with the company in the struggle against HIV/AIDS. With their presence in the workplace, unions are best placed to ensure that any plans and policies developed, both support and reach the workers they represent. Trade unions must endorse and demonstrate their support of the HIV/AIDS workplace programme and do so by leading by example. Trade unions can educate their members as well as their families about the impact of HIV/AIDS. They can also negotiate for and support the delivery of treatment and care. Importantly, it is trade unions that can also lead the fight against stigma and discrimination of workers who are HIV positive.

2.6 Area of Research

Knowing and accepting one's HIV status enables more informed planning for the future, including for one's dependents. According to the UNAIDS technical update programme (2000), experiences have shown that VCT is one of the factors that help to reduce stigma and secrecy surrounding HIV/AIDS. In order to facilitate a more rapid scaling-up of successful HIV/AIDS care and prevention activities, UNAIDS documents and disseminates models of "best practice". The need for documentation of VCT best practice models is greater than ever, given country pressures for identifying ethical approaches for counselling and testing, and for scaling up new or existing VCT services. (UNAIDS, 2001)

The literature review provides an insight into the factors that have been found to be positive influencers associated with VCT. This study investigates those factors deemed to be key influencers for workplace VCT. It is hoped that the results will assist in the design of future workplace VCT programmes that will aid in maximising participation.

In her research report, Mundy (2004), found that there were some literature evidence of factors affecting VCT uptake amongst the general population (and especially amongst high risk groups), adding that a review of HIV/AIDS journals and abstracts of HIV/AIDS conferences over a certain period, failed to identify any post-VCT research which investigated elements relating to VCT participation amongst workers in medium-sized enterprises.

This report will therefore draw from those findings and perform a similar study within a manufacturing organisation. The results will then be compared against those as identified by Mundy.

2.7 Propositions

The following propositions are being made relating to the influencers in VCT in the workplace.

Proposition 1

VCT is influenced by both external influences and internal influences i.e. socio-political context, perceived stigma and discrimination associated with HIV/AIDS and VCT and workplace policies and practices as well as belief factors.

Proposition 2

VCT is influenced by access to and provision of effective treatment

Proposition 3

VCT is influenced by personal demographic factors including age, race, gender, educational attainment and socio-economic status.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides an overview of the methodology that was used to achieve the research objective of the study. The objectives of this study were to determine and rank those factors that were deemed to be influencers in workplace HIV/AIDS voluntary counselling and testing.

This chapter describes the population and the sample, development of the instrument, and procedures used in data collection, data coding and data analysis.

3.2 Methodology

The method of research proposed for this study is a quantitative study. This was achieved via a questionnaire issued to all staff. (Appendix C). Management was also requested to complete a questionnaire which was to be used in determining how VCT was currently being offered at the workplace (Appendix D). It has been suggested that the quality of counselling is key and hence poor quality VCT services have been found to be a considerable problem in South Africa. (Viljoen, 1998). Therefore, in order to determine the key influencers within the context of this study, it was deemed important to understand the existing process used for VCT.

The survey-based measuring instrument (Appendix C) developed for this purpose was adapted and edited from that as used by Mundy (2004) in her own study and is also based on the literature review.

The survey consisted of a series of questions requiring the selection of one or more items from a list of choices, a Likert scale response and/or a weighing of items.

Broadly, the questionnaire related to the stated propositions as follows:

Proposition 1: VCT is influenced by both external influences and influences i.e. socio-political context, perceived stigma and discrimination associated with HIV/AIDS and VCT and workplace policies and practices as well as belief factors.

- Quantitative questions to establish:
  - The external influencers in HIV testing by respondents;
  - The categories and ranking of influencers within a socio-political context in HIV testing by respondents;
  - The categories and ranking of perceived stigma and discrimination as influencers in HIV testing by respondents;
  - The categories and ranking related to VCT and workplace policies and practices in HIV testing by respondents.

Proposition 2: The access to and provision of, effective treatment for both employee and immediate family members, will be an influence to VCT.

- Quantitative questions to establish:
  - The ranking of provision of ART to the infected employee;
  - The ranking of provision of ART to the infected employee's family.

Proposition 3: Demographic factors including age, race, gender, educational attainment and socio-economic status will influence VCT

- Quantitative questions to establish:
  - The categories and ranking of personal demographic factors in HIV testing by respondents.

3.3 The research population

The population for this study was comprised of all employees across all disciplines within a small soft-drink manufacturing plant based in the Western Cape. The

employer has 131 employees including 89 full time and 42 part time employees. Due to the staggered working hours and shift requirements relating to the 42 part time employees, the workforce was not static at any given point in time.

3.4 Development of the Instrument

Questions were developed to ascertain and measure the Influencers associated with workplace HIV/AIDS voluntary counselling and testing (VCT).

The questionnaire endeavours to capture the opinions and perceptions of the respondents on the importance of a number of statements.

The Influencers were measured by 18 statements concerning reasons why the respondents would be willing to undergo VCT. Respondents were asked to rate the influences on a five point Likert-scale. Respondents were also asked to expand as deemed appropriate, on additional influencers that should be considered in the future which were not listed.

The following demographic characteristics were obtained: age, gender, marital status, education, income and number of dependents.

Ethnicity was not asked for as the majority of the population were Cape Coloured.

The returned questionnaires were coded for computerised statistical analysis.
The form of the instrument was entitled “Influencing factors for workplace HIV/AIDS Voluntary Counselling and Testing” and consisted of six individual A4 pages.

3.5 The Questionnaire

3.5.1 The Questionnaire

Because the questionnaire is a self-administered one, it was argued and concluded that it needed to contain enough information to enable the respondent to fully grasp

how to answer every statement. The questionnaire (adapted from Mundy's as discussed in 3.1), included information on what the scale entailed and a brief discussion on the aspects covered by the column on the right hand side.
A five-point Likert scale to test relative importance, from not important to very important was selected.

3.5.2 Organising the number of categories

The questionnaire was subsequently divided into a number of categories that correspond to the different sections. The questionnaire (Appendix C) included four sections.:

Section 1: Section 1 contains eleven demographic items relevant to the study, e.g. background, job, dependants and access to medical insurance.

Section 2: Section 2 covers knowledge, attitudes and reaction to people living with HIV/AIDS. Five of the ten items measure the expected reaction to positive HIV/AIDS status on a five-point Likert scale (1 = Very Supportive, 3 = Unsure, 5 = Hostility with severe consequences) and the remaining five are binary response items (Yes/No) specific to HIV/AIDS.

Section 3: The work environment is covered in Section 3 with the first eight items measured on a five-point Likert scale (1 = Strongly Disagree, 3 = Neutral, 5 = Strongly Agree) while the last nine items specifically assess factors that are perceived to influence the uptake of VCT, also measured on a 5-point Likert scale (1 = No influence, 5 = Very strong influence). A separate column was inserted for those that didn't access VCT.

Section 4: The nine items in Section 4 measure additional features that could influence VCT on a five-point Likert scale (1 = No influence, 5 = Very strong influence).

Lastly, a section was provided for additional influencers not listed in the questionnaire.

3.6 Data Collection

Due to the sensitivity of the subject matter, an anonymous questionnaire was issued. To maintain confidentiality, the questionnaire did not have any identification number.

A covering letter (Appendix B), that introduced the research study, clarified the purpose of the study and identified the confidentiality nature of the study, was printed on a clear A4 sheet of paper.

The survey was run over a period of two working weeks. The blank printed questionnaires were given to the Organisation's nurse, and respondents were asked to obtain a blank questionnaire together with an unmarked envelope from the clinic which they could take them away and complete in their own time.

Completed questionnaires were returned to the clinic in a sealed envelope and inserted in the marked ballot box as provided. Respondents were given an incentive of a free lunch, to complete the questionnaire.

During the course of the survey, the Plant Manager held several meetings encouraging respondents to complete the questionnaire.

The number of questionnaires issued in total was 80. In discussions with the Plant Manager, this was deemed to be a sufficient sample taking into account that the company had at least 89 permanent employees on site at any given point.

Of the original 80 questionnaires, 68 were returned. Of the 68 returned, 65 questionnaires were answered in full and 3 questionnaires had incomplete information. The response rate was hence an excellent 85%.

A VCT site evaluation form was developed as per the UNAIDS recommendation on Tools for evaluating HIV voluntary counselling and testing (UNAIDS 2000) and given to the CCSA Manager to complete. This allowed for a comparison of those results against what is considered to be best practice, and will form a key component of the results and recommendations in Chapter 5.

3.7 The Statistical Methodology

A statistical data-analysis of the questionnaire was performed and means calculated. Underlying trends were analysed, and is discussed in the following chapter. It is envisaged that this data-analysis will aid in determining influencers in the uptake of VCT in the workplace.

3.7.1 Exploratory Data Analysis

As a first step, the data is explored and described using frequency tables for the categorical variables (the demographic variables) and graphs, e.g. pie charts and bar charts, to visually enhance the interpretation of the distribution of the variables. The Likert scale variables – the items measuring the perception of the respondents – are treated as numerical because of their inherent ordinality and summarised using descriptive statistics. Specifically, the mean, median and mode of each item are calculated.

3.7.2 Second-Stage Analyses

Various statistical techniques are used to analyse the results of the survey.

3.7.3 Spiderweb Plots

Spiderweb plots display changes in values relative to a centre point. This novel display facilitates the interpretation of differences between the means of several variables (e.g. level of education or age for the different influencer variables).

3.7.4 Clustered and Stacked Bar Charts

Bar charts are useful for summarising categorical variables. Clustering and stacking add dimensionality within the chart. Clustering splits one bar into multiple bars, and stacking creates segments in each bar

3.7.5 Boxplots

Boxplots are useful to visually display the location, spread and symmetry of numerical variables. The median, the quartiles and interquartile range, outliers, and extreme cases of individual variables are captured in the graph. The box extends from the lower quartile to the upper quartile, thus encapsulating the middle 50% of the observations. A thick line inside the box indicates the median. The whiskers extend to the smallest and largest observations, hence indicating the range of the data. Outliers are indicated separately on the plot.

Clustering the boxplots, e.g. across the level of education, allows determination of similarities and differences between variables.

3.7.6 ANOVA

In addition to graphical displays, Analysis of variance (ANOVA) is utilised to assess whether the magnitude of differences amongst the means of different variables is statistically significant or whether they can be ascribed to chance. It is used to test the hypothesis that several means are equal. This technique is an extension of the two-sample t-test. A two-way ANOVA allows one to assess the differences amongst the means of each of two factors (e.g. qualification and age), as well as possible interactions amongst the levels of the one factor with the levels of the other.

One of the important assumptions of ANOVA is that the groups have equal variances. This assumption will be assessed using Levene's Test for the equality of variances.

3.7.7 Profile Plots

Profile plots, also known as interaction plots, are useful for comparing marginal means in a model. A profile plot is a line plot in which each point indicates the estimated marginal mean of a dependent at one level of a factor. The levels of a second factor are then used to make separate lines. Parallel lines indicate that there is no interaction between factors, while nonparallel lines indicate an interaction.

3.8 Validity and Reliability

In statistics, reliability is the consistency of a set of measurements or measuring instrument. Reliability does not imply validity. A reliable measure measures something consistently, but not necessarily what it is supposed to be measuring. For example, while there are many reliable tests of specific abilities, not all of them would be valid for predicting, for example, the uptake of VCT.

Reliability is measured by Cronbach's alpha, which is a measure of a model or survey's internal consistency. Also known as a "scale reliability coefficient", Cronbach's alpha is used to assess the reliability of a rating by summarising a group of test or survey answers which measure some underlying factor. A score is computed from each item and the overall rating, called the "scale" is defined by the sum of these scores over all the items.

3.8.1 External validity

External validity is concerned with the ability of the research to be generalised across the survey population and is reliant on the use of a truly random and representative sample (Leedy and Ormrod 2001).

External validity of the quantitative research instrument and its results requires the use of a random and representative sample. In this case, efforts were made to

maximise the number of usable returns, as high return rates were considered to be essential to reduce participation bias.

According to Leedy and Ormrod (2001), " a test may be designed to measure a certain characteristic, but doesn't mean it does precisely that." The authors describe a personality test designed to measure certain characteristics, stating that the person's responses on the test are presumed to reveal relatively stable personality traits. "The question that validity asks is: Does such a test, in fact measure the person's personality, or does it measure something else altogether?" According to Leedy and Ormrod (2001), the answer depends on the extent to which the person is, or *can* be, truthful in responding.

3.8.2 Internal validity

The content or face validity refers to the extent to which the instrument provides adequate coverage of the topic under study. To achieve this, the researcher based the design of the survey questions used in a previous study, conducted by Mundy (2004).

3.9 Limitations of the research

The researcher distributed and collected responses from respondents in the Western Cape only and is therefore not a complete representation of the entire workforce.

Although influencers for VCT were asked for and rated, the researcher did not attempt to determine whether persons had or had not been previously tested. According to the report as presented by Lifeworks, the Company's service provider, 88% of employees based in the Eppingdust Plant had been tested, and based on this result, the researcher attempted to establish the influencers related to testing.

CHAPTER 4
ANALYSIS AND INTERPRETATION OF RESULTS

4.1 Introduction

This chapter presents a summary of the results and statistical analyses obtained from the research. First, the sample demographics are detailed, followed by the detailing of the results relating to knowledge and attitudes, with Influencers for workplace VCT discussed last. These results are analysed with relevance to the literature review in Chapter 2, and later discussed and interpreted in terms of each research question asked at the end of Chapter 2.
This chapter also reports on the results of the VCT Site evaluation questionnaire.

The main purpose of this study was to determine factors that are deemed to be the most important influencers for workplace HIV/AIDS VCT, in particular amongst employees in a soft-drink manufacturing plant.

4.1.1 Exploratory Data Analysis

The demographic items of Section 1 of the questionnaire (Appendix C) are summarised and graphically displayed below using tables and bar or pie charts. The responses and measures of location to the items in Sections 2, 3 and 4 are summarised in Tables within this section. Measures of location indicate the average response to a statement.

The **median** is that value which divides the ordered data set into halve. A median value of less than 3 therefore indicates that the majority of the respondents are in disagreement with the statement (or rate as having very little influence), a value of more than 3 indicates that respondents agree with the statement (or consider it as having a strong influence) while a value of 3 amounts to neutrality. **The mean,** although strictly speaking a measure of location for scale variables, has a similar

interpretation. **The modal category** designates the response that occurred with the highest frequency.

4.2 Response rate

The return rate of the 80 administered questionnaires was 85% (68 returned). Respondents were encouraged to participate and were offered a free lunch on the completion of the questionnaire. The survey was done over two weeks to allow for absenteeism. This high response rate was probably induced by the offer of a free lunch. A survey response rate of 50% is considered adequate.

4.3 Demographic analysis

A demographic outline of the sample group is presented below. This population data was obtained from the Company. It allows insight into the demographic details of the workforce. Respondents were required to provide details pertaining to their employment status, gender, job category, marital status, remuneration, dependents and availability of medical insurance.

4.3.1 Sample representation vs population

Table 4.1. Demographic comparison: sample vs population

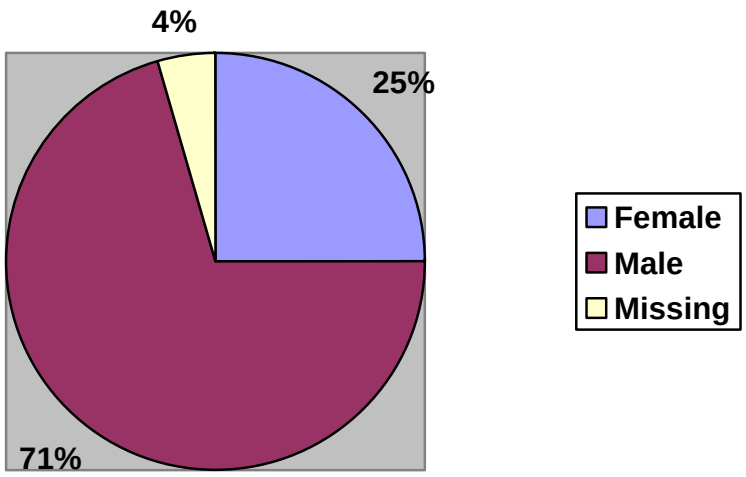
Demographics		Population	%	Sample	%
Age:	18-25	15	11%	5	7%
	26-35	29	22%	25	37%
	36-45	47	36%	24	35%
	46-55	31	24%	14	21%
	56+	9	7%	0	0%
Gender	Male	112	85%	48	71%
	Female	19	15%	17	25%
	Missing/Incomplete			3	
Job Category	Engineer/ Artisan/ Technical	17	13%	9	13%
	Operator/Forklift	68	52%	30	44%
	Clerical/Admin	11	8%	6	9%
	Laboratory/Analyst	19	15%	7	10%
	Management/Supervisory	16	12%	14	21%
	Missing			2	
	Total	**131**		**68**	

From this table it is clear that the sample is fairly representative of the population; in the age categories the 26 – 35 year old group is over-represented; proportionally more females than males were included in the sample, whilst the bulk of the sample is male; the “Operator/Forklift” category is over-represented.

4.3.2 Gender

Figure 4.1 describes the sample based upon gender demographics

Figure 4.1. Sample Gender Demographics

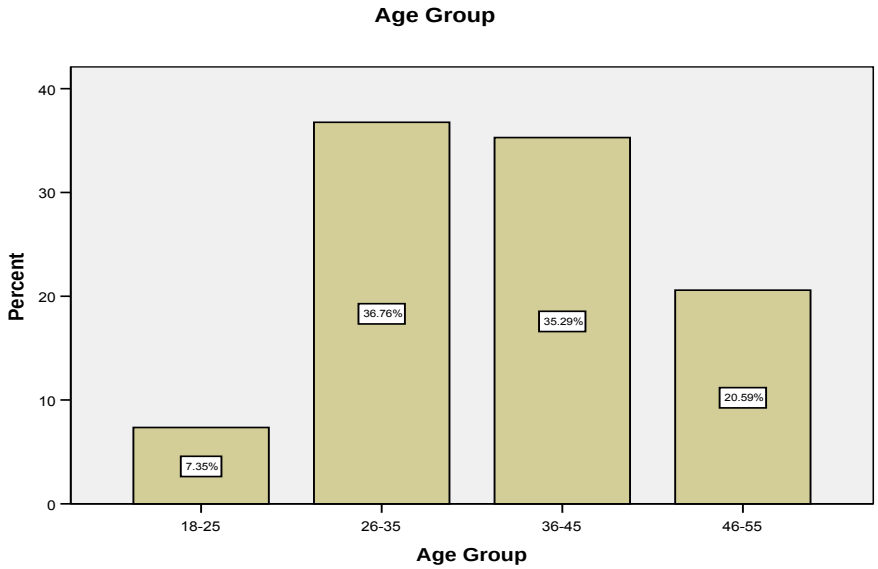


The gender breakdown of the respondents was as follows: 71% were male and 25% were female. A total of 4% of respondents failed to complete this section.

4.3.3 Age Breakdown

Figure 4.2 describes the sample based upon their age breakdown.

Figure 4.2. Sample Age Breakdown

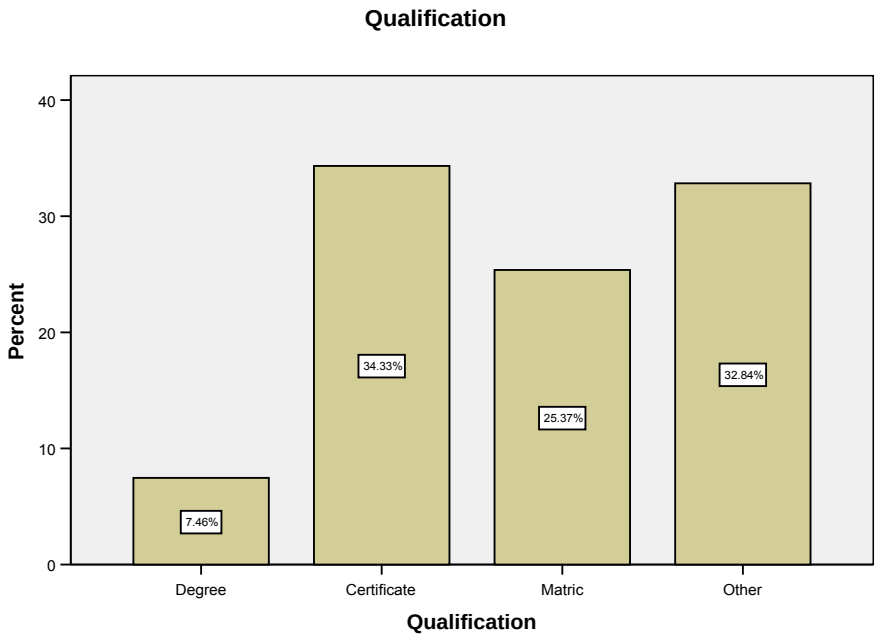


Staff under 36 years old accounted for the majority (44%) of the respondents. Staff between the ages of 36-45 years of age comprised (35%) and the balance of staff (minority) was 21% were in the age group 46-55 years old. Just over 1% of respondents did not disclose their education level.

4.3.4 Level of Education

Figure 4.3 describes the sample based upon their level of education

Figure 4.3: Sample Education level

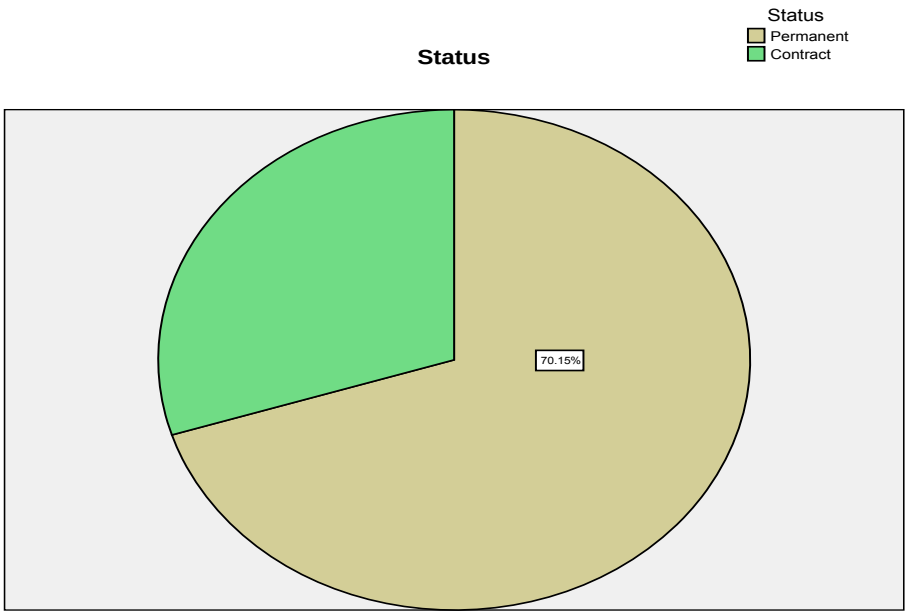


Staff educated to matric and below accounted for 57.4% of all respondents. The percentage of staff educated beyond matriculation was 41.2%

4.3.5 Sample Employment Status

Figure 4.4 describes the sample based upon their employment status.

Figure 4.4: Sample Employment Status

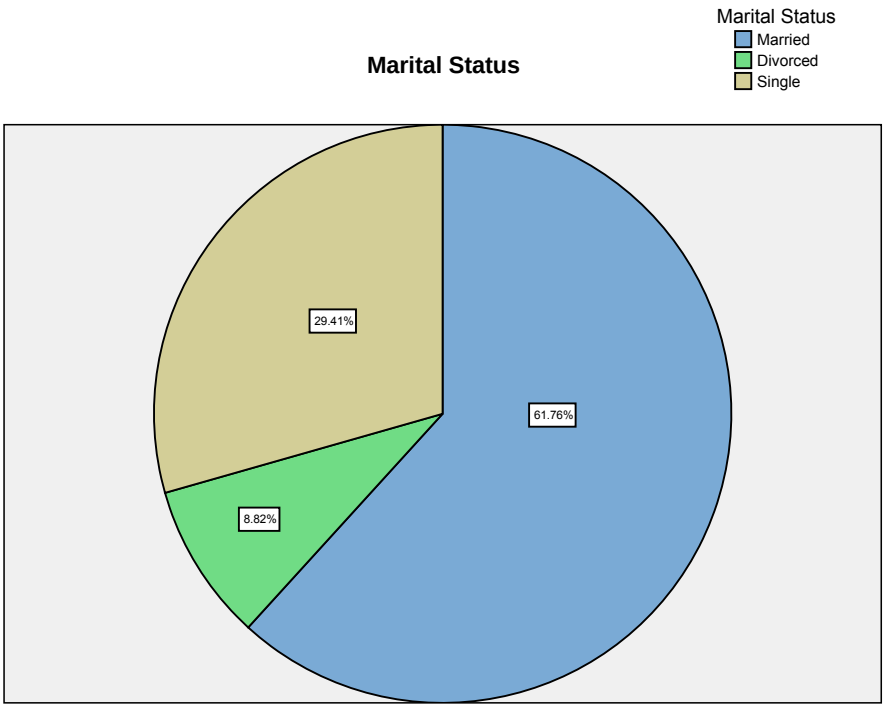


Most of respondents (70%) were permanent employees, with 30% being temporary or casual workers.

4.3.6 Marital Status

Figure 4.5 describes the sample based upon their marital status.

Figure 4.5: Sample Marital Status



The married group was the largest (61.8%) among all respondents. The single group was second (29.4%), with the smallest group (8.8%), consisting of divorced respondents.

4.3.7 Remuneration

Figure 4.6 describes the sample based upon their monthly take home pay

Figure 4.6: Sample Remuneration

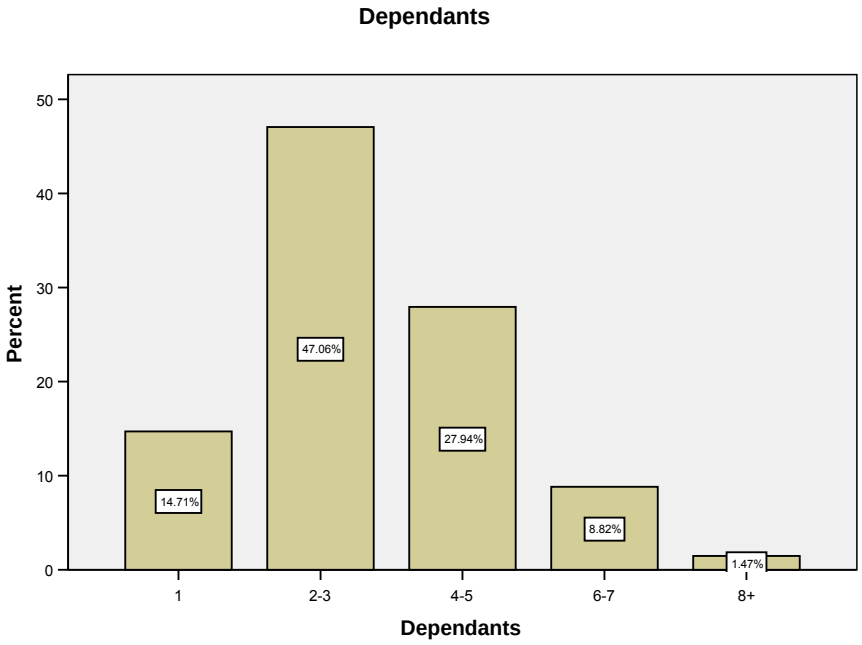


Staff earning less than R6 000 per month accounted for 36.7% of all respondents, staff earning between R6 000 and R9 000 per month accounted for 26.5% of all respondents, with 35.3% of respondents earning above R9 000 per month.

4.3.8 Dependants

Figure 4.7 describes the sample based upon their number of dependants

Figure 4.7: Sample Number of Dependants

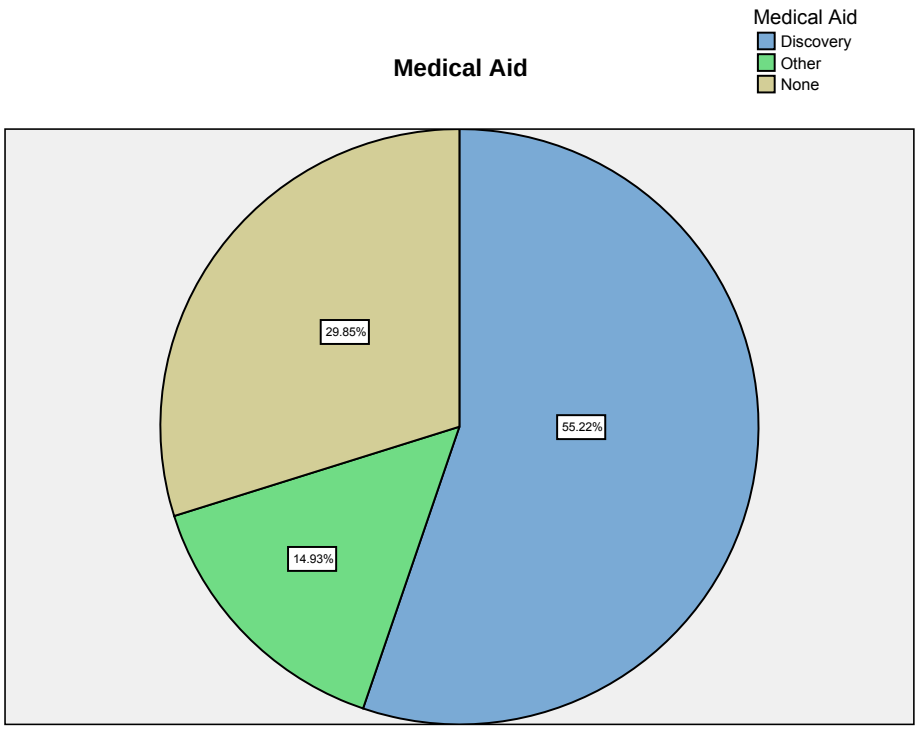


Staff with more than two dependents accounted for the majority (61.8%) of all respondents. Staff with between 4-5 dependents accounted for 27.9% of all respondents and staff with more than 6 dependents accounted for 10.3% of all respondents.

4.3.9 Medical Insurance Cover

Figure 4.8 describes the sample based upon their medical cover

Figure 4.8: Medical Insurance Cover

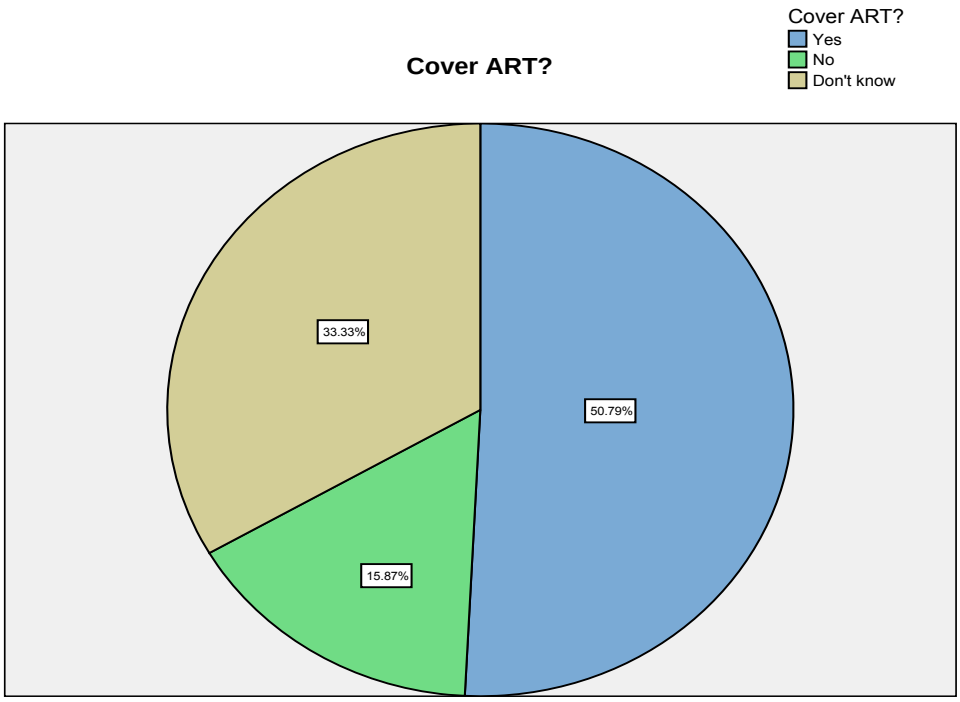


54.4% of all respondents belonged to Discovery Medical Aid, with 14.7% of the respondents being covered by another type of medical insurance. 29.4% of all respondents have no medical cover, and therefore no access to insured ART cover.

4.3.10 ART Cover

Figure 4.9 describes the sample based upon their knowledge of ART cover

Figure 4.9 : ART Cover



47.1% of all respondents answered yes to the cover of ART, 14.7% answered no, correlating to those employees not on Discovery, with 30.9% of respondents indicating that they did not know. This suggests that some members on Discovery Health were not aware that they were covered for ART.

4.4 Analysis of Research Results

In order to answer the research questions, respondents were asked questions pertaining to the following:

- Knowledge, attitudes and other peoples' reactions to people living with HIV/AIDS as follows:
  - Reactions of friends, family, co-workers, Supervisor/Manager and the Company toward them should they have HIV/AIDS
  - Knowledge about HIV/AIDS
  - HIV/AIDS and VCT in the Workplace

4.4.1 Respondents' perceptions of others' reactions to PLWHA

To determine respondents perception of other peoples' reaction to those living with HIV/AIDS, a list of questions were asked and respondents were asked to tick the appropriate answer which they felt to be most applicable. The findings for this question are summarised in Table 4.2.

Table 4.2a: Section 2 - Frequencies and descriptive statistics of the 5 items measuring reaction to HIV/AIDS status.

	Very supportive	Supportive	Unsure	Hostile	End relation ship			
	1	2	3	4	5	Mean	Median	Mode
Friend	7	23	32	6	0	2.54	3.00	3
Family	22	26	12	5	1	2.05	2.00	2
Co-worker	4	12	39	12	1	2.91	3.00	3
Supervisor	6	23	30	8	1	2.63	3.00	3
Company	12	32	21	3	0	2.22	2.00	2

All the mean values are below 3, indicating that general support from family and friends as well as from the workplace is expected, should the respondent test positive. A large number of respondents, however, were unsure about the reaction of friends, co-workers and supervisors, as indicated by the median and mode of 3 for those subgroups.

Table 4.2b: Section 2 – Percentage representation of respondents perception of peoples' reactions to PLWHA:

Reactions	Friend	Family	Co-worker	Supervisor	Company
Very supportive	7(10%)	22 (33%)	4 (6%)	6 (9%)	12 (18%)
Supportive	23 (34%)	26 (39%)	12 (18%)	23 (34%)	32 (47%)
Unsure	32 (47%)	12 (18%)	39 (57%)	30 (44%)	21 (31%)
Hostile	6 (9%)	5 (8%)	12 (18%)	8 (12%)	3 (4%)
End Relationship Effect my Work Stop me working	0	1(2%)	1 (1%)	1 (1%)	0

From Table 4.2b, the following conclusions regarding perceptions of peoples reactions to HIV/AIDS status is as follows:

i. Friends: A total of 47% of respondents were unsure how their friends would react toward them if they had HIV/AIDS. However, 34% of respondents believed that their friends would be supportive and 10% of respondents believed that their friends would be very supportive. Only 9% of respondents anticipated a hostile response from their friends in the event of a positive diagnosis.

ii. Family: When compared to family, only 18% of respondents were unsure as to how their families would react toward them if they had HIV/AIDS. The majority of respondents (26), 39% believed that their families would be supportive and 33% of respondents believed that their family would be very supportive. Only 8% of respondents anticipated a hostile response from their families. However, 2% of respondents feared that a positive diagnosis would affect their work.

iii. Co-workers: The majority of respondents, i.e. 57% were unsure how their co-workers would react. An equal percentage of respondents (18%) anticipated a reaction of unsure and hostile from their co-workers.

iv. Supervisor/Manager: A total of 44% of respondents indicated that there were unsure as to how their Supervisor/Manager would react. However, 34% of respondents anticipated support, with 12% anticipating a hostile response.

v. Company: The majority of respondents, i.e. 65% anticipated a supportive or very supportive response from the Company. A total of 31% of respondents were unsure and 4% of respondents expected that the company would stop them from working.

4.4.2 Knowledge of HIV/AIDS

To determine respondents' knowledge to HIV/AIDS, a list of simple "yes", "no" and "don't know" questions were asked as depicted in Table 4.3.

Table 4.3. Section 2 – Knowledge of HIV/AIDS

	Yes (%)	No (%)	Don't know (%)
HIV causes AIDS	60 (90%)	4 (6%)	3 (4%)
Know anyone who died of HIV/AIDS	44 (65%)	22 (32%)	2 (3%)
Know anyone with HIV/AIDS	28 (41%)	35 (52%)	5 (7%)
Medical test can determine status	53 (79%)	7 (10%)	7 (10%)
Can prolong life if status known	57 (85%)	3 (5%)	7 (10%)

i. Knowledge: From the above, it can be concluded that the majority of respondents are knowledgeable about HIV/AIDS; 65% know someone who has died of HIV/AIDS and just over 40% know someone who is HIV positive.

ii. Medical test to determine serostatus: A total of 79% of respondents believed that a medical test can determine ones HIV status, while 10% of respondents did not believe that a medical test could determine ones serostatus. Lastly, 10% of respondents indicated that they were not sure if a medial test could determine one's HIV status.

iii. Life prolong: A total of 85% of respondents were of the opinion that upon determining ones HIV status, something can be done to prolong their lives. Only 5% of respondents indicated that nothing could be done, whilst 10% of respondents were not sure.

4.4.3 HIV/AIDS and VCT in the Workplace

Respondents were asked to select categories from Strongly Disagree to Strongly Agree regarding eight distinct statements that covers HIV/AIDS and VCT in the workplace. The results are represented in Table 4.4 and summarised as follows:

Table 4.4. Section 3 - Frequencies and descriptive statistics of the eight items relating to perception of workplace environment and HIV/AIDS.

	Strongly disagree	…			Strongly agree			
	1	2	3	4	5	Mean	Median	Mode
Work environment supportive	2	5	16	34	10	3.67	4.00	4
Workplace testing reduces stigma	3	0	8	50	6	3.84	4.00	4
Management will get test results	22	19	10	10	4	2.31	2.00	1
Everyone will know tested	23	26	8	8	3	2.15	2.00	2
Couldn't tell partner	19	22	9	12	6	2.47	2.00	2
Best not to know status	34	22	1	8	2	1.88	1.50	1
Counsellors must use home language	2	1	1	35	29	4.29	4.00	4
Status will give access to medical care	3	1	1	30	33	4.31	4.00	5

Respondents agree that their work environment is supportive (66%) and that workplace testing reduces the stigma of VCT (84%), while they are confident that the results will be confidential. The majority (60%) will cope with sharing the knowledge with their partners and believe that it is best to know one's status. The importance of counsellors using the home language of the respondents is highlighted by the overwhelming number in agreement with this statement (more than 94%). More than 90% agreed with the statement that after a positive status they will be provided with access to medical treatment and care, should their status be known.

4.4.4 Influencers for VCT

Respondents were asked to rate nine key factors thought to be infuencers for VCT based upon the level of importance for each influencer or attribute. The responses were subjected to a frequency count and percentage calculation and were ranked according to the mean response in Table 4.5.

Table 4.5: Section 3 - Frequencies and descriptive statistics of the nine "influencers" items.

Influencer	No influence	Some			Very strong influence			
	1	2	3	4	5	Mean	Median	Mode
ART for family	3	3	5	25	27	4.11	4.00	5
Talks by people living with HIV/AIDS	4	6	8	29	18	3.78	4.00	4
Confidentiality	9	6	5	21	25	3.71	4.00	5
Peer educator support	5	6	15	25	14	3.57	4.00	4
Management support	6	10	12	20	17	3.49	4.00	4
Convenience	10	1	17	25	12	3.43	4.00	4
Industrial Theatre	11	5	10	14	13	3.25	4.00	4
Union support	10	9	15	15	14	3.22	3.50	3, 4[(a)]
Co-worker support	7	12	22	14	10	3.12	3.00	3

(a) Bimodal

The strongest factors relating to the increased uptake of workplace testing were found to be the availability of ART upon testing positive, talks by people living with HIV/AIDS and confidentiality, while industrial theatre, union support and co-worker support were rated less motivating. All nine "influencer" items were, however, regarded as contributing to increased uptake of workplace testing.

4.4.5 Additional Influencers for VCT

Respondents were given a further nine features in addition to those as stated above in order to determine whether they believed that these additional features would have had more success in influencing employees to get tested. The responses were subjected to a frequency count and percentage calculation.

These results are presented in Table 4.6 and the modal value for each attribute has also been included. In addition, the mean value for each attribute based upon the five-point Likert scale was also included.

Table 4.6: Section 4 – Additional features that would successfully influence VCT uptake.

Influencer	No influence	Some			Very strong influence			
	1	2	3	4	5	Mean	Median	Mode
Staff and family have access to treatment	4	1	12	25	25	3.99	4.00	4, 5[(a)]
Staff has access to treatment	4	1	17	26	19	3.82	4.00	4
Option to test monthly	4	6	14	22	21	3.75	4.00	4
Include family in talks, etc.	5	3	16	25	18	3.72	4.00	4
Offer other tests	6	7	13	23	18	3.60	4.00	4
Information in other languages	9	2	15	23	17	3.56	4.00	4
Testing not on-site	11	11	19	13	13	3.09	3.00	3
Involve local community leaders	10	13	16	19	9	3.06	3.00	4
Involve traditional healers	29	15	15	2	5	2.08	2.00	1

(a) Bimodal

Amongst the additional features that could have more success in influencing employees to get tested, access to medicines for the treatment of HIV/AIDS (for both staff and their families) were rated the highest, followed by the option to allow more time for people to choose to get tested by offering the service monthly, the inclusion of partners and/or family in the education and testing interventions, the availability of other tests at the same time (e.g. cholesterol and blood-sugar tests) and the availability of more information in languages other than English. The involvement of traditional healers in the workplace programmes is not regarded as important.

4.4.6 Conclusion: All Influencers

Table 4.7 displays all 18 “influencers, ranked in order of importance. Those items that are considered as “additional”, i.e. the statements in Section 4, are indicated in *italics*.

The responses results for all influencers are presented in rank order from highest to lowest in Table 4.7 The mean value for each attribute based upon the five-point Likert scale has also been included.

Table 4.7: Descriptive statistics of the 18 "influencer" items.

Influencer	Mean
ART for family	4.11
Staff and family have access to treatment	3.99
Staff has access to treatment	3.82
Talks by people living with HIV/AIDS	3.78
Option to test monthly	3.75
Include family in talks, etc.	3.72
Confidentiality	3.71
Offer other tests	3.60
Peer educator support	3.57
Information in other languages	3.56
Management support	3.49
Convenience	3.43
Industrial Theatre	3.25
Union support	3.22
Co-worker support	3.12
Testing not on-site	3.09
Involve local community leaders	3.06
Involve traditional healers	2.08

Table 4.7 shows that ART provision and family involvement in future interventions were perceived to be the most effective of the future interventions or influencers for VCT testing. Talks by people living with HIV/AIDS and options to test monthly were also ranked as high influencers. Traditional healer involvement was regarded as least effective.

4.5 Reliability

To assess the overall reliability of the scales, as well as for each of the different groups of items in Sections 2 to 4 as discussed above, Cronbach's alpha was computed. Reliability refers to the property of a measurement instrument that

causes it to give similar results for similar inputs, i.e. it allows one to evaluate if a set of test items can be treated as measuring a single latent variable. Cronbach's alpha will generally increase when the correlations between the items increase. For this reason the coefficient is also called the internal consistency of the test. The coefficient will be 1 if the items are all the same and 0 if none is related to another. A value of 0,7 or higher for Cronbach's alpha is generally accepted as sufficient evidence of internal consistency (to interpret a correlation coefficient, one calculates the square of the coefficient, hence alpha equal to 0.7 or higher relates to association of approximately 50% or more).

Table 4.8: Reliability analysis results.

	Cronbach's alpha
Overall	α = 0.730
Section 2a	α = 0.736
Section 3a	α = 0.442
Section 3b	α = 0.859
Section 4	α = 0.793

The results of the reliability analysis are displayed in Table 4.8. The coefficients support the premise of overall reasonable internal consistency, as well as on the items measuring reaction to people living with HIV/AIDS, and the two parts assessing factors that would increase the uptake of workplace testing. The statements relating to the workplace, half of which were phrased negatively, has a low alpha for Cronbach. This could be due to some confusion amongst the respondents in replying to negatively phrased statements.

4.6 Means Analysis

It was decided to investigate whether level of education and age could account for differences in perception with regard to the factors that will influence the

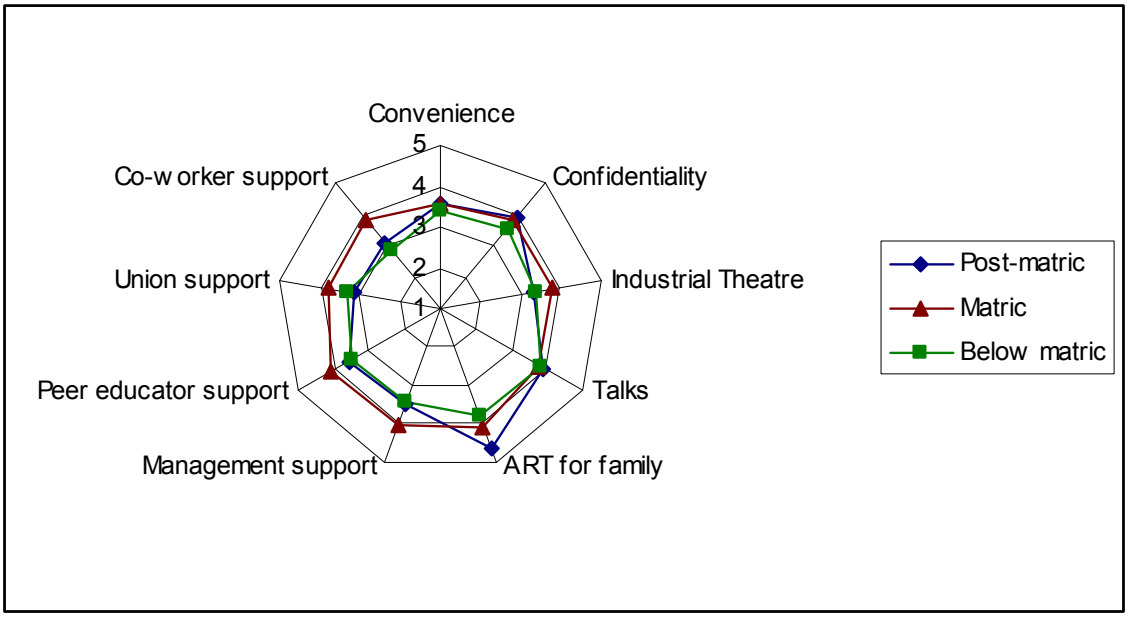
uptake of workplace HIV testing. To this end, respondents were categorised according to their age as “High risk” (18 – 35 years), “Medium risk” (36 – 45 years) and “Low risk” (older than 46 years), and according to their level of education as “Post-matric”, “Matric” and “Below matric”.

Furthermore, a new variate was constructed by calculating a summated scale for the 18 items comprising the “influencers”. A high value for a subgroup on the new influencer variate will indicate that the items comprising this variate will strongly influence the uptake of workplace HIV testing for that specific subgroup.

4.7 Spiderweb plots

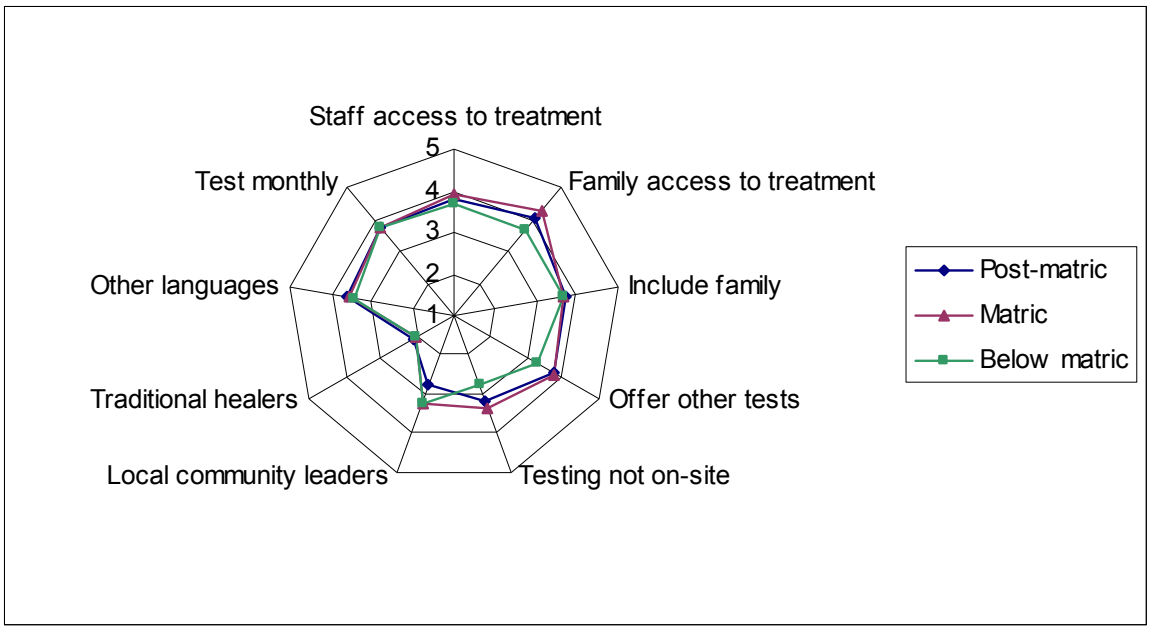
Spiderweb plots display changes in values relative to a centre point. In the plots below the values 1 to 5 represent the average overall agreement with the nine “influencers” items and with the nine items of the additional features that would successfully influence VCT uptake for each of the three qualification groups (post-matric, matric and below matric).

Figure 4.10: Spiderweb plot of perceptions of the items that will influence uptake of workplace HIV testing.



The first spiderweb plot shows that respondents with a matric qualification rate support (co-worker, union, peer and management) higher than the other groups, while respondents with a post-matric qualification rate ART for the family as a stronger influencer for the uptake of workplace HIV testing than any of the other items. For those respondents with a qualification below matric, talks and ART for the family are deemed the most important influencers.

Figure 4.11: Spiderweb plot of perceptions of additional influencers.

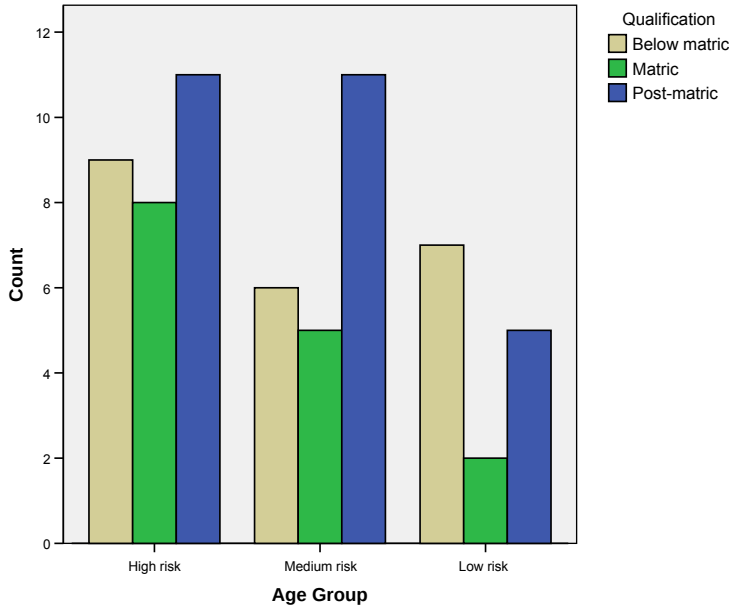


From the second spiderweb plot the lack of support for the involvement of traditional healers is apparent across all three qualification levels.

4.8 Clustered Bar Charts

The clustered bar chart in Figure 4.12 graphically displays the distribution of the qualification levels across the three age groups.

Figure 4.12: Clustered bar chart of Qualification levels vs. Age groups

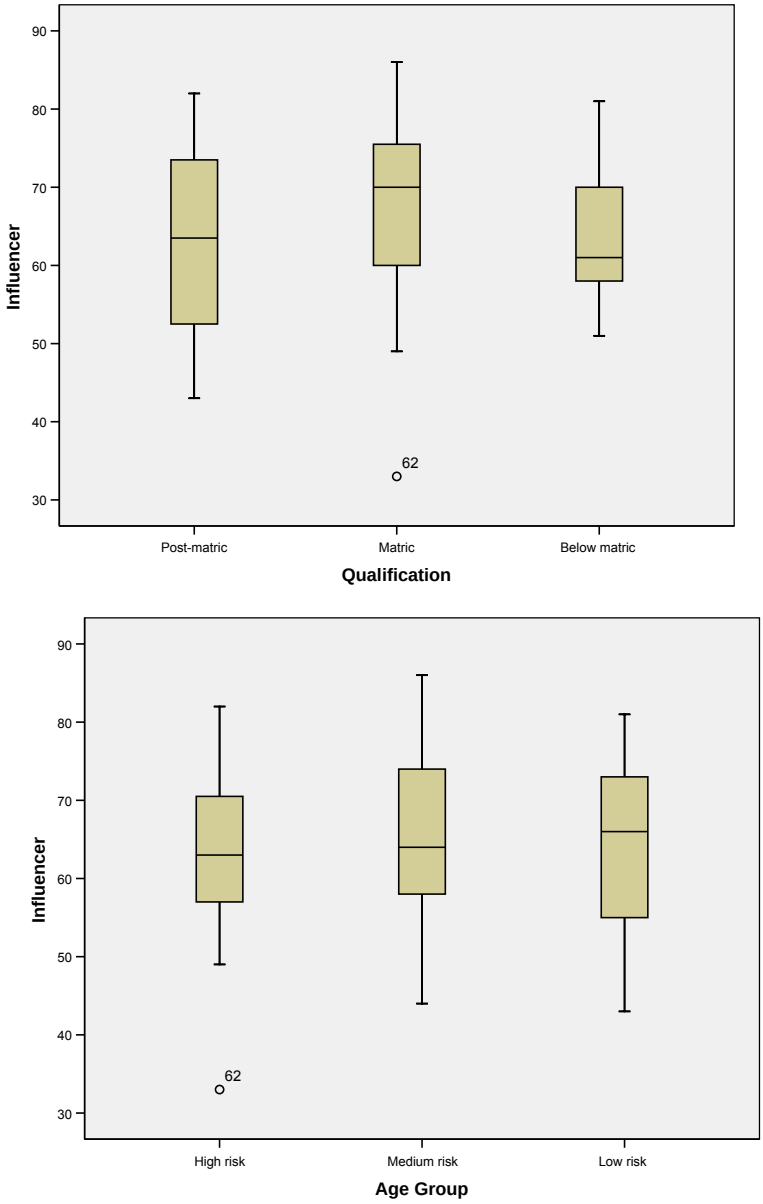


From the clustered bar It can be seen that respondents across all three age groups are well-qualified; the majority in each group have a post-matric qualification, and the respondents who matriculated (including those with a post-matric qualification) are more than those without a matric.

4.9 Boxplots

The boxplots below, also known as box-and-whisker plots, graphically illustrate the distribution of the new influencer variate across the levels of qualification and of age. Boxplots show the median, the quartiles and interquartile range, outliers, and extreme cases of individual variables. The box (usually a rectangle) extends from the lower quartile to the upper quartile, thus encapsulating the middle 50% of the observations. A thick line inside the box indicates the median. The whiskers extend to the smallest and largest observations, hence indicating the range of the data. Outliers are indicated separately on the plot. This visual display of the five values (smallest value, lower quartile, median, upper quartile and largest value) gives a clear indication of the locality, spread and symmetry of the observations.

Figure 4.13: Boxplots



Inspection of these two boxplots, reveal that the respondents with matric perceive the influencer items as more likely to persuade respondents to have an HIV tests at the workplace than those respondents without a matric qualification, while there are hardly any differences among the median responses across the three age groups.

4.10 Means

The higher mean value of the influencer variates for the respondents with matric in Table 4.9 below corresponds to the higher median value displayed in the boxplot above, hence confirming that this group perceives the influencer items as more likely to persuade respondents to have an HIV tests at the workplace than those respondents without a matric qualification, whilst the means of the three age group are very similar, in accordance with the medians.

Table 4.9: Means of Influencer vs. Qualification.

Influencer * Qualification

Qualification	Mean	N	Std. Deviation
Post matric	62.63	24	11.601
Matric	66.53	15	14.262
Below matric	63.35	17	8.268
Total	63.89	56	11.430

Table 4.10: Means of Influencer vs. Age.

Influencer * AgeRec

AgeRec	Mean	N	Std. Deviation
18-35	62.82	22	11.636
36-45	64.95	21	11.582
46-55	64.00	13	11.583
Total	64.02	57	11.366

4.11 Anova

Analysis of variance (ANOVA) is the appropriate statistical technique to evaluate whether the observed differences between several means are statistically significant at the 5% level. (The significance value, or exceedance probability, gives the probability of obtaining differences between the groups at least as large

as those observed under the null hypothesis of no group mean differences. A small significance value indicates that it is highly unlikely to obtain these differences if there were no group differences, hence the null hypothesis is rejected.) A two-way ANOVA allows one to assess the differences amongst the means of each of two factors (here qualification and age), as well as possible interactions amongst the levels of the one factor (qualification: post-matric, matric and below matric) with the levels of the other factor (age: high risk, medium risk and low risk).

4.11.1 Levene's Test

One of the assumptions of ANOVA is that the variances of the different groups are equal. Levene's test is used to determine if this assumption is met. A small asymptotic significance (< 0.05) shows that the assumption of homogeneity of variances is violated; hence the results should be interpreted with caution. Inspection of the standard deviations in the means analysis report will help to assess the magnitude of the problem. This assumption is met, as seen in Table 13 which displays the results of the two-way ANOVA (p-value for Levene's Test is 0.191)

4.11.2 Two-way anova results

The sub-table "Tests of Between-Subjects Effects" in Table 4.10 shows there are no statistically significant differences amongst the means of either the three qualification groups, or the means of the three age groups. The interaction between qualification and age, however, has a small significance value of 0.048, indicating some measure of association amongst them.

Table 4.11: Results of the two-way ANOVA – Descriptive Statistics.

Dependent Variable: Influencer

Qualification	AgeRec	Mean	Std. Deviation	N
Post matric	18-35	65.60	10.865	10
	36-45	61.44	12.156	9
	46-55	58.80	13.008	5
	Total	62.63	11.601	24
Matric	18-35	57.86	15.323	7
	36-45	75.33	8.664	6
	46-55	70.50	6.364	2
	Total	66.53	14.262	15
Below matric	18-35	64.20	5.310	5
	36-45	59.83	6.494	6
	46-55	66.17	11.356	6
	Total	63.35	8.268	17
Total	18-35	62.82	11.636	22
	36-45	64.95	11.582	21
	46-55	64.00	11.583	13
	Total	63.89	11.430	56

Levene's Test of Equality of Error Variances(a)

Dependent Variable: Influencer

F	df1	df2	Sig.
1.477	8	47	.191

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a Design: Intercept+QualRec+AgeRec+QualRec * AgeRec

Tests of Between-Subjects Effects

Dependent Variable: Influencer

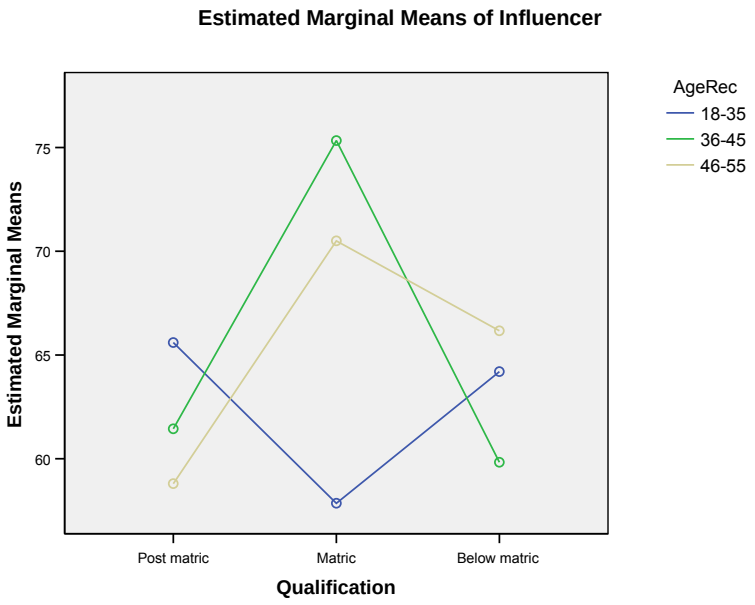
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	1470.778(a)	8	183.847	1.512	.179
Intercept	191618.393	1	191618.393	1575.980	.000
QualRec	264.312	2	132.156	1.087	.346
AgeRec	100.609	2	50.304	.414	.664
QualRec * AgeRec	1265.909	4	316.477	2.603	.048
Error	5714.579	47	121.587		
Total	235794.000	56			
Corrected Total	7185.357	55			

a R Squared = .205 (Adjusted R Squared = .069)

4.11.3 Profile plots

Profile plots (interaction plots) are useful for comparing marginal means in the model. A profile plot is a line plot in which each point indicates the estimated marginal mean of a dependent at one level of a factor. The levels of a second factor are then used to make separate lines. Parallel lines indicate that there is no interaction between factors, while nonparallel lines indicate an interaction.

Figure 4.14: Profile plot: Estimated Marginal Means of Influencer



The profile plot in Figure 4.14 shows that the higher score on the influencer variate is obtained only for the medium and low risk age groups, while respondents with matric in the age group 18 - 35 did not rate these items as likely to persuade the uptake of workplace HIV testing.

CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

In this chapter, the main findings are summarised and presented as responses to the propositions as listed earlier. Areas for future research are also suggested.

5.2 Main Findings of the Research

The main objective of this research was to identify factors that could be considered important inclusions for workplace voluntary counselling and testing. Having identified these features, it would then be useful for companies wanting to increase workplace VCT testing, to consider these for inclusion into their programmes.

The main findings of the study, with respect to the research questions stated are as follows:

Section 1: Demographics - Research question 1

The results obtained from the descriptive analyses relating to knowledge, attitudes, and other peoples' reactions to those living with HIV/AIDS.

5.2.1 Other peoples' reactions to people living with HIV/AIDS (PLWHA)

Whilst general support was expected for respondents should they test positive, as represented in Table 5.1, the following comments and observations have been made:

Table 5.1: Respondent's perception of others' response to PLWHA

Category of Individual	Very Supportive	Supportive	Unsure	Hostile	End friendship Effect Work Stop Work
Friends	10%	34%	47%	9%	0%
Family	33%	39%	18%	8%	2%
Co-workers	6%	18%	57%	18%	1%
Supervisor/ Manager	9%	34%	44%	12%	1%
Company	18%	47%	31%	4%	0%
Average	15%	35%	39%	10%	1%

For purposes of this analysis, "Very Supportive" and "Supportive" have been consolidated and will be referred to as "generally supportive". From the above it is clear that an average of 50% of the respondents believed that a positive test would result in a generally supportive environment across the various categories. However, 57% of respondents indicated that they were not sure how their co-workers would respond, with 18% of respondents anticipating a hostile response. Thus, an overwhelming 75% of respondents fell within the "Unsure" and "Hostile" categories, suggesting an urgent need for intervention.

For the Supervisor/Manager response, 44% of respondents indicated that they were unsure as to how their Supervisor/Manager would respond, with 12% of respondents anticipating a hostile response. Again, these results suggest that intervention is necessary and possible interventions will be discussed at the end of this report.

5.2.2 Knowledge and beliefs regarding HIV/AIDS

A total of 90% of the respondents believed that HIV causes AIDS, suggesting a high level of awareness of the causal relationship between HIV and AIDS. Of the remaining 10%, 6% of the respondents did not agree with the statement that HIV causes AIDS and 4% of the respondents indicated that they did not know.

A total of 79% of the respondents believed that a medical test could determine ones serostatus and 85% of respondents believed that post positive testing, life could be prolonged. This suggests a knowledgeable workforce; however, some education is still needed in this area which is hoped will motivate testing.

5.2.3 HIV/AIDS and VCT in the Workplace

Each question posed is tabled separately followed by a brief discussion thereon.

Table 5.2 " Support in the work environment"

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Work environment supportive	3%	7%	24%	51%	15%

The majority of respondents, i.e. 51% agreed that the work environment was supportive of people who have HIV/AIDS. However, the remaining 10% of respondents disagreed (7%) and strongly disagreed (3%) with the statement.

Table 5.3 " Workplace testing reduces stigma"

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Workplace testing reduces stigma	4%	0%	12%	75%	9%

An overwhelming number of respondents, i.e. 75% believed that workplace testing reduces stigma.

Table 5.4 "Management will get test results"

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Management will get my test results	35%	29%	15%	15%	6%

Whilst the majority of respondents both strongly disagreed (35%) and disagreed (29%) with the statement, 21% of respondents agreed (15%) and strongly agreed (6%) with the statement. This suggest a level of distrust against management .

Table 5.5 " Everyone would know I've been tested"

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Everyone will know I've been tested	23%	26%	8%	8%	3%

A small number of respondents (11%), agreed (8%) and strongly agreed (3%) with the statement. The majority of respondents, i.e., 49%, disagreed (26%) and strongly disagreed (23%) with the statement.

Table 5.6 "If tested positive, couldn't cope with telling partner"

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
If tested positive, couldn't cope with telling partner	19%	22%	9%	12%	6%

A small number of respondents (18%), agreed (12%) and strongly agreed (6%) with the statement. The majority of respondents, i.e. 41%, disagreed (22%) and strongly disagreed (19%) with the statement.

Table 5.7 "Its best not to know your status – you'd only worry"

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Its best not to know your status – you'd only worry	34%	22%	1%	8%	2%

Whilst the majority of respondents both strongly disagreed (34%) and disagreed (22%) with the statement, 11% of respondents agreed (8%) and strongly agreed (2%) with the statement. This finding correlates with the previous section and suggests that educational campaigns are required.

Table 5.8 "Use of home language"

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
"It Is essential that counsellors are able to talk to you in the language you use at home"	2%	1%	1%	35%	29%

The majority of respondents both strongly agreed (29%) and agreed (35%) with the statement, indicating a need to ensure that this requirement is met.

Table 5.9 "Knowing my status will provide access to medical treatment and care"

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
"Knowing my status will give me access to medical treatment and care"	3%	1%	1%	30%	33%

The majority of respondents both strongly agreed (33%) and agreed (30%) with the statement, indicating that the workforce is adequately aware of the availability of medical treatment and care.

5.3 Interpretations of the Research

5.3.1 Other peoples reactions to people living with HIV/AIDS (PLWHA)

Stigma exists at every level of society, including within the workplace, and VCT services are likely to be under-utilised wherever the perceived benefits of confirmation of status are outweighed by perceived threats (Baggaley *et al.,* 1998 and Kelly, 2002).

"Ideally, people should be able to seek and receive voluntary and confidential counselling and testing to identify their HIV status without fear of repercussions." (UNAIDS 2005)

The findings as in 5.2.3 above, suggest that the Company needs to embark on more educational campaigns, to encourage an environment of acceptance. Supervisors/Managers and co-workers need to affirm their credibility. Specific antidiscrimination measures and stigma reduction approaches need to be taken that will change the negative perceptions associated with publicising one's status.

5.3.2 Knowledge and beliefs regarding HIV/AIDS

Although most respondents have correct knowledge about HIV, some respondents' knowledge is inadequate. In order to change this knowledge and motivate testing, more intervention is needed that will offer employees an incentive to test.

Willingness of individuals to undergo VCT is influenced by a range of factors including motivation to know one's status. The recent roll-out for ARV's makes it important for workers to know and understand what these drugs could potentially mean for them should they be tested positive.

5.3.3 HIV/AIDS and VCT in the Workplace

The main findings relating to this section (refer Table 4.4) was that respondents overwhelming agreement with the statement that “It is essential that counselors are able to talk to you in the language you use at home”. This clearly indicates the need for the Company to ensure that cognisance is taken of this fact. Based on the geography and demographics of this sample, it is assumed that the respondents were referring to their home language of Afrikaans. According to the survey the Company was asked to complete, HIV testing is not done in employees home language and this was an important factor as indentified by employees.

5.3.4 Key Influencers for Workplace Voluntary counselling and Testing

The interpretation of the findings of the research can be summarised in a model that provides a framework for VCT in the workplace. Companies wishing to increase the uptake for VCT should consider incorporating these key elements into the workplace VCT in order to try and maximise the uptake.

The first major factor indentified by the respondents is the importance of ART for themselves and their families. This suggests that respondents were aware that should they be tested positive, they will have adequate access to medical treatment and care, however, workers felt a strong need to ensure that their family members would receive the same response.

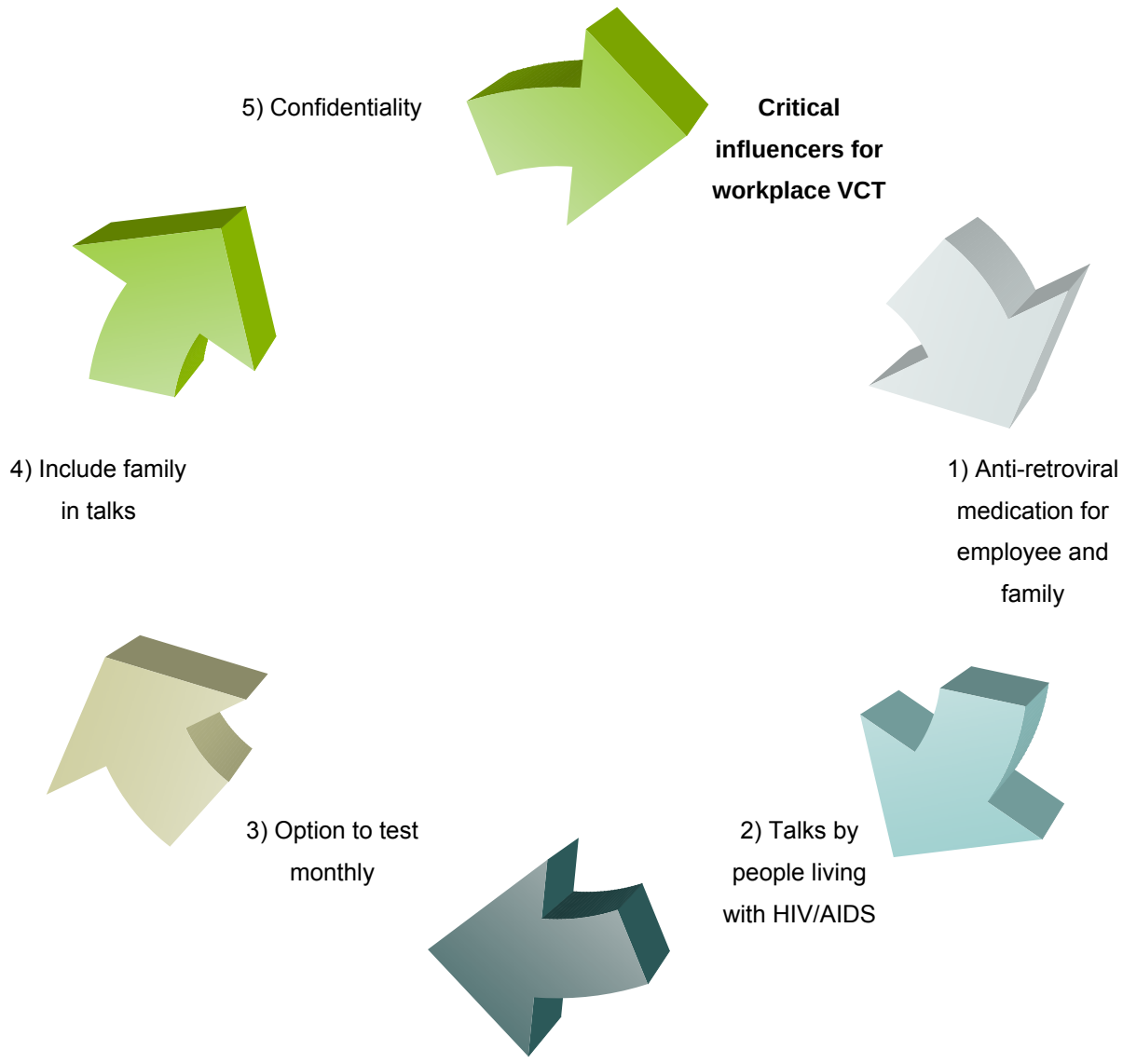
The second major influencer identified was that of talks with people living with HIV/AIDS.

The third major influencer identified is respondents request for more routine and regular testing, the indication was the need to test monthly. This requires further

investigation and inference can be made that perhaps this is a high-risk group that do not fully comprehend the need to modify high risk behavior.

The fourth major influencer was respondents need to ensure that their families are included in talks.

Figure 5.1: Key elements for incorporation into VCT



Source: Derived from study

5.4 Key findings – tested sub-groups

Differences existed with respect to key findings for respondents in the education category and will be interpreted and discussed as follows:

I. Respondents educated below matric

The key influencers for VCT for respondents educated below matric were found to be talks with people living with HIV/AIDS, thus suggesting that they believed that this would perhaps provide them with more information on HIV/AIDS which they are not able to access otherwise.

Next was ART for the family, again suggesting that this was an important element for incorporation into VCT.

II. Respondents educated up to matric

The key influencers for VCT for respondents educated up to matric rated co-worker support and union, peer and management support higher than any other group.

III. Respondents educated beyond matric

Respondents educated beyond matric rated ART for family as the strongest influence.

5.5 Conclusions and Recommendations

5.5.1 Other peoples' reactions to people living with HIV/AIDS (PLWHA)

Questions regarding perceptions of others' reactions to PLWHA were designed to identify perceptions of workplace and community support/stigma which is believed to have an effect on VCT. As perceived benefits of HIV status are

outweighed by perceived threats, VCT services will be under-utilised, and can be considered a barrier to VCT. In order to change this perception, management will need to revisit its educational campaigns and workplace policies to promote and foster a more open and accepting environment for PLWHA.

5.5.2 Knowledge and beliefs regarding HIV/AIDS

Knowledge about HIV/ AIDS has not been shown to result in behavior change by itself. Proximity to the disease (e.g., knowing someone with HIV/AIDS) has, on the other hand, been shown to be useful in educating others about the disease.

Although the results for this finding are high indicating that good knowledge exist, ongoing campaigning and promoting of VCT should be embarked upon to keep the workplace informed and to change the perceptions of those that have been found to be unsure. In order to target interventions effectively, it is important for the company to be able to guage personal beliefs and perceived influences, these results should be used to adapt these interventions accordingly.

5.5.3 HIV/AIDS and VCT in the Workplace

The results of the research show that the majority of respondents would like to be consulted in their own language. For workplace VCT to be effective, the demographics need to be considered and included as a prerequisite for VCT. The literature has suggested that in order to enhance the quality of VCT, building in self-assessments, monitoring and regular evaluation is required.

5.5.4 Key Influencers for Workplace Voluntary Counselling and Testing (VCT)

According to UNAIDS (2000), individuals base their decision on getting tested on the balance of advantages and disadvantages linked to knowing their status. Education and information on the benefits of VCT for individuals and their families is key for ensuring sufficient uptake.

The key influencers as identified in the research need to be incorporated into the elements of VCT. The demographic differences as noted by education can be used to target different sectors of the workforce. However, given that these demographics are evenly spread, this might not have the desired outcome.

5.6 VCT Site evaluation – pre-VCT intervention strategies

Before embarking on a workplace VCT initiative, companies must have firmly established their HIV/AIDS strategic intent. (Mundy, 2004). At a minimum this HIV/AIDS strategic intent must support the following elements:

- An understanding of the baseline position;
- Establishment of pre-VCT intervention strategies supported by all stakeholders;
- Promotion of HIV/AIDS policy and pre-VCT policy initiatives;
- Implementation of information, education and communication initiatives;
- Development of a post-VCT care and wellness management strategy, including strategic consideration of the involvement of external communities.

The findings of the VCT site evaluation questionnaire are summarised in Table 5.10. This table will be used to assist Coca-Cola Canners' (CCCSA) management with areas of improvement for pre-VCT intervention activities going forward.

Table 5.10: Summary of Conformance to Qualitative Study Best Practice

Factor	CCCSA	Comments	Future Intervention
1. Strategy and Implementation: *Understanding the baseline position – Baseline KAPB study and strategy*	**Yes**		
Establishing pre-VCT intervention strategies	**Yes**	Pre-test counselling is done and management support was rated as strong.	This finding suggests that best practice guidelines for top-down support are met. The description given for VCT pre-intervention strategy was that "ongoing motivation is done on site. Interventions are also done by Lifeworks"
Published and publicised policy document	**Yes**		
2. Counselling & Testing:			
Counselling	**Yes**	Pre-test, post-test and ongoing counselling is provided	
Home language	**No**	The provision of testing and counselling in languages other than English was very strong.	This has important implications in the provision of on-site VCT and needs to be included as a future intervention.
3. Confidentiality			
Confidential appointment and record keeping;	**Yes**	Confidentiality is respected	
Disguised test/test room not associated with VCT;	**No**		For discretionary purposes, a disguised site might be a consideration for VCT testing sites going forward.

Rapid test with ELISA confirmation *Extend VCT over time;*	**No** **Yes**		If the rapid test indicates the presence of the HI virus, ELISA confirmation must follow.
4. Is VCT promoted as part of HIV prevention and care services	**Yes**		Respondents are aware that should they be tested positive, access to medical treatment and care will follow, however, workers felt a strong need to ensure that their family members would receive the same response.
5. Testing *How often is VCT testing performed* *Where are test done*	 Regular intervals On-site		 Respondents have requested more routine and regular testing. Other sites and clinics need to be considered.
6. Care *Ongoing medical care* *Ongoing social support* *Support group for people living with HIV/AIDS* *Family*	 **Yes** **Yes** **No** **Yes**		 An overwhelming 75% of respondents fell within the "Unsure" and "Hostile" categories, regarding others' reactions to PLWHA, hence an urgent intervention or support group is required for people living with HIV/AIDS.

Planning *ARV interventions* *Other preventive therapies*	 **Yes** **Yes**	 Educational campaigns	

5.7 Recommendations for further research

The following areas are recommended for further study

- Determine critical barriers to VCT.

  The HSRC study identified the continuing social stigma of HIV/AIDS, and concerns relating to disclosure, as a crititical barrier to VCT and recommends further research in this area. (HSRC, 2002).

- It is recommended that this study be repeated within Coca-Cola Canners across all geographies to substantiate or disprove the specific elements of these findings. It will also be interesting to note whether differences exist in perceptions of the influencers in the different manufacturing sites where different ethnic groups are employed.

- It is also recommended that this study be repeated over time within Coca-Cola Canners' Eppingdust site to determine the effectiveness of subsequent changes based on the recommendations made.

- It is also recommended that a similar study as this be undertaken in other small manufacturing companies participating in on-site VCT interventions to substantiate or disprove the specific elements of these findings and to increase the validity of generalising the findings to wider populations.

REFERENCES

AIDS Update (2002): *Information and CPD Subcommittee of the ASSA Aids Committee,* April 2002.

Aventin, L. & Huard, P. (1998): HIV/AIDS and business in Africa, *Discussion Paper No 19,* Management of Social Transformations, UNESCO.

Aventin, L. & Huard, P. (2000): The Cost of Aids to Three Manufacturing Firms in Côte d'Ivoire, *Journal of African Economics*, 9(2):161-188.

AVERT (2006): HIV and AIDS in South Africa.
[http://www.avert.org/aidssouthafrica.htm] (Accessed 3rd June, 17th July 2006).

Baggaley, R. (1997): Fear of knowing: why 9 in 10 couples refuse HIV tests in Lusaka Zambia, *10th International Conference on AIDS and STDs.* Abidjan, Africa, Abstract number E.1266.

Baggaley, R., Kelly, M., Weinrich, S. & Kayawe, I. (1998): HIV Counselling and testing in Zambia: The Kara Counselling experience, *SafAIDS News,* 6(2), 2-8.

Barnett, T. & Whiteside, A. (2002): *AIDS in the twenty-first century: disease and globalization.* New York, Palgrave Macmillan.

BBC (2005): "*Mandela's eldest son dies of AIDs",* BBC.co.uk (2005), 6 January 2005.

Bendell, J. (2003): *Waking up to Risk: Corporate Responses to HIV/AIDS in the workplace.* UNRISD Programme on Technology, Business and Society. Paper 12, October 2003.

Binswanger, H. & Ayres, W. (1999): *HIV/AIDS Action in developing Countries* EU HIV/AIDS Programme in Developing Countries, (5), December, 1999.

Booysen, F. & Molelekoa, J. (2002): The Benefits of HIV/AIDS Intervention in the Workplace: A Case Study, *South African Journal of Economic and Management Sciences*, 5(1):180-181.

Bollinger L. & Stover J. (1999): *The economic impact of AIDS*, The Futures Group International, in collaboration with the Research Triangle Institute and the Centre for Development and Population Activities. Washington, DC.

Business Day (2006): State plaudits for AIDS activist Achmat*, Business Day,* November 2nd..

Campbell, C. (2003): *Letting Them Die,* South Africa: Double Storey, Oxford: James Currey & Indiana: Indiana University Press.

Collins, J. & Rau, B. (2000): AIDS in the context of development. UNRISD Programme on Social Policy and Development, Paper number 4, 2000, UNRISD/UNAIDS. "*Controversy dogs Aids forum*" (2000) *BBC News,* July 10th.

Coombe, C. (2002): Mitigating the Impact of HIV/AIDS on Education Supply, Demand and Quality. In *G.A. Cornia (Ed.), AIDS, Public Policy and Child Well-Being*. Florence: UNICEF-IRC.

Dallimaore, A., Stewart, R., Pulerwitz, J., Esu-Williams, E. & Mgilane, G. (2002): Understanding HIV/AIDS stigma, discrimination and disclosure, *African Conference on the Social Aspects of HIV/AIDS Research Abstracts, Pretoria, 1-4 September,* 22-23.

Daly, K. (2000): The Business Response to HIV/AIDS: Impact and lessons learned. *UNAIDS, The Prince of Wales Business Leaders Forum, The Global Business Council on HIV and AIDS.* Geneva and London: UNAIDS.

Dickinson, D. & Innes, D (forthcoming, 2004): The Response of Big Business to HIV/AIDS in South Africa, *Transformation,* 55*.*

Dixon, S., McDonald, S., & Roberts, J. (2002): The Impact on Africa's economic development. *British Medical Journal,* 324(7331): 232-237.

Department of Health South Africa (2006): *Republic of South Africa: Progress Report on Declaration of Commitment on HIV and AIDS 2006.* [http://www.doh.gov.za/docs/reports/2006/ungass/part1.pdf – Microsoft Internet E] (Accessed 14th June, 2006]

Dorrington, R.E., Bradshaw, D., Johnson, L. & Budlender, D. (2004): *The Demographic Impact of HIV/AIDS in South Africa. National indicators for 2004*.

Cape Town: Centre for Actuarial Research, South African Medical Research Council and Actuarial Society of South Africa.
2004.[http://www.avert.org/aidssouthafrica.htm accessed 14th June 2006]

Dorrington, R.E., Johnson, L., Bradshaw, D., & Daniel, T. (2006): *The Demographic Impact of HIV/AIDS in South Africa. National and Provincial Indicators for 2006.* Joint publication of the Centre for Actuarial Research, the Burden of Disease Research Unit & The Actuarial Society of South Africa.

Downing, M., Knight, K., Reiss, T. H., Vernon, K., Mulia, N., Ferreboeuf, M., Carroll, A., & Vu, C. (2001): Drug users talk about HIV testing: motivating and deterring factors. *AIDS Care*, 13(5):561- 577.

de Paoli, M.M., Manongi, R., & Klepp, K.I. (2004): Factors influencing acceptability of voluntary counselling and HIV-testing among pregnant women in northern Tanzania. AIDS Care, 16:411–425.

Ellis, Linette & Jenny, Terwin. (2003): The Economic Impact of HIV/AIDS on Business in South Africa 2003, *Bureau for Economic Research*, South Africa.

Fylkesnes, K. & Siziya, S. (2004): A randomized trial on acceptability of voluntary HIV counselling and testing. *Tropical Medicine and International Health*, 9:566-572.

Faleyimu, B.L., Ubuane, L.A., Faleyimu A.I. & Aremo, G.A. (2002): *Managing Health and Welfare Related Issues in the times of HIV/AIDS: The way forward in the world of work.* Paper presented at the 14th International AIDS conference, Barcelona 7-12th July.

Fraser. F., Grant, W., Mwanza, P. & Naidoo, V. (2002): *The Impact of HIV/AIDS on small and medium enterprises,* African Conference on the Social Aspects of HIV/AIDS Research Abstracts, Pretoria, 1-4 September, 22-23.

Gage, A. J. & Ali, D. (2005): Factors associated with self-reported HIV testing among men in Uganda. *AIDS Care*, 17:153-165.

Goodman, E. & Cohall, A. T. (1989): Acquired Immune Deficiency Syndrome and adolescence: Knowledge, attitudes, beliefs and behaviors in a New York City adolescent minority population. *Pediatrics*, 84:36-42.

Harrison, A., Smit, J. & Myer, L. (2000): Prevention of HIV/AIDS in South Africa: a review of behaviour change interventions, evidence and options for the future. *South African Journal of Science,* 96(6): 285-291.

Henson, K. D., Longshore, D., Kowalewski, M. R., Anglin, M. D. & Annon, K. (1998): Perceived AIDS risk among adult arrestee injection drug users in Los Angeles County. *AIDS Education and Prevention*, 10(5): 447-464.

Holtzman, D., Rubinson, R., Bland, S. & Mcqueen, D. (1998): HIV testing behaviour and associated characteristics among U.S. adults, 1993 and 1994. *AIDS and Behavior,* 2:269-281.

Horizons Research Update (2002): "*Addressing HIV/AIDS stigma and Discrimination in a Workplace Program: Emerging Findings*, 2002.

HSRC, (2002): *Nelson Mandela/HSRC Study of HIV/AIDS: South African National HIV Prevalence, Behavioural Risks and Mass Media,* Cape Town: HSRC.

ILO, (2004): *HIV/AIDS and work: global estimates, impact and response* (Revised edition).The ILO program on HIV/AIDS and the world of work. Switzerland: ILO.

Inter Press Service (2000): *"UN Highlights link between Aids and Poverty."* October 23rd.

Joint United Nations Programme on HIV/AIDS, (UNAIDS), The Prince of Wales Business Leaders Forum and The Global Business Coalition on HIV/AIDS (2000): *The Business Response to HIV/AIDS: Impact and Lessons Learned..* Geneva and London 2000. [http://www.data.unaids.org/Publications/IRC-pub05/JC445-BusinessResp_en.pdf] (Accessed 28 May 2005) (accessed 3rd March, 2006).

Kelly, K. (2002): Behavioural and Social Responses to HIV/AIDS: Value for Money?, *Economics and Governance in South Africa,* Kelly, Parker & Gelbeds (eds), CADRE & USAID.

Lawn, S.D., Myer, L., Orrel,l C., Bekker, L.G. & Wood R. (2005): Early mortality among adults accessing a community-based antiretroviral service in South Africa: Implications for programme design" *AIDS 2005,* 19(18): 2141-2148.

Leedy, P.D. & Ormrod, J.E. (2001): *Practical Research: Planning and Design,* seventh edition, New Jersey: Merill Prenctice Hall.

Lugalla, J., Emmelin, M., Mutembei, A., Sima, M., Kwesigabo, G., Killewo, J. & Dahlgren, L. (2004): Social, cultural and sexual behavioral determinants of observed decline in HIV infection trends: lessons from the Kagera Region, Tanzania. *Social Science and Medicine.* 59:185–198.

Loewenson, R. (1999): *HIV/AIDS and the Productive Sectors: Impacts and Actions.* Paper prepared for Business Briefings, TARSC Monograph, Harare.

Mail and Guardian Online (2006): *ARV Programme less than the sum of its (monetary) parts.* 15th March, 2006. [http://www.mg.co.za/articlePage.aspx?articleid=266801&area=%2Finsight%2Finsight__national%2F] (Accessed 17th June, 2006).

Macalister, T. (2002): *South African mining giant to give staff free Aids drugs: Anglo American is first big Company to offer treatment as disease sweeps country.* The Guardian, 7 August. [http://www.guardian.co.uk/aids/story/0,,70413,00.html#article_continue] (accessed 31st May, 2006).

Maman, S., Mbwambo, J., Hogan, N., Kilonzo, G. & Sweat, M. (2001): Women's barriers to HIV-1 testing and disclosure: challenges for HIV-1 voluntary counselling and testing, *AIDS* Care, October, 13, 5: 595-603.

Mbago, M.C.Y. (2004): Socio-demographic correlates of desire for HIV testing in Tanzania.*Sexual Health*, 1:13-21.

Mundy, J.S. (2004): *Factors Affecting the Uptake of Voluntary HIV/AIDS Counselling and Testing Services in the Workplace,* March 2004, University of the Witwatersrand.

Nattrass, N., Nielson, T., Bery, P., Mistry,N. & Sievers, S.E. (2005): *Opportunities for Business in the fight against HIV/AIDS.* A framework for analysis of the impact of HIV/AIDS on business and the benefits of direct Company action in the global response. Columbia University, the Global Business Coalition on HIV/AIDS and the University of Cape Town.

Ogden, J. & Nyblade, L. (2005): Common at its core: HIV-related stigma across contexts. *International Centre for Research on Women*.
Washington, DC.

Parker, W. & Birdsall, K. (2005): HIV/AIDS and faith-based organizations: A review centre for AIDS development. *Johannesburg Research and Evaluation (*CADRE).

Renzi, C., Zantededeschi, E., Signorelli, C. & Osborn, J. (2001): Factors associated with HIV testing: Results from an Italian general population survey. *Preventive Medicine,* 32:40-48.

Rosen, S.J., Vincent, J., Simon, G., Singh, D. M. & Thea, D. (2000): A model for *assessing the costs of workforce HIV/AIDS*. Forthcoming in the extended abstract volumes of the XIII International AIDS Conference (Durban, South Africa, 9-14 July, 2000).

Rosen, S., Simon, J., Thea, D. & Vincent, J. (2000): Care and treatment to extend the working lives of HIV-positive employees: Calculation the benefits to business. *South Africa Journal of Science, 96(6).*

SABCOHA (2003): Rapid assessment of the private sector response to HIV/AIDS in South Africa. [http://www.eldis.org/static/DOC11766.htm] (accessed 3rd February, 2006).

SABCOHA (2004): The economic impact of HIV/AIDS on business in South Africa, 2003.
[http://www.synergyaids.com/documents/SAfricaEconomicImpactonBusiness.pdf] (accessed 9th February, 2006).

Science (2000): *SOUTH AFRICA: AIDS Researchers Decry Mbeki's View on HIV*, V288 (5466) 590-591. 28th April.

Seitz, B., Staber, B. & Jonczyk, C. (2002): Dealing with the Effects of HIV/AIDS on Human Social Capital: *Daimler Chrysler South Africa Business Case Study* [http://www.hivaids.daimlerchrysler.co.za] (accessed 17th February, 2006).

Statistics South Africa (2005): *Mortality and causes of death in South Africa, 1997-2003. Findings from death notification.* Pretoria: Statistics South Africa.

[http://www.statssa.gov.za/publications/P03093/p03093.pdf] (Accessed 28 July 2007].

Statistics South Africa (2007): *Mortality and causes of death in South Africa, 2005,* Pretoria: Statistics South Africa.

Steinberg, M., Johnson S., Schierhout G. & Ndegwa, D. (2002): Hitting home: how households cope with the HIV/AIDS epidemic: *A survey of Households affected by HIV/AIDS in South Africa.* October, 2002. [http://64.233.187.104/search?q=cache:Pd4l0tbZrgQJ:www.kff.org/southafrica/loader.cfm%3Furl%3D/commonspot/security/getfile.cfm%26PageID%3D14028+steinberg+%26+Johnson+hitting+home&hl=en&gl=us&ct=clnk&cd=4] (Accessed 19th July 2006]

Stillwaggon, E. (2002): HIV/AIDS in Africa: fertile terrain. *J Dev Studies* 38**:** 1-22.

Stipp, R. (2002): *Corporate Governance and HIV/AIDS,* Paper presented at the convention of the Actuarial Society of South Africa, Johannesburg, 31 October – 1 November.

Temmerman, M., Ndinya-Achola, J., Ambani, J. & Piot P. (1996): The right not to know HIV-test results. *The Lancet,* 345, 696-7.

The Global Business Council on HIV/AIDS/The Prince of Wales Business Leaders Forum/UNAIDS (2000): *The business response to HIV/AIDS: impact and lessons learned*, Geneva and London. [http://data.unaids.org/Publications/IRC-pub05/JC445-BusinessResp_en.pdf], (accessed 3rd March, 2006) (accessed 15th June 2006).

The Lancet (2000): Mbeki defiant about South African HIV/AIDS Strategy, *The Lancet,* 356, 225-225.

The Lancet (2005): South Africa needs to face the truth about HIV mortality, *The Lancet,* 365, 9459.

UNAIDS (1999): *Company Actions on HIV/AIDS in Southern Africa,* UNAIDS Best Practice Collection, Geneva: UNAIDS.

UNAIDS (2000): *Tools for evaluating HIV voluntary counselling and testing,* UNAIDS Best Practice Collection, Geneva: UNAIDS.

UNAIDS (2000b): *Technical Update: Voluntary counselling and testing (VCT),* UNAIDS Best Practice Collection, Geneva: UNAIDS.

UNAIDS (2001): *The Impact of Voluntary Couselling and Testing: A Global Review of the Benefits and Challenges,* Geneva: UNAIDS.

UNAIDS (2002): *HIV Voluntary Counselling and Testing: a gateway to prevention and care,* UNAIDS Best Practice Collection, Geneva: UNAIDS.

UNAIDS (2002b): *Report on the global HIV/AIDS epidemic,* Geneva: UNAIDS.

UNAIDS (2003): Managing care: lessons from practice, *UNAIDS Best Practice Reports,* Geneva: UNAIDS.

UNAIDS (2003b): HIV/AIDS: It's your business, Geneva: UNAIDS.

UNAIDS (2005): *Intensifying HIV prevention:* UNAIDS policy position paper, Geneva: UNAIDS.

UNAIDS (2006): *2006 Report on the global AIDS epidemic: A UNAIDS 10th anniversary special edition,* Geneva: UNAIDS.

United Nations Development Programme. (2001): *HIV/AIDS Implications for Poverty Reduction, Policy Paper*. UNDP, Oxford: Oxford university Press.

United Nations Development Programme (2003): *Human Development Report 2003,* UNDP, Oxford: Oxford university Press.

U.S. Department of State (2006): *Bureau of African Affairs. Background Note: South Africa – HIV/AIDS* (May, 2006). [http://www.state.gov/r/pa/ei/bgn/2898.htm] (Accessed June, 2006)

WHO/UNAIDS (2002): Epidemiological Fact Sheet South Africa 2002 Update, [http://www.unaids.org/hivaidsinfo/statistics/fact_shets/pdfs/SouthAfrica_en.pdf], (accessed 6th July 2006).

WHO/UNAIDS (2005): Aids Epidemic Update 2005. [http://www.unaids.org/epi/2005/doc/EPIupdate2005_pdf_en/epi-update2005_en.pdf], (accessed 6th July 2006).

Whiteside, A. & Sunter, C. (2000): *AIDS: The challenge for South Africa*, Tafelberg: Human and Rousseau.

World Bank (1999): *Confronting AIDS: public priorities in a global epidemic,* revised edition, Oxford: Oxford University Press.

APPENDIX A: Covering letter to respondents

INFLUENCING FACTORS FOR WORKPLACE HIV/AIDS VOLUNTARY COUNSELLING AND TESTING
STAFF QUESTIONNAIRE

The purpose of this survey is to gather feedback on Voluntary Counselling and Testing (VCT) in the workplace.

Participation is voluntary and responses are **anonymous,** so please **do not** put you name on this form, and put the completed form back into its envelope before posting in the collection box at the security exit.

The data will be analysed independently at the University of the Witwatersrand and will be kept **strictly confidential.** The final report will reflect the overall opinions of staff, but no one will have access to the base data.
If you are unsure about any question, your peer educators are available to help (but cannot influence you or do anything that could breach confidentiality).

If you have any questions about the questionnaire, research or topic, the researcher can be contacted on 082 330 2530.

Your answers cannot be traced back to you, but will help to improve future HIV/AIDS workplace programmes in South Africa.

Please use pen or the gift pencil provided.

Thank you for your assistance.

APPENDIX B: QUESTIONNAIRE.

Please mark [X] the box to the left of your answer, or provide a written response where indicated.

Section 1 covers data on background, job, dependents and access to medical insurance.

1.1 Employee Status ☐ Permanent Worker ☐ Temporary/Contract Worker

1.2 Sex ☐ Female ☐ Male

1.3 What is your job category

☐ Engineer/Artisan/Technician ☐ Operator/Forklift Driver ☐ Clerical/Admin ☐ ☐ Laboratory/Analyst Management/Supervisor Other ☐

1.4 What is your highest educational qualification/school standard/apprenticeship passed (tick 1 only)

☐ Doctorate/Honours/ Masters/First degree ☐ Higher Diploma/ Occupational cert Matric ☐ Other ☐

1.5 Age Group

☐ 18-25 ☐ 35 36-45 ☐ 46-55 ☐ 56+ ☐

1.6 What is your marital Status

☐ Married/Long-term partner ☐ Divorced/Seperated ☐ Widow(er) ☐ Single

1.7 What is your typical <u>monthly take-home pay</u>?

☐ Less than R3,000 ☐ R3,001-R5,999 ☐ R6,000-R8,99(☐ R9,000-11,999 ☐ R12,000+

6.5 How many people regularly depend on your pay as their means of support?

☐ 1 (just you) ☐ 2-3 ☐ 4-5 6- ☐ 8+ ☐

6.6 Which medical schem are you a member of?

☐ Discovery ☐ Other ☐ None

6.7 Does your medical insurance cover the cost of anti-retroviral treatment (ART)/medicines to reat AIDS?

☐ Yes ☐ No ☐ Don't know

Section 2 covers knowledge, attitudes, and other people's reactions to people living with HIV/AIDS. Please mark [X] the box to the left of your answer, or provide a written response where indicated.

2.1 How do you think your <u>friends</u> would react toward you if you had HIV/AIDS?

☐ Very Supportive ☐ Supportive ☐ Unsure ☐ Hostile/afraid ☐ End the friendship

2.2 How do you think your <u>family</u> would react toward you if you had HIV/AIDS?

☐ Very Supportive ☐ Supportive ☐ Unsure ☐ Hostile/afraid ☐ Effect my work

2.3 How do you think your <u>co-workers</u> would react toward you if you had HIV/AIDS?

☐ Very Supportive ☐ Supportive ☐ Unsure ☐ Hostile/afraid ☐ Stop me working here

2.4 How do you think your <u>Supervisor/Manager</u> would react toward you if you had HIV/AIDS?

☐ Very Supportive ☐ Supportive ☐ Unsure ☐ Hostile/afraid ☐ Stop me working here

2.5 How do you think your <u>Company</u> would react toward you if you had HIV/AIDS?

☐ Very Supportive ☐ Supportive ☐ Unsure ☐ Hostile/afraid ☐ Stop me working here

2.6 Do you think that HIV causes AIDS?

☐ **Yes** ☐ **No** ☐ **Don't know**

2.7 Have you ever known anyone who has died of an HIV/AIDS related illness?

☐ **Yes** ☐ **No** ☐ **Don't know**

2.8 Do you know anyone who has HIV or AIDS?

☐ **Yes** ☐ **No** ☐ **Don't know**

2.9 Can a medical test deterime your HIV status?

☐ **Yes** ☐ **No** ☐ **Don't know**

2.10 If someone knows their HIV status, can they do anything to prolong their lives?

☐ **Yes** ☐ **No** ☐ **Don't know**

Section 3 covers workplace.

Please mark [X] the box that best describes your level of agreement with the following statements:

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.1 The work environment here is supportive of people who have HIV/AIDS	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.2 Workplace testing reduces the stigma of VCT, making it more accessible	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.3 If I were tested here at work Management would get my results	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.4 If I were tested here at work everyone would know I'd been tested	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.5 If I were tested positive, I couldn't cope with telling my partner	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.6 It's best not to know your status – you'd only worry	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.7 It is essential that counsellors are able to talk to you in the language you use at home	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
3.8 Knowing my status will give me access to medical treatment and care	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

Reasons as to why I would be willing to undergo VCT – Influencers: How would you rate these factors in <u>increasing uptake</u> of workplace testing? (Please mark X the box that best describes your opinion on each factor).

Factors	No Influence	Little Influence	Some Influence	Strong Influence	Very Strong Influence	Didn't Access
3.9 <u>Convenience</u> of the workplace testing service	No Influence	Little Influence	Some Influence	Strong Influence	Very Strong Influence	Didn't Access
3.10 <u>Confidentiality</u> of the workplace testing service	No Influence	Little Influence	Some Influence	Strong Influence	Very Strong Influence	Didn't Access
3.11 Industrial Theater	No Influence	Little Influence	Some Influence	Strong Influence	Very Strong Influence	Didn't Access
3.12 Talks by <u>People Living with HIV/AIDS</u>	No Influence	Little Influence	Some Influence	Strong Influence	Very Strong Influence	Didn't Access
3.13 Testing positive will be followed with Anti-retroviral for me and my family if needed	No Influence	Little Influence	Some Influence	Strong Influence	Very Strong Influence	Didn't Access
3.13 <u>Management</u> Support	No Influence	Little Influence	Some Influence	Strong Influence	Very Strong Influence	Didn't Access
3.14 <u>Peer educator</u> support	No Influence	Little Influence	Some Influence	Strong Influence	Very Strong Influence	Didn't Access
3.15 <u>Union</u> support	No Influence	Little Influence	Some Influence	Strong Influence	Very Strong Influence	Didn't Access
3.16 <u>Co-worker</u> support	No Influence	Little Influence	Some Influence	Strong Influence	Very Strong Influence	Didn't Access

*: Please mark N/A if you have not been exposed to any of the above

Section 4 asks for your input in developing workplace testing services

Please give your opinion whether you think the following additional features would have had more success in influencing all employees to get tested. (Please mark [X] the box that best describes your opinion).

Suggestion	No Influence	Little Influence	Some Influence	Strong Influence	Very strong influence
4.1 Ensure all staff have access to medicines to treat HIV/AIDS	No Influence	Little Influence	Some Influence	Strong Influence	Very Strong Influence
4.2 Ensure all staff and their families have access to medicines to treat HIV/AIDS	No Influence	Little Influence	Some Influence	Strong Influence	Very Strong Influence
4.3 Include partners/family in the education, plays/talks and testing interventions	No Influence	Little Influence	Some Influence	Strong Influence	Very Strong Influence
4.4 Offer workplace Cholesterol/Blood-sugar tests at the same time to remove the stigma of HIV testing	No Influence	Little Influence	Some Influence	Strong Influence	Very Strong Influence
4.5 Run the testing at off-site medical centres near work (not on-site)	No Influence	Little Influence	Some Influence	Strong Influence	Very Strong Influence
4.6 Involve local community leaders in the workplace programmes	No Influence	Little Influence	Some Influence	Strong Influence	Very Strong Influence
4.7 Involve traditional healers in the workplace programmes	No Influence	Little Influence	Some Influence	Strong Influence	Very Strong Influence
4.8 Provide more information and education in languages other than English	No Influence	Little Influence	Some Influence	Strong Influence	Very Strong Influence
4.9 Bring the HIV test service back to every month to allow more time for people to chose to get tested.	No Influence	Little Influence	Some Influence	Strong Influence	Very Strong Influence

What else has, or would have, got you to use workplace HIV testing services?

_____
_____
_____
_____
_____
_____

Thank you for completing this questionnaire. Your assistance in helping to Improve workplace VCT is very much valued and appreciated. It is anticipated that your input will make a key contribution to the fight against HIV/AIDS.

Please deposit this completed questionnaire into the ballot at reception where you will be given a voucher that will entitle you to a free lunch at the canteen.

APPENDIX C: VCT SITE EVALUATION QUESTIONNAIRE

VCT Site evaluation Questionnaire: logistic considerations and coverage

1) Services: Which services do you offer?

Pre-test counselling	□
Post-test counselling	□
Ongoing counselling	□
HIV testing	□
➢ Home counselling language	Yes □ No □
➢ Confidential appointment and record keeping	Yes □ No □
➢ Disguised test/test room not associated with VCT	Yes □ No □
➢ Rapid test with ELISA confirmation	Yes □ No □
➢ VCT co-ordinated with pre-intervention initiatives	Yes □ No □
➢ Extend VCT over time	Yes □ No □
HIV diagnostic counselling (without testing)	Yes □ No □

2) If pre- and post-test counselling are undertaken, do carefully defined procedures exist? Yes □ No □

3) Please describe these e.g. do written policies, checklists, data management systems etc. exist.

_____

_____

4) Please describe the VCT services in detail

_____

_____

5) Is VCT promoted as part of HIV prevention and care services?

YES In preparation NO

6) How often is HIV testing perfomed?

---

7) Where do you carry out HIV test?

On-site □

Elsewhere □

If elsewhere, please expand

_____

_____

_____

8) Are related services available for people living with HIV or AIDS?

Ongoing medical care	Yes□	In preparation□	No□
Ongoing social support	Yes□	In preparation□	No□
Support group for PLWHA	Yes□	In preparation□	No□
Ongoing counselling support	Yes□	In preparation□	No□
Family planning	Yes□	In preparation□	No□
ARV Interventions	Yes□	In preparation□	No□
Other preventive therapies	Yes□	In preparation□	No□

9) Please describe your baseline KAP survey, study and strategy

_____

_____

_____

10) Please describe your VCT pre-intervention strategies

_____

_____

_____