

UNIVERSITY OF KWAZULU-NATAL

The Impact of HIV/AIDS on eThekweni Businesses

By

Christian Sibusiso Shongwe

208515910

**A dissertation submitted in partial fulfillment of the requirements for the
degree of**

Master of Business Administration

Graduate School of Business & Leadership

College of Law and Management Studies

Supervisor: Alec Bozas

2013

DECLARATION

Ideclare that

- (i) The research reported in this dissertation/thesis, except where otherwise indicated, is my original research.
- (ii) This dissertation/thesis has not been submitted for any degree or examination at any other university.
- (iii) This dissertation/thesis does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
- (iv) This dissertation/thesis does not contain other persons' writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then:
 - a) their words have been re-written but the general information attributed to them has been referenced:
 - b) where their exact words have been used, their writing has been placed inside quotation marks, and referenced.
- (v) This dissertation/thesis does not contain text, graphics or tables copied and pasted from the Internet, unless specifically acknowledged, and the source being detailed in the dissertation/thesis and in the References sections.

Signature:

DEDICATION

I dedicate this thesis to my mother Mrs Hilda Khoza (late) who I feel was my guardian angel through my journey in this harsh world and my late twin brother Christopher Siyabonga Khoza (Shongwe).

ACKNOWLEDGEMENTS

I wish to express my sincere appreciation and gratitude to the following individuals, without whose assistance, this study would not have been possible:

- My family especially my children Thando, Zamokuhle, Nhlanhla and Amahle for being around with me when I was going through hardships in my life. They never stopped loving me as their father nor had they stopped seeing the value of my presence in their lives when my life took a dive during the times when I was unemployed and lost their home.
- My friend and brother, Ntokozo Dlamini and his family, who truly stood by me through all my difficulties and provided spiritual support.
- My newly found family the Shongwe's, oMtimande (from my father's side) and the Mkhize's, oGcwabe (from my mother's side), and most especially the Khoza family (oMkhathini) who looked after me from the time I was brought into this world until I became a man.
- I would like to thank my supervisor Mr. Alec Bozas whom I call the genius for being so inspirational and motivating during the time when I was compiling this study. He made me even more confident in my academic career and I hope he will still be there when I embark on my aspired PhD or DBA degree.
- Lastly but not least, I would like to thank my dear mother, Mrs Hilda Khoza (late) who I feel was my guardian angel through my journey in this harsh world and my late twin brother Christopher Siyabonga Khoza (Shongwe).
- Finally I thank my heavenly Father, the God almighty for bringing me thus far. Thank you O' Lord.

ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ALAFA	Apparel Lesotho Alliance to Fight AIDS
ARV	Antiretroviral
BUSA	Business Unity South Africa
CEO	Chief Executive Officer
CI	Confidence Index
CMH	Commission on Macroeconomics and Health
COO	Chief Operations Officer
CTC	Close-To-Client
DCCI	Durban Chamber of Commerce & Industry
Etc	Et cetera
GDP	Gross Domestic Product
GNP	Gross National Product
GSB&L	Graduate School of Business & Leadership
HIV	Human Immunodeficiency Virus
IDASA	Institute for a Democratic Alternative in South Africa
ILO	International Labour Organisation
MBA	Master of Business Administration
MDG	Millennium Development Goals
MNC	Multinational Companies
NEPAD	New Partnership for Africa's Development
NGO	Non-Governmental Organisation
PMTCT	Prevention of Mother-To-Child Transmission
RSA	Republic of South Africa
TB	Tuberculosis
UKZN	University of KwaZulu-Natal
UNAIDS	Joint United Nations Programme on HIV and AIDS
VCT	Voluntary Counselling and Treatment
WHO	World Health Organisation
WHP	Workplace Health Programmes

ABSTRACT

The emergence of HIV/AIDS as an epidemic has affected many aspects of life. The livelihoods of individuals, their families, friends, and their means of survival and betterment of life such as relationships, work, and wealth has been affected. The HIV/AIDS epidemic has affected first world countries as well as third world countries, globally. However, the main aim of the study has been to identify the impact of HIV/AIDS on eThekweni businesses. eThekweni was the main focus of the study because eThekweni is the economic hub of KwaZulu-Natal.

The Impact of HIV/AIDS on eThekweni Businesses is a quantitative study which used a questionnaire to solicit responses from managers of profit-making organisations. The study intended to reveal the extent of the impact of HIV/AIDS on the profitability of the organisations and the costs incurred by employers in trying to deal with the disease.

The study managed to reveal challenges faced by employers as well employees in an organisation. Employees were faced with the fear of victimisation based on their HIV/AIDS status. The fear of being dismissed and discriminated against because of their HIV/AIDS status forced employees not to disclose their HIV/AIDS status to employees. Employers were equally affected by high rate of absenteeism and deaths and the decline in productivity caused by HIV/AIDS illnesses. The challenges of high absenteeism and deaths led employers to come up with different strategies such as automation in order to increase productivity and at the same time reduce dependency on the labour force. However, knowledge of workplace HIV/AIDS policies was found to be lacking on the part of some of the employers.

Recommendation on the findings will assist organisations to deal with HIV/AIDS in a manner that improves an organisation's operational efficiencies and at the same time be aware of the employees needs in dealing with the effects of HIV/AIDS, so that organisation's bottom line is improved and both employers and employees come out as winners in the end.

TABLE OF CONTENTS

CHAPTER ONE

Introduction to the Research	1
1.1 Introduction	1
1.2 Motivation for the Study	2
1.3 Significance of the Study	3
1.4 Focus of the Study	4
1.5 Problem Statement	4
1.6 Research Questions	5
1.7 Aim and Objectives	5
1.8 Limitations of the Study	6
1.9 Structure of the Study	8
1.10 Summary	9

CHAPTER TWO

Literature Review	10
2.1 Introduction	10
2.2 The Economic Impact of HIV/AIDS	12
2.3 Impact of HIV/AIDS on Labour	17
2.4 Impact of HIV/AIDS on Households	20
2.5 Impact of HIV/AIDS on Children	21
2.6 Workplace HIV/AIDS Policies	22
2.7 The Impact of HIV/AIDS Stigma on Employees	23
2.8 The Benefits of Early HIV/AIDS Prevention and Treatment	25
2.9 HIV/AIDS Mortality and Labour Supply	26
2.10 The Cost Implications of HIV/AIDS on Organisations	28
2.11 Macroeconomics and Health	29
2.12 Summary	34

CHAPTER THREE

Research Methodology	35
3.1 Introduction	35
3.2 Aim and Objectives of the Study	35
3.3 Research Design and Methods	36
3.4 Validity and Reliability of the Study	37
3.5 Questionnaire Construction	38
3.6 Pilot Study.....	39
3.7 Population and Sampling	40
3.8 Administration of the Questionnaire	41
3.9 Data Collection Strategies	42
3.10 Ethical Considerations.....	42
3.11 Permission to Conduct the Study	42
3.12 Principles of Research Ethics	43
3.13 Research Limitations/Challenges	44
3.14 Data Segmentation and Analysis	45
3.15 Summary	45

CHAPTER FOUR

Presentation of Results.....	46
4.1 Introduction	46
4.2 Findings.....	46
4.3 Summary.....	61

CHAPTER FIVE

Discussion of the Findings	62
5.1 Introduction	62
5.2 Evaluation of Data Presented	62
5.3 Summary.....	81

CHAPTER SIX

Conclusions and Recommendations	82
6.1 Introduction	82
6.2 Findings.....	82
6.3 Implications of this Research.....	86
6.4 Suggestions for Further Research.....	86
6.5 General Recommendations	87
6.6 Summary.....	88

BIBLIOGRAPHY	90
--------------------	----

APPENDICES.....	114
APPENDIX 1 Ethical Approval	114
APPENDIX 2 Informed Consent Letter 3C.....	115
APPENDIX 3 Interview Schedule 3B	117
APPENDIX 4 Questionnaire	118
APPENDIX 5 Trend Report	123

LIST OF FIGURES

No.	Description	Page
2.1	HIV Prevalence trends among antenatal women by age group, South Africa, 2009-2011.....	33
4.1	Number of employees currently employed in the organisations.....	47
4.2	Awareness of employers about employees who are HIV/AIDS-infected in their organisations in the last 12 months.....	48
4.3	Number of employees diagnosed with HIV/AIDS in the last 12 months.....	49
4.4	Number of HIV/AIDS employees on Antiretroviral treatment.....	50
4.5	Number of employees who have died due to HIV/AIDS-related illnesses in the last 12 months.....	51
4.6	Number of employees who had been recruited to replace the ones that have died due to HIV/AIDS-related illnesses in the last 12 months.....	52
4.7	Estimated cost of recruiting new employees.....	53
4.8	Estimated cost of training new employees.....	54
4.9	Buying machinery or automation reduces dependency on labour force and increases the organisation's profit margins.....	55
4.10	Estimated cost of machinery or automation in the last 12 months.....	56
4.11	HIV/AIDS-related illnesses have/had a negative impact on the organisation's productivity.....	57
4.12	Average man days lost in the last 12 months due to HIV/AIDS infections.....	58
4.13	Sick leave pay by organisations as a result of absenteeism due to HIV/AIDS-related illnesses in the last 12 months.....	59
4.14	Number of HIV/AIDS-infected employees who had been laid-off in the last 12 months.....	60
4.15	Cost of HIV/AIDS-infected employee lay-offs in the last 12 months....	60

LIST OF TABLES

No.	Description	Page
2.1	Households by monthly income category per municipality.....	11
2.2	HIV Prevalence (%) by province 2002-2008.....	12
2.3	HIV and AIDS allocations in Vote 16: Health (Programme 2: Strategic Health Programmes).....	13
2.4	HIV Prevalence among antenatal women by province 2009-2011.....	32
5.1	Number of HIV/AIDS employees on ARV treatment.....	64
5.2	Number of employees who have died due to HIV/AIDS	66
5.3	The estimated costs of recruiting new employees	70
5.4	The estimated costs of training new employees	71
5.5	The estimated costs of machinery or automation	72
5.6	Man days lost due to HIV/AIDS infections	78
5.7	The negative impact of HIV/AIDS-related illnesses on productivity	80

CHAPTER ONE

Introduction to the Research

1.1 Introduction

HIV/AIDS has been identified as one of the diseases that had challenged mankind as well as organisations globally, for a decade (Omer & Mariam, 2008). HIV/AIDS had impacted negatively on families, governments and the private sector. HIV/AIDS has devoured skills and eroded developed and under-developed economies. In this study, the importance of finding out the HIV/AIDS status of employees was identified as an issue worth researching. Challenges were identified which prevented employers from establishing the HIV/AIDS status of their employees. On the other hand, challenges faced by employees were equally identified and mostly amounted to fear of stigmatisation and dismissal. Employers lack of knowledge or failure to implement workplace HIV/AIDS policies or despondency on their behalf was revealed through their responses to the question on their awareness of the presence of HIV positive employees in their organisations.

The advantages and benefits of enrolling HIV positive employees on ARV therapy were observed. HIV/AIDS-related deaths caused most of the affected organisations to recruit and train new employees and some of the organisations resorted to automating their processes in order to reduce dependency on the labour force (Parasuraman & Wickens, 2008). The recruitment, training and automation strategies escalated operational costs in organisations and impacted negatively on the bottom line of businesses. The additional costs of sick leave and costs of lay-offs, including man days lost in productivity of the organisation impacted negatively on businesses and the economy of eThekweni and that of the KwaZulu-Natal province.

1.2 Motivation for the Study

eThekwini is the economic hub of KwaZulu-Natal (eThekwini Municipality, 2011). eThekwini has a cosmopolitan population of over 3 442 361 which comprises 992 560 employed and 430 318 unemployed people between the ages 15 to 64, with an employment rate of 30.24%. eThekwini's greatest population concentrations occur in the central and north regions. The central region, which is the Urban Core of the municipality and is home to approximately 1.30 million people (34%), followed by the northern region which is home to approximately 1.15 million people (31%). The south is home to approximately 730 000 people (18%) and the outer west region accommodates approximately 577 500 (16.5%). The high HIV/AIDS prevalence in KwaZulu-Natal of 25% raises concerns when it comes to the number of the labour force that might be affected by HIV/AIDS (National Department of Health, 2011).

HIV/AIDS is known to have an impact on businesses. The International HIV & AIDS Charity (n.d.) states that HIV/AIDS "damages businesses by squeezing productivity, adding costs, diverting productive resources and depleting skills" (International HIV & AIDS Charity, n.d.). When HIV positive employees become too sick to work, either due to the HIV virus alone or ARV drug side effects, there is an increase in absenteeism which affects productivity (Yap & Ineson, 2009; "Antiretroviral Drug Side Effects," n.d.). On the other hand productivity is affected by the phenomenon called presenteeism.

Presenteeism is caused by sub-par productivity which is caused by employees who present themselves at work when they are not fit to be at work, either because he/she is not well or the employee is worried about their relative who is sick at home (Cancelliere, Cassidy, Ammendolia & Côté, 2011). The phenomenon of presenteeism results in the increase of healthcare costs and funeral benefits.

The pension fund commitments of the company increases as people are taking early retirement or deaths increases. Added costs to the company may also arise when the company hires full-time or temporary workers in order to replace those employees who are absent from work due to HIV/AIDS (Ayiro, 2010). The loss of experienced and skilled employees means that new recruits have to be trained.

Productivity is reduced during the training of new recruits (Blatter, Mühlemann & Schenker, 2009). The reduction in productivity, together with other added costs to the organisation such as the costs of lay-offs, sick leave pay and the cost of automation impact negatively on the bottom line of organisations.

The study intends to look at the HIV/AIDS' impact on eThekweni Businesses. The study has anticipated that the results would assist the businesses in the eThekweni municipality and the whole of KwaZulu-Natal, to implement HIV/AIDS policies in the workplace. This would ensure that HIV/AIDS infected employees are identified early, referred for assessment and treatment, so that they remain productive and the loss of the workforce is minimised, thus improving the eThekweni's economy. Other stakeholders who stand to benefit from this study are the Labour Unions, CEO's of businesses, business associations such as Business Unity South Africa (BUSA) and Durban Chamber of Commerce and Industry (DCCI) as well as government departments and non-governmental organisations (NGO's).

1.3 Significance of the Study

- The research provides a comprehensive review of the impact of HIV/AIDS on eThekweni businesses and on the economy of KwaZulu-Natal.
- Highlights the importance of implementing HIV/AIDS workplace policies.
- Emphasises the removal of impediments to anti-retroviral treatment, such as HIV/AIDS stigma.

1.4 Focus of the Study

The study aims to look at the impact of HIV/AIDS on eThekweni Businesses; such as the decrease in the labour force in the industry due to HIV/AIDS-related deaths, the costs to industries caused by absenteeism due to HIV/AIDS-related sicknesses and the cost of recruiting and training, investment in machinery or automation in order to reduce dependence on the labour force and the advantages of implementing workplace HIV/AIDS policies.

1.5 Problem Statement

This study was designed to investigate the question of whether HIV/AIDS has an impact on eThekweni businesses by using quantitative research methods to explore the impact of HIV/AIDS on eThekweni Businesses.

UNAIDS has estimated that by 2010, the per capita GDP may be lowered by 8% in countries hardest hit by HIV/AIDS, such as South Africa. According to the World Economic Forum, the HIV epidemic has social and economic impacts for most communities and business (World Bank, n.d.). The situation is getting worse and the World Bank has indicated that “in parts of Africa, if effective action is not taken to combat the spread of the epidemic, HIV/AIDS could result in economic collapse” (World Bank, n.d.).

According to the Durban Chamber of Commerce & Industries (DCCI), eThekweni is the economic hub of KwaZulu-Natal (Durban Chamber of Commerce & Industry, n.d.). The Durban Chamber of Commerce and Industry estimated that over half of the KwaZulu-Natal province’s output, employment and income, which accounts for 14% of household income, 15% of national output and 11% of national employment, are contributed by the eThekweni region (Durban Chamber of Commerce & Industry, n.d.).

The Durban Chamber of Commerce and Industry also estimated that 7% of the 30 million employees in the country and 6% of South African labour forces of 16 million participants live in the eThekweni Municipality (Durban Chamber of Commerce & Industry, n.d.). This will therefore mean that the loss of the labour force in the eThekweni region could lead to the decline of its economy which will affect the KwaZulu-Natal's output if the impact of HIV/AIDS is not taken seriously.

1.6 Research Questions

This study attempted to answer the following questions about the eThekweni businesses.

- What is the estimated number of HIV/AIDS-related deaths in organisations?
- What are probably, the financial implications of HIV/AIDS-related deaths in the organisations?
- How does absenteeism caused by HIV/AIDS-related illnesses affect productivity in the organisations?

1.7 Aim and Objectives

The aim of this study was to establish the financial impact of HIV/AIDS on eThekweni businesses and its economy. The objectives of this study are:

- To establish the number of HIV/AIDS-related deaths in a sample of the eThekweni businesses.
- To establish additional costs to companies caused by HIV/AIDS-related deaths and treatment for HIV/AIDS disease.
- To quantitatively establish the loss of productivity due to absenteeism caused by HIV/AIDS-related matters.

In order to establish the number of HIV/AIDS-related deaths in the organisations, employers were expected to estimate the number of employees who have been diagnosed with HIV/AIDS. The question on the number of HIV-positive employees who were on ARV treatment wanted to establish if organisations had workplace HIV/AIDS policies which guided them about ARV roll-out. Evidence of ARV roll-out was sufficient evidence that organisations were aware or knew how to implement workplace HIV/AIDS policies. Through monitoring of employees on ARV treatment, employers were expected to know how many employees had responded positively on ARV treatment and became better and productive and how many failed to respond positively to ARV treatment and died.

The additional cost to companies caused by HIV/AIDS-related deaths and ARV roll-out was obtained by establishing the number of employees who were recruited and trained. The newly recruited employees replaced the ones that died as a result of HIV/AIDS-related illnesses. The costs of recruitment and training were then estimated from the responses. Other additional costs such as the cost of automation, sick leave pay and the costs of lay-offs were established by the respondent's response to questions 10, 13 and 15.

The loss of productivity due to absenteeism and presenteeism caused by HIV/AIDS-related matters were found firstly by establishing if employers agreed or disagreed to the organisation's automation strategies and to the question regarding the negative impact of HIV/AIDS-related illnesses on the organisation's productivity. The follow up questions which wanted to establish the average man days lost and the number of employees who had been laid off by the organisations wanted to establish the impact of HIV/AIDS on the organisation's productivity through loss of manpower and skills.

1.8 Limitations of the Study

- Since HIV/AIDS is a sensitive topic, some of the respondents might have had difficulty in answering the questionnaire or revealing the impact of HIV/AIDS on their businesses.

- There is possible that some of the organisations could not have had accurate records or knowledge of the extent of HIV/AIDS in their organisations because employees were not required by the law to reveal their HIV status to the employer.
- Due to time constraints and the deadline to complete the study, the majority of the respondents failed to respond on time even after reminders were sent.
- If more time could be allocated to complete the study, a sample population of organisations in the manufacturing sector could be studied by data mining their database in order to establish the exact impact of HIV/AIDS on their businesses. By using data mining techniques instead of questionnaires, it is hoped that the true impact of HIV/AIDS on businesses could be established.
- The online questionnaire was distributed by using the Questionpro® website and the monthly subscription was becoming too expensive as respondents were taking their own time to respond. Another disadvantage of Questionpro® was that data had to be downloaded and exported before the subscription is cancelled, because if that is not done the collected data cannot be accessed for future use except on renewal of the subscription.
- The study focuses on the impact of HIV/AIDS on organisations or businesses in the eThekweni region. The main focus is on the private sector because the public sector, municipalities, parastatals and non-governmental organisations are not profit driven.
- After failed attempts to get access to the Durban Chamber of Commerce business database, the University of KwaZulu-Natal (UKZN) Graduate School of Business & Leadership (GSB&L) was approached and permission was granted to survey the Master of Business Administration (MBA) students through Questionpro®.

1.9 Structure of the Study

Chapter one provides a brief introduction to understanding the impact of HIV/AIDS on organisations in the eThekweni region. The problem, motivation for conducting the study, objectives and the limitations of the study are discussed.

Chapter two details the literature review surrounding the study. This chapter focuses on data from Africa, South Africa and neighbouring countries like Lesotho, as well the global impact of HIV/AIDS on organisations in general.

Chapter three explains the research methodology used and also details the data collection processes.

Chapter four is a presentation of findings obtained from organisations through questionnaires.

Chapter five is a discussion of the findings on the impact of HIV/AIDS on eThekweni businesses.

Chapter six presents the recommendations and conclusions of the study. The impact of HIV/AIDS deaths on organisations, cost implications of HIV/AIDS-related deaths on organisations and the impact of productivity loss caused by absenteeism and presenteeism as a result of HIV/AIDS-related illnesses on organisations is discussed.

The bibliography contains literature that was used in this study. The Harvard referencing style and format has been used in the chapters.

1.10 Summary

This chapter sets the tone for the whole study with the introduction and the research question. The introduction discussed the impact of HIV/AIDS on employees and employers alike. The advantages and benefits of enrolling HIV positive employees on ARV treatment are discussed. The geographical extent of eThekweni's population which comprised both employed and unemployed people between the ages 15 to 64 were mentioned. The focus was on the population of employed individuals and by using the HIV/AIDS prevalence rate of 25%, the impact of HIV/AIDS on the economy was highlighted. The problem statement was formulated and the objectives were clearly defined. An overview of the study has been presented. The following chapter contains a survey of literature that was relevant to this research.

CHAPTER TWO

Literature Review

2.1 Introduction

There are several research studies in respect of the impact of HIV/AIDS on the economy, but this study focused on the impact of HIV/AIDS on eThekweni businesses in the KwaZulu-Natal province in South Africa. The rationale for focusing on eThekweni businesses in this study is because, according to eThekweni Municipality, eThekweni is the “third largest city in South Africa and also the largest city of the KwaZulu-Natal province” based on population size (eThekweni Municipality, 2011). The first largest city in South Africa is Johannesburg and the second largest being Cape Town. In 2011 eThekweni Municipality had a cosmopolitan population of over 3 442 361. In the Census of 2011, Statistics South Africa reported 992 560 employed and 430 318 unemployed people between the ages 15 to 64, with an employment rate of 30.24%. According to eThekweni Municipality, the total households by monthly income category was 956 713 (Table 2.1) and the main economic sectors are “manufacturing; financial & business services; community services; and wholesale and retail” businesses (eThekweni Municipality, 2011).

Reference is made to table 2.1 on the next page which looks at households by monthly income category per municipality. Please note that the length of table 2.1 could not fit on this page and has, therefore been moved to page eleven.

TABLE 2.1: Households by monthly income category per municipality

Statistics South Africa	
Census 2011	
	ETH: eThekweni
No income	163 756
R1 - R400	40 651
R401 - R800	58 936
R801 - R1 600	136 839
R1 601 - R3 200	161 380
R3 201 - R6 400	128 231
R6 401 - R12 800	102 163
R12 801 - R25 600	82 562
R25 601 - R51 200	54 290
R51 201 - R102 400	19 218
R102 401 - R204 800	5 517
R204 801 or more	3 107
Unspecified	62
Total	956 713

Source: www.statssa.gov.za

eThekweni is the second largest provincial economy after Gauteng (Davis, n.d.). According to the KZN Department of Health Strategic Plan 2010-2014 (Dhlomo, 2010), the HIV prevalence in KZN has increased since 2002 from 11.7% to 15.8% in 2008 (4.1% increase) compared with the national prevalence of 10.9% in 2008 (Table 2.2). Since KwaZulu-Natal has the highest incidence of HIV/AIDS in South Africa, the decrease in the labour force as a result of HIV/AIDS deaths would, therefore impact on the eThekweni economy (Dhlomo, 2010). This chapter is going to look at how HIV/AIDS impact on the economy, its impact on government resources and businesses the implications of failing to implement HIV/AIDS policies in the workplace.

TABLE 2.2: HIV prevalence (%) by province 2002-2008

Province	2002	2005	2008
KwaZulu-Natal	11.7	16.5	15.8
Mpumalanga	14.1	15.2	15.4
Free State	14.9	12.6	12.6
North West	10.3	10.9	11.3
Gauteng	14.7	10.8	10.3
Eastern Cape	6.6	8.9	9
Limpopo	9.8	8	8.8
Northern Cape	8.4	5.4	5.9
Western Cape	10.7	1.9	3.8
National	11.4	10.8	10.9

Source: www.avert.org/safricastats.htm

2.2 The Economic Impact of HIV/AIDS

HIV/AIDS has an impact on economic growth of many developing countries (Omer & Mariam, 2008). HIV/AIDS has both indirect and direct costs on national economies, which is caused by the cost of treating HIV/AIDS-infected individuals. The cost of HIV/AIDS varies and causes per capita gross national product (GNP) in a number of countries to be exceeded. This has caused a substantial portion of the government budgets to be reallocated to the health departments, thus sacrificing education and other resources. In the IDASA Budget Brief No. 152 (Ndlovu, 2005), Ndlovu said “Government’s response to HIV and AIDS in South Africa continues to receive special attention in the financial resource allocation from the national budgets”. The brief also states “that National Treasury has allocated the budget to three social sector departments, i.e. health, education and social development”. Table 2.3 below shows the budget allocation on the health sector department only.

Table 2.3: HIV and AIDS allocations in Vote 16: Health (Programme 2: Strategic Health Programmes)

R' 000	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8
Total health HIV/AIDS Sub-programme, includes conditional grant, national department's allocation and transfers ton on-profit institutions	454,588	686,230	1,235,329	1,531,165	2,001,920	2,107,717
HIV/AIDS health conditional grants	210,209	333,556	781,612	1,135,108	1,567,214	1,645,575
HIV/AIDS NGOs	31,331	43,378	40,250	49,745	52,730	55,367
Tuberculosis NGOs	2,500	1,368	2,800	2,968	3,146	3,303
South Africa AIDS Vaccine Initiative	5,000	10,000	10,000	10,000	10,600	11,130
Lifeline		11,000	12,000	15,000	15,900	16,695
Love Life	25,000	25,000	23,000	23,000	23,000	23,000

Source: National Treasury Estimates of National Expenditure 2005, pages 346 – 347

The table above reveals the gradual increase in the allocation of the budget to the healthcare sector from 2002 to 2008. For the government to be able to sustain this increase in budget allocations for the healthcare sector, government must have a large tax base. But the prospect of having a large tax base quickly diminishes as a large number of the productive labour force is eroded by

HIV/AIDS deaths (International HIV & AIDS Charity, n.d.). These are individuals who would have contributed to the economy by paying taxes. This sad state of affairs is also compounded by the increase in unemployment, indirectly caused by morbidity as a result of HIV/AIDS and also caused by lay-offs as businesses cannot cope with the decline in productivity and profits (Todd & Nordstrom, 2012).

The International HIV & AIDS Charity (n.d.) states that HIV/AIDS “damages businesses by squeezing productivity, adding costs, diverting productive resources and depleting skills” (International HIV & AIDS Charity, n.d.). When HIV positive employees become too sick to work, either due to the HIV virus alone or ARV drug side effects, there is an increase in absenteeism which affects productivity (Yap & Ineson, 2009; 'Antiretroviral Drug Side Effects,' n.d.).

The phenomenon of presenteeism results in the increase of healthcare costs, funeral benefits and pension fund commitments of the company and as people are taking early retirement or deaths increases, these costs also increases. Added costs to the company may also arise when the company hires full-time or temporary workers in order to replace those employees who are absent from work due to HIV/AIDS (Ayiro, 2010). The loss of experienced and skilled employees means that new recruits have to be trained.

Some studies have managed to prove that training does have an impact on productivity (Palo, 2009). It is said that, in order to achieve future competitive advantage, remain competitive in the market and also meet their organisational goals, companies need to decide which future competencies will be needed (Palo, 2009). According to Pollitt (2010), training does not only improve productivity, but in a manufacturing environment, product quality and employee morale is also improved.

There are, however, increases in training costs associated with recruiting and training new employees in order to maintain optimal productivity which was affected by absenteeism of HIV/AIDS-infected individuals (Dixon, McDonald & Roberts, 2010; Blatter, Mühlemann & Schenker, 2009). However, some cost-effective methods of reducing recruitment costs such as E-Recruitment methods can be used to reduce recruitment costs (Agarwal, 2013).

The death of HIV/AIDS employees affects the accumulation of human capital and accumulated savings of governments as a result of the reduction in the tax base (Dixon *et al.*, 2010). These savings or earnings, which could have gone to investments for growing the economy, are lost. The increase in the number of HIV/AIDS individuals cause a shift in governments resources from productive investments to health sector expenditures and healthcare, which lowers investment in education and primary healthcare, with consequences for the future economic growth (Ndlovu & Daswa, 2008). As economic growth is reduced because of AIDS, investment in agricultural research, education, health (to deal with diseases other than AIDS), water and sanitation, is likely to fall.

According Lovász & Schipp (2009), the epidemic may now be getting into a stage where deaths due to HIV/AIDS is beginning to impact on both economic and social aspects of life and this is shown by the “impact of HIV/AIDS prevalence on health capital/infant mortality, and hence on incomes”. The World Economic Forum’s regional report on *Business and HIV/AIDS in Africa* (World Economic Forum, n.d.), warns that “if effective action is not taken to combat the spread of the epidemic, HIV/AIDS could result in economic collapse”. The World Economic Forum (n.d) also estimates that “the annual per capita growth in half of the countries of sub-Saharan Africa is falling by 0.5-1.2% as a direct result of AIDS” and UNAIDS estimates a further decline in per capita GDP.

According to The Times Newspaper, published on May 26 2009, South Africa is said to be in recession. In contrast, Professor Alan Whiteside of the University of KwaZulu-Natal says that “South Africa has the worst epidemic”. By looking at these statements, one can argue that KwaZulu-Natal would be hardest hit by the HIV/AIDS epidemic during the recession period even more because, according to Statistics South Africa, “KwaZulu-Natal still has the highest HIV prevalence” which is 15.8% (2008). KwaZulu-Natal, also has an unemployment rate of 22.5% (2012) (Statistics South Africa, 2012; Statistics South Africa, 2011). Since 7% of the 30 million employees in the country and 6% of South Africa’s labour forces of 16 million people live in the eThekweni Municipality, HIV/AIDS would have an impact on the eThekweni businesses and the economy of KwaZulu-Natal as a whole.

HIV/AIDS destroys human capital and affects productivity thus raising the costs of doing business. This forces organisations to automate their systems, which comes at a hefty price (Hansen, 2010; Parker-Bates & Hill, 2010). In order to reduce cost, improve accuracy and efficiency, automation has been found to be an alternative in reducing the cost of human capital (Parasuraman & Wickens, 2008; Bloss, 2013; Bloss, 2012; Lee & Seppelt, 2009; Levy, 2010; Billingsley, 2009). According to BU Digital Common (2010), “HIV/AIDS can represent a ‘tax’ of between 4 to 12% on the wage bill of companies in the worst-affected areas”, like KwaZulu-Natal and some South African firms have reported that their healthcare costs have increased by as much as 500% in the past five years (BU Digital Common, 2010).

2.3 Impact of HIV/AIDS on Labour

AIDS cripples the economy by striking adults to death in their most productive years. According to Hansen (2010), the disease “kills people in the prime of their working lives and it robs shop floors and government agencies of their most important assets” (Hansen, 2010). The HIV epidemic erodes productivity by destroying human capital thus increasing the cost of doing business. Some of these 20 to 40 year-olds are parents and their death leads to the increase in the number of orphans (Hansen, 2010). These orphans had to be looked after by the government’s child support grants. Additional funding for such grants has to be raised from taxes in order for the programme to be sustainable (South African Revenue Service, 2011).

This further reduces earnings and savings of individuals, which has a direct impact on investment and the economy. HIV/AIDS has been identified to spread the fastest among people with above-average education and skills and as a result skills are eroded, thus further sharpening the economic impact.

The large number of workers come to work even though they are not fit to perform their duties because they are worried about a member of the family who is ill (Yamamoto, Loerbroks & Terris, 2009). The high risk of injury and spreading of infectious diseases creates presenteeism, whilst the reduction of productivity or output had an impact on the economic price. According to the Work and Family Researchers Network, the term presenteeism refers to “lost productivity that occurs when employees come to work but perform under par due to any kind of illness” (Work and Family Researchers Network, n.d). The loss of productivity and economic output, which results from failure to work, sick days and subpar productivity has a major impact on businesses (Keech & Beardsworth, 2008). Some of these losses are caused by seasonal epidemics such as influenza.

The study by the Partnership for Prevention and the U.S. Chamber of Commerce reveals that presenteeism represented 18 to 60% of the total health-related costs for prevalent health conditions including diabetes, heart disease and hypertension (Partnership for Prevention, 2010). The study also found that poor health status of employees attributed to a 5 to 10% decrease in overall productivity and in the USA the cost to employers amounted to \$225.8 billion annually or \$1,685 per employee per year, on average, due to loss of productivity. Some literature has proved that absenteeism has been reduced and productivity improved by putting HIV-infected employees on anti-retroviral treatment (Bor, 2012). According to Habyarimana, Mbakile & Pop-Eleches (2010), there is a substantial decrease in absenteeism in the first 6-12 months after the initiation of ARV treatment. Habyarimana *et al.*, (2010), also found that absenteeism of 1 to 4 years after the initiation of ARV treatment is low and is similar to employees who were not yet initiated on ARV treatment at the Debswana Diamond Company.

According to Simbiri, Hausman, Wadenya & Lidicker (2010), “the spread and treatment of HIV/AIDS will be affected by people’s access to quality health services and the nature and form of the treatment that they receive” (Simbiri *et al.*,2010). However, access to antiretroviral treatment (ARV) can only be made available if employees voluntarily disclose their HIV status to the employer. There is a correlation between early initiation of ARV on employees and reduction of job-threatening illnesses (Bor, 2012). Bor (2012), reported employment levels of 85% 3-6 years after ARV initiation and concluded that early ARV treatment is beneficial to both the employer and the employee. The benefits of ARV treatment to the firm covered 8-22% of the cost of treatment (Habyarimana *et al.*, 2010).

Stigmatisation of HIV-infected people is one of the challenges that HIV-infected employees fail to disclose their HIV status (Maughan-Brown, 2010) and since employers are no-longer allowed to do health questionnaires on pre-employment, this has become a challenge in ascertaining the number of HIV-infected employees in organisations (HIV/AIDS & STD Directorate n.d.).

In every business goods and services are sold for more than it costs to produce them in keeping with the corporate sector's objective to make profit. However, internal and external factors caused by HIV/AIDS has an impact on the profitability of a business (Gray, Ferrer & Ortmann, 2009). One of the external factors that are associated with the decrease in demand and rising costs is the volatility in the markets and increasing wage demands (Philip, 2011). Increasing absenteeism, increased pension pay-outs and breakdowns in employee discipline and morale, are one of the internal factors that make firms difficult to manage. These internal factors require responses from firms. Since the cost of producing goods is dependent on the cost of labour, direct materials and utilities, the impact of HIV/AIDS may cause an increase in production costs through the reduction of productivity for a number of reasons (Dixon *et al.*, 2010; Madden, 2009; Cocker, MARVin & Sanderson, 2012; Pfeffer, 2010):

- Absenteeism which translates to more employees failing to go to work due to ill health. The roles of women as caregivers will thus necessitate time off and funeral attendance becomes a major source of lost time. Some employees may go to work although they are not fit to work because they have a fear of losing their jobs. These lead to presenteeism.
- workers whose health has worsened would gradually become less productive and eventually become unable to carry out physical or emotionally demanding jobs.
- replacements for those employees who die or retire on medical grounds may be less skilled and/or experienced. The recruiters may also incur training costs.

- employers may be forced to increase the size of the workforce, with the hope of increasing productivity and hence end up with increased payroll costs to cover for absenteeism.

2.4 Impact of HIV/AIDS on Households

According to Lovász & Schipp (2009), HIV/AIDS epidemic “has a significant negative effect on the growth rate of per capita GDP in Sub-Saharan Africa” (Lovász & Schipp, 2009). This impact would be felt throughout the economy, from the macro-economic level to the micro-economic level, i.e. households. Illness and death of members and citizens has caused households and nations to become poorer (Whiteside, 2010). No matter who is ill in the household, they need care, medicines, treatment and possibly a special diet. These needs add to the financial burden of the household. Finally, when the person succumbs to the disease and dies, the households are drained even further. However, some families have found a way to circumvent the impact of lost labour that arises from the inability of the HIV-infected family member to contribute to the cost of looking after the family.

Other family members may increase labour supply by redistribution of tasks or by cross-substitution effect, in which the person with HIV takes on home production tasks, such as caring of young children, thus freeing other household members to supply market labour in order to counteract the negative income effect (Bor, 2012).

According to Case, Garrib, Menendez & Olgiati (2008), an equivalent of a year’s total expenditure on food and groceries is spent by households in preparation for the funerals. The cost of funerals as a results of HIV/AIDS deaths has an impact on households poverty (Case *et al.*, 2008). Grimm (2010), states that “death poses substantial and lingering burdens from the funerals that surviving household members need to finance the on-going loss of income once brought into the household by the deceased” (Grimm, 2010).

The death of a breadwinner(s) in the home has an impact on the wellbeing of the whole family, especially children who end up being orphaned (McGarry & Shackleton, 2009). As more and more children are orphaned, this puts pressure on the government to increase child support grants (Bachelet, 2011). The increase in child-headed families which is caused by death of both parents leads to a proportional decrease of adults in the population (Foster, Makufa, Drew & Kralovec, 2011). The decrease in the number of adults in the population is accompanied by the reduction of incomes in the affected households.

2.5 Impact of HIV/AIDS on Children

A number of studies have shown that HIV/AIDS has an impact on the economy through the loss of income as a result of death of a breadwinner in the household (Munthree & Maharaj, 2010). The death of a breadwinner in the household increases the level of poverty. The reductions of income in the household affect children in several ways; they encounter problems in financing their education and therefore are forced to leave school and look for jobs in order to look after their siblings or care for members of the family who are sick as a result of HIV/AIDS (Cluver, Operario, Lane & Kganakga, 2011).

The death of both parents may force these children to look after their siblings. As previously discussed, the majority of these children are girls and this has led to the birth of a new type of families called female-headed families (Mogotlane, Chauke, van Rensburg, Human & Kganakga, 2010). Faced with financial challenges, female-headed families resort to dangerous activities such as prostitution in order to generate income (Average, Maxwell & Takupiwa, 2008). There has been reports that sex-workers accepted more money for unsafe sex (Adriaenssens & Hendrickx, 2012). The prospects of making more money by indulging in unprotected sex become very tempting for young girls who are desperately in need of money in order to look after themselves, feed their siblings and their families.

2.6 Workplace HIV/AIDS Policies

The Global Business Coalition on HIV/AIDS, Tuberculosis and Malaria (Global Business Coalition on HIV/AIDS, n.d.), defines HIV/AIDS workplace policy as a policy that “provides the basic framework for company action to reduce the spread of HIV/AIDS and to manage its impacts”. The International Labour Organisation (ILO) and World Health Organisation (WHO) jointly developed “policy guidelines for improving health workers’ access to HIV and TB prevention, treatment, care and support services” (Kisting, Wilburn, Protsiv & Hsu, 2010).

Workplace HIV/AIDS programme’s aim is to increase and improve wellness amongst employees in organisations through education and treatment of the disease (Hirbod & Lindqvist, 2011). However, factors such as management, leadership, motivation and stigma could inhibit or prevent the workplace wellness programmes from achieving its intended goal (Hirbod & Lindqvist, 2011). Yap & Ineson (2010), revealed that management must have an acceptable level of knowledge regarding the effects of HIV on individuals and societies. The study also revealed that, although management understood the nature of HIV infections, the extent and its general effects; the implications or impact of HIV/AIDS in the workplace was weakly understood in the Asian hospitality industry (Yap & Ineson, 2010).

Whilst some managers recognised the importance of HIV/AIDS workplace policies, some do not perceive HIV/AIDS as a serious problem (Virakul & McLean, 2010). Virakul & McLean (2010), stated that from a commercial perspective, the issue of HIV/AIDS has serious consequences for businesses “in terms of employee relations, welfare policy and workplace education and training” (Virakul & McLean, 2010). However, there is a view in Thailand that providing a range of services such as stress management clinics and paternity schemes to private healthcare cover for employee welfare, is the key priority for organisations.

Although the view of investing in HIV/AIDS programmes has shown a 15% reduction in HIV infections, such improvements has caused tension for organisations in deciding whether to invest in healthcare for the benefit of individuals or for the benefit of the business (Lamb-White, 2012).

2.7 The Impact of HIV/AIDS Stigma on Employees

The severity of HIV/AIDS stigma has caused HIV/AIDS sufferers to die in silence because of the fear of stigmatisation and HIV discrimination (Neuman & Obermeyer, 2013). Stigma is defined “as an attribute that links a person to undesirable characteristics” (Monjok, Smesny, Essien & James, 2009). Others describe stigma as the condition where a person, from whatever nation is incapable of harmonising with the standards that society calls normal (Hirbod & Lindqvist, 2011). In this way, stigmatised individuals get excluded from full social approval. Monjok *et al.*, (2009), defines discrimination as “an aspect of stigma which is a form of exclusion or restriction of expression, marginalisation, or prevention from access to something or services”. Discrimination “is normally expressed by force, from avoidance of life threats, lynching and death” (Monjok *et al.*, 2009).

According to Wilson (2012), 48.8% of the population and 65% of business managers surveyed believed that HIV/AIDS carriers should not have equal employment rights (Wilson, 2012). Because of HIV stigma, some employers even go to such an extent as to dismiss their employees because they are HIV-positive (Allard, 2010).

In a study done in South Africa in KwaZulu-Natal by Zeelen, Wijbenga, Vintges & Jong (2010), the stigma attached to HIV/AIDS is broken by storytelling, and at the same time, storytelling provides people with effective messages about the disease. Zeelen *et al.*, (2010) found that, in order to “suit the local context better than nationwide health educational programmes which are normally disseminated through mass education”, the persistent approach around storytelling is vital in South Africa, especially in rural areas. Encouraging employees to reveal their HIV/AIDS status freely needs the use of diversity management theory (Yap & Ineson, 2012).

Diversity management can be defined “as complex systematic and planned strategies and commitment that encourages employers, employees and customers in the workplace to tolerate, respect and treat fairly others of diverse characteristics”, such as HIV positive employees (Yap & Ineson, 2012).

According to Zuch & Lurie (2011), there are many ways to reduce HIV stigma. ARV reduces stigma through normalisation of the disease by weakening HIV/AIDS link with disfigurement and death (Zuch & Lurie, 2011). Maughan-Brown (2010) identified three types of HIV stigma. These are (1) social stigma, (2) symbolic stigma and (3) instrumental stigma (Maughan-Brown, 2010). Winskell, Hill & Obyerodhyambo (2011), defines symbolic stigma as stigma that “arises from moralistic value judgements attached to people living with HIV and has negative consequences from both public health and human rights perspectives” (Winskell, Hill & Obyerodhyambo, 2011).

Social stigma arises as a result of discrimination of HIV-positive individuals by those who perceive their HIV status to be negative (Galindo, 2013). HIV positive individuals do not only experience discrimination in their communities, but also experience discrimination in the workplace (Surgevil & Akyol, 2011). Instrumental stigma manifests itself through avoidance of HIV/AIDS infected persons by HIV/AIDS uninfected individuals who fear that they would get infected if they touch HIV/AIDS infected persons (Nhamo, 2011). The whole issue of instrumental stigma is surrounded by absurdity, in that HIV/AIDS

uninfected individuals who ascribe to instrumental stigma, have a strong belief that, for an example, drinking from the same bottle of water as an HIV/AIDS infected person, would lead to contraction of HIV/AIDS (Maughan-Brown, 2010).

The implications of HIV-related stigma, is that it causes new infections through delays in testing and poor treatment adherence (Goudge, Ngoma, Manderson & Schneida, 2009; Neuman & Obermeyer 2013; Maughan-Brown, 2010). Delays in testing are caused by fear or worry to test for HIV because of the unforeseen or anticipated stigma that would be attached on the individual if he/she test HIV positive (Jürgensen, Tuba, Fylkesnes & Blystad, 2012). In order to eliminate HIV stigmatisation and discrimination, the International Labour Organisation (ILO) came out with strong recommendations that rejected discrimination against HIV-positive workers (Brands, 2010).

In Africa, people living in Zambia and Kenya still face barriers to employment, which includes discrimination in hiring, loss of promotion and termination because of their HIV status (Sprague, Simon & Sprague, 2011).

2.8 The Benefits of Early HIV/AIDS Prevention and Treatment

The perceived burden of knowing one's HIV status outweighed the known benefits concerning prevention and early treatment (Jürgensen *et al.*, 2012). According to Makoe, Portillo, Uys, Dlamini, Greeff, Chirwa, Kohi, Naidoo, Mullan, Wantland, Durrheim & Holzemer (2009), studies have revealed that ARV treatment has transformed HIV/AIDS from a fatal disease to a chronic illness and as a result of this, stigma has declined. However, for some, taking ARV medications may indicate that someone is HIV-positive (Makoe *et al.*, 2009). Therefore, for someone who does not wish to disclose his/her HIV status may avoid taking medication, thus leading to the problem of poor treatment and adherence (Bor, 2012; Danel, Gabillard, Inwoley, Chaix, Toni, Moh, Messou, Bissagnene, Salamon, Eholie & Anglaret, 2009; Natsuo, 2010; Peltzer, Friend-du Preez, Ramlagan & Anderson, 2010).

Avoidance of taking ARV treatment causes, with time, ARV resistant HIV strains (Herbst *et al.*, 2009). ARV-resistant HIV strains may cause new HIV infections which are hard to treat with the current treatment regimes, depending on what drug regimen the HIV-infected individual has been exposed to and also cause failure of the immune response to mount a defence mechanism (Kiertiburanakul & Sungkanuparph, 2009; McMichael, Borrow, Tomaras, Goonetilleke & Haynes, 2010). The ICD-10 coding system has been used to code HIV/AIDS disease stages for diagnostic purposes (Council of Medical Schemes, 2007). The knowledge of ICD-10 codes for HIV drug resistance could be beneficial from the clinical point of view during ARV treatment. Therefore, eradication of HIV stigma would play an important role in encouraging people to come forward and test for HIV so that ARV can be started at an early stage if found to be HIV positive and improve prognosis of HIV/AIDS thus reducing the number of HIV/AIDS drug resistance and deaths.

2.9 HIV/AIDS Mortality and Labour Supply

HIV/AIDS is one of the biggest causes of mortality in the workforce in Africa (Pennap, Chaanda & Ezirike, 2011). According to Pennap *et al.*, (2011), by 2015 the labour force supply would become 30-40% smaller in countries with very high prevalence like South Africa, following 12% of mortality in the workforce. This is expected to affect productivity on income in the economy. Lovász & Schipp (2009), noted that “if labour supply falls annually by 30,000 workers, economic growth is reduced by 50% and investments reduced by 75%” (Lovász & Schipp, 2009). In comparison to a scenario without HIV/AIDS, studies by Lovász & Schipp (2009), have shown that South Africa’s “annual *per capita* income will be reduced by 8% and *per capita* consumption by 12%” until 2010. It is probably that the decline of the gross domestic product (GDP) over the past 10-20 years is caused by the impact of HIV/AIDS on the workforce (the DTI & Deloitte, 2012).

Development of HIV/AIDS Workplace policies would ensure the protection of the workforce against impacts of HIV/AIDS and deaths. Such a move would be paramount to improving South Africa's economy and therefore, improving GDP growth (Thurlow, Gow & George, 2009; Smith & Project Empower, 2010). Before the implementation of workplace policies, the important question to ask is "are workplace health promotion programmes effective?" According to Cancelliere *et al.*, (2011), there is positive effect that workplace health programmes (WHP) are effective.

Workplace health programmes offered organisational leadership, health risk screening, individually tailored progress and a supportive workplace culture. Factors such as overweight, a poor diet, a lack of exercise, high stress and poor relations with co-workers and management were identified as potential risk factors that contribute to presenteeism (Cancelliere *et al.*, 2011; Mitchell, Eden, Cramp, Jayewardene, King & St George, 2012).

Success of HIV/AIDS workplace policies depend on the willingness and the buy-in of employees in embracing the policy and the involvement of government, business and labour (Soko, Umar, Noniwa & Lakudzala, 2012; Rogers, Adetoro, Burke, Llado & Lukyanova, 2010).

There is a concern however; that some corporate responses to implementing HIV/AIDS policies in the workplace or to heed vocal warnings about the impact of HIV/AIDS on the workforce had been slow, partial, erratic and noncommittal (Michinobu, 2009). Bakuwa (2010), revealed evidence that the majority of companies around the world have not yet responded to the issue of HIV/AIDS in the workplace (Bakuwa, 2010). Wyk (2012), noted that "transformation of HIV/AIDS from an epidemic to a business threat has been underscored" by the government's tendency to view the HIV epidemic "as part of the public agenda rather than part of its formal agenda" (Wyk, 2012).

2.10 The Cost Implications of HIV/AIDS on Organisations

The costs to business rise disproportionately with the level of HIV infection (Gow, George & Grant, 2012). This can be interpreted as meaning that early diagnosis of HIV infection would ensure that infected employees receive anti-retroviral treatment at an early stage thus preventing or reducing progression to AIDS, which ultimately reduces costs. The benefits of starting treatment at an early stage for HIV infected employees would ensure that employees remain fit and productive at work (Beard, Feeley & Rosen, 2009).

Without proper HIV/AIDS policies, companies would incur increased costs of up to 5.9% of their annual wage and salary costs (World Economic Forum, n.d.). This statement was supported by a study of 1,006 companies in South Africa, which found that 43% of firms predicted an increased level of adverse effects on their business within five years as a result of HIV/AIDS. Decreased productivity and increased absenteeism which had a major impact on current operations were experienced by 39% of respondents.

The survey also revealed that Standard Chartered Bank “first became aware of HIV/AIDS’ impact on its business when it discovered that on any given day in a number of African countries, 10% of staff were absent because of HIV/AIDS-related matters”. In addition to this, The World Economic Forum regional report acknowledges the fact that few companies have fully recognised the impacts of HIV/AIDS on costs, which includes medical aid costs or revenues and that only “12% of companies translate their awareness and understanding of the epidemic into action and have written HIV/AIDS-specific policies” (World Economic Forum, n.d.).

As the old adage says “prevention is better than cure”. This is precisely the notion that employers should seriously take a look at, because if employers do not heed this warning, there is a possibility that employers would shift the burden of HIV/AIDS to the government (BU Digital Common, 2010) or reduce employees benefits, such as death and retirement benefits.

2.11 Macroeconomics and Health

Macroeconomics is defined as the study of aggregate economic behaviour and it is measured by output (Gross Domestic Product) growth, Unemployment and Inflation (Schiller, 2009). According to Schiller, the macro economy is in trouble when output growth slows down. Some of the causes of slow growth may be an increase in unemployment rate and inflation.

Every company requires human capital or labour force in order to be able to increase its production (Lovász & Schipp, 2009). Companies do not just need a labour force, but they need a healthy labour force in order to function at an optimum level and increase production (Partnership for Prevention, 2010). Poor health leads to poverty and poor economic growth. There were estimates that “the economic value of lost life years in 1999 due to AIDS were estimated to be 12% of the GNP of sub-Saharan Africa” (World Health Organisation, n.d.). From the foregoing, one can therefore conclude that it is important for the governments and the corporate world to invest in the well-being of the labour force in order to improve the economy.

The report by Whiteside bears testimony to this effect when he points out that there is evidence that links poor health to poverty or better health to economic growth (Whiteside, 2010). The long period of HIV/AIDS illness reduces labour productivity (Dixon *et al.*, 2010) through presenteeism which results in lost productivity as employees come to work but under performs as a result of illness or because they are worried about their relatives who are sick (Yamamoto *et al.*, 2009). The HIV/AIDS pandemic affects the economy through its impact on the labour supply which is caused by increased mortality and morbidity. This is worsened by the loss of skills, which are not easily replaced, in key sectors of the labour market (Dixon *et al.*, 2010).

Among the key sectors that are affected is the mining and the health sector. It has been predicted that 60% of the mining workforce aged 30 and 44 years would fall within 15 years to 10% as a result of the HIV/AIDS epidemic (Dixon *et al.*, 2010). The decrease in productivity caused by the HIV/AIDS epidemic will lower domestic productivity and reduces exports thus increasing imports of expensive healthcare goods and other goods (Lovász & Schipp, 2009). The imbalance caused by decreased exports and increased imports, affects aggregate demand and subsequently the fiscal policy of the government. The danger of this imbalance is that this could cause defaults on debt payments by the government as net exports become negative and will force the government to request economic assistance from the international community such as the World Bank (Schiller, 2009).

In order to counteract the impact of ill-health on the labour force and the population as a whole, the Director-General of the World Health Organisation established a Commission on Macroeconomics and Health (CMH) in January 2000, in order “to study the links between increased investments in health, economic development and poverty reduction” (World Health Organisation, n.d.). The CMHs’ analysis revealed that:

- “(a) ill-health contributes significantly to poverty and low economic growth;
- (b) a few health conditions account for the high proportion of ill-health and premature deaths;
- (c) a substantial increase in the use of cost-effective interventions in addressing priority health problems can potentially save millions of lives per year;
- (d) a close-to-client (CTC) system is required to increase cost-effective interventions targeting the poor;
- (e) the current level of health spending in Member States is not sufficient to help implement cost-effective interventions”.

In May 2002, the CMH action agenda was held by the Fifty-fifth World Health Assembly which was commended “as a useful approach to the achievement of the Millennium Development Goals (MDGs)” and the targets of the New Partnership for Africa’s Development (NEPAD).

The MDG’s emphasised the importance of the governments of the rich countries to partner with governments of the poor countries by investing in the healthcare sectors of the poor countries in order to improve economic growth. It is believed that through this drive, a healthy labour force would improve productivity; and investment in health for the rest of the population would ensure a constant supply of a healthy labour force. This notion is supported by Jack and Lewis when they said that “good population health is a critical input into poverty reduction, economic growth and long-term economic development” (Jack & Lewis, 2009).

One of the MDG’s that South Africa chose was the combat of HIV and AIDS, malaria and other diseases (Goal 6). There are two targets for this goal:

- (1) Target 7: to have halted the HIV pandemic by 2015 and reverse the spread of HIV and AIDS and
- (2) Target 8: to have halted by 2015 and began to reverse the incidence of malaria and other major diseases (The Presidency Government of South Africa, n.d.).

The main focus was on goal 6, target 7 because it involves HIV and AIDS. The indicators set for this target are as follows:

- HIV prevalence among 15- to 24-year-old pregnant women
- Contraceptive prevalence rate
- Number of children orphaned by HIV and AIDS

The 2011 ante-natal HIV survey results (Table 2.4) of pregnant women who visit public health facilities “show a statistically significant decrease in the national prevalence rates of HIV” (National Department of Health, 2011). The results for the KwaZulu-Natal province alone show a decrease in the prevalence rate of HIV among pregnant women of 39.5% for 2009, 39.5% for 2010 and 37.4% for 2011, respectively as shown in table 2.4 below.

Table 2.4: HIV Prevalence among antenatal women by province, RSA 2009 to 2011

	2009			2010			2011		
	N	% Prev.	95% CI	N	% Prev.	95% CI	N	% Prev.	95% CI
SA	32 861	29.4	28.7-30.2	32 225	30.2	29.4-30.9	33 326	29.5	28.7-30.2
EC	4 225	28.1	26.1-30.1	3 994	29.9	28.2-31.7	4 099	29.3	27.5-31.1
FS	2 336	30.1	28.1-32.1	2 223	30.6	28.3-33.0	2 292	32.5	30.5-34.5
GA	7 187	29.8	28.6-31.1	6 714	30.4	29.1-31.8	6 948	28.7	27.3-30.1
KZN	6 744	39.5	38.1-41.0	6 887	39.5	38.0-41.0	6 714	37.4	35.8-39.0
LP	3 412	21.4	19.7-23.1	3 117	21.9	20.3-23.6	3 651	22.1	20.6-23.7
MP	2 049	34.7	32.5-36.9	2 202	35.1	32.6-37.7	2 116	36.7	34.3-39.2
NW	2 227	30	27.5-32.6	1 963	29.6	27.3-31.9	2 352	30.2	28.2-32.4
NC	1 002	17.2	14.3-20.5	1 144	18.4	16.1-21.1	1 125	17	14.3-20.0
WC	3 679	16.9	13.8-20.5	3 981	18.5	15.1-22.5	4 029	18.2	14.3-22.8

N= Realised sample size

CI= Confidence Index

Reproduced from: www.health-e.org.za

Furthermore, as shown in Figure 2.1 below, HIV prevalence in the age group 15-19 years old, show a reduction 14.0% in 2010 to 12.7% in 2011. This indicated a reduction in new infections (incidence) in the population. In addition, there was a decline from 26.7% in 2010 to 25.3% in 2011 in HIV prevalence in women in the 20 to 24 year age group. Since these were women of child-bearing age, the decline in new infections could be attributed to the successful implementation of HIV Voluntary Counselling and Testing (VCT), Prevention of Mother-To-Child Transmission (PMTCT) and the Comprehensive Care Management and Treatment (CCMT) programmes.

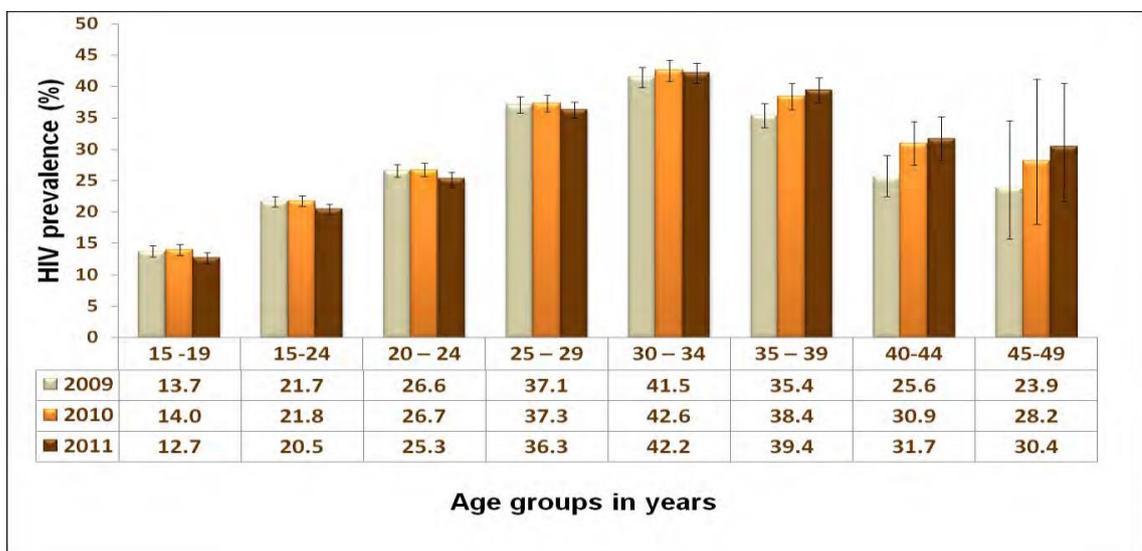


Figure 2.1 HIV prevalence trends among antenatal women by age group, South Africa, 2009 to 2011.

However, HIV prevalence remained unchanged and in some instances reflected some increases in the older age groups (30-34 years; 35-39 years and 40+) although these were not statistically significant. Dhlomo (2010), stated that “in order to strengthen its efforts to combat HIV and AIDS, SA produced the Comprehensive Plan for HIV and AIDS, as well as the Inter Sectorial Strategic Plan for HIV and AIDS for 2007 to 2011” (Dhlomo,2010). The 2007 to 2011 Strategic Plan for HIV and AIDS built on the gains of the Strategic Plan for 2000 to 2005 (Dhlomo, 2010). The country’s response to the major challenge of HIV and AIDS served as the framework in the Strategic Plan.

In 2007, 90% of the public health facilities provided HIV Voluntary Counselling and Testing (VCT) and the Prevention of Mother-To-Child Transmission (PMTCT) in order to satisfy the Close-To-Client system as recommended by the CMH Commission (Dhlomo, 2010). By May 2007, a cumulative total of 303 788 patients has been put on antiretroviral treatment, in 316 sites of the Comprehensive Care Management and Treatment (CCMT) across the nine Provinces.

The private sector as well as the Correctional Service added these facilities, as part of their workplace policy, in order for their employees and inmates to benefit from the CCMT programme, respectively (Mapisa-Nqakula, 2009).

2.12 Summary

There is no doubt that HIV/AIDS has an impact on labour, households, children, the micro-economy and the macro-economy of South Africa and globally through loss of productivity caused by HIV/AIDS-related sicknesses and deaths. The combined effect of employee's sicknesses, deaths, absenteeism and presenteeism due to HIV/AIDS impacts negatively on all aspects of work life. Several studies have been conducted in order to establish these facts and recommendations made on the improvement of the HIV/AIDS impacts on the economy. These involved the roles to be played by private companies in implementing HIV/AIDS workplace policies and the government in ensuring that the millennium development goals agreed to in the CMH agreement are met. The importance of the public sector and the private sector in working together, to fight the devastating effects of HIV/AIDS on the economy and the wellness of the South African citizens and the labour force as a whole, cannot be underestimated.

CHAPTER THREE

Research Methodology

3.1 Introduction

The research started by formulating a questionnaire that consisted of qualitative and quantitative questions. Three questions out of a total of fifteen (15) questions were qualitative and the rest were quantitative. Two (2) of the qualitative questions used a 4-point Likert-type and a rating scale in order to establish the respondent's knowledge of the impact of HIV/AIDS in their businesses. In this study the Likert-type scales were designed in such a way that forced the respondents to agree or disagree by removing the middle option of "Neither agree nor disagree". This sought to obtain answers that would hopefully be based on facts within the respondent's organisation. It is for this reason that the questionnaire was directed at senior and/or middle management of organisations.

3.2 Aim and Objectives of the Study

The aim of this study was to establish the financial impact of HIV/AIDS on eThekweni businesses and its economy. The objectives of this study were to establish:

- The number of HIV/AIDS-related deaths in a sample of the eThekweni businesses.
- Additional costs to companies caused by HIV/AIDS-related deaths and treatment for HIV/AIDS disease.
- The loss of productivity due to absenteeism caused by HIV/AIDS-related matters.

3.3 Research Design and Methods

The sample size of 382 as established by the population size table is used for this study. The research design that is used in this study is quantitative in nature, as the goal is to explore the impact of HIV/AIDS on eThekweni Businesses. Salkind (2012), defines qualitative research “as a social or behavioural science research that explores the processes that underlie human behaviour by using exploratory techniques such as interviews, surveys, case studies and other relatively personal techniques” (Salkind, 2012). Quantitative research is a form of quantitative study involving a large number of subjects, with random assignments to different groups, using objective outcome measures and analysed with inferential statistics (Streiner, 2013). The frequency of occurring events are used in quantitative research methods whilst qualitative methods provide a broader understanding and a more thorough reasoning behind the event (Razafsha, Behforuzi, Azari, Zhang, Wang, Kobeissy & Gold, 2012).

3.3.1 Quantitative Research Methodology

Quantitative research method asks questions such as “how often” and “how many” in order to try to understand the frequency of an event (Razafsha *et al.*, 2012). Quantitative research methods are based on quantity, measurement and objectivity and these qualities are believed to make studies more reliable and valid.

3.3.2 Qualitative Research Methodology

Qualitative research is defined “as a form of systematic empirical inquiry into meaning or broad umbrella term for research methodologies that describe and explain persons, experiences, behaviours, interactions and social events” (Razafsha *et al.*, 2012). The qualitative research method is believed to be subjective and it lacks validity and reliability.

3.3.3 Triangulation/Mixed Research Methodology

According to Guion, Diehl & McDonald (2011), qualitative researchers use triangulation to “check and establish validity of the study by analysing a research question from multiple perspectives”. The use of both qualitative and quantitative research methods is believed to increase the validity of the study.

3.3.4 The Research Methodology Adapted for the Study

This study used quantitative research methods to establish the impact of HIV/AIDS on eThekweni businesses. The choice of quantitative research method for this study was aimed at establishing the number of HIV/AIDS positive employees in organisations and how their sickness or death affected the organisations financially and how it affected eThekweni municipality, economically. Questionnaires were used in this study and responses were analysed by using the statistical software in the Questionpro® programme. The Cronbach’s Alpha was used to test the validity and reliability of data. Histograms and pie charts were used to publish the results of the survey.

3.4 Validity and Reliability of the Study

3.4.1 Validity

Salkind (2012), defines validity as the “truthfulness, accuracy, authenticity, genuineness and soundness of the research instrument”. Salkind further explains validity as “the degree to which an instrument measures what it is supposed to be measuring” (Salkind, 2012). In this study the questionnaire contained questions that solicited answers that met the set objectives.

3.4.2 Reliability

Kumar (2011), defines reliability of the research instrument as an instrument that is consistent, stable, predictable and accurate. When the same set of information is collected more than once using the same instrument and get the same or similar results under the same or similar conditions, the research instrument is considered to be reliable (Kumar, 2011).

In this study, the research instrument was constructed in such a manner that it measured the objectives of the study. Although a non-probabilistic sample was chosen for the study, the respondents were targeted in order to ensure that the questionnaire was answered by respondents who met the criteria and who, therefore would give reliable responses that would be used to generalise on the impact of HIV/AIDS on eThekweni Businesses. The questions were worded correctly thus eliminating ambiguity which could interfere with the respondent's responses.

The reliability of the research instrument was tested by using Cronbach's alpha which yielded a value of 0.8 (Tavakol & Dennick, 2011). Cronbach's alpha is used to test for internal consistency of a test or scale and is expressed as a value between 0 and 1.

3.5 Questionnaire Construction

The questionnaire was accompanied by a cover page which clearly stated the purpose of the study. The questionnaire had fifteen (15) questions; three (3) of which were qualitative and the rest were quantitative in nature. Qualitative questions had a four (4) point Likert-type scale. The second question in the questionnaire was designed as a screening question. If the answer to the second question was a 'No', the questionnaire came to an end. However, if the answer was a 'Yes' it allowed the respondent to complete the rest of the questionnaire because then it meant the respondent had relevant information to contribute to the study (Appendix 4). For the online questionnaires, the same format as it appeared on the hard copy was captured onto the Questionpro® online survey.

Besides the qualitative questions, quantitative questions seek to find out the number of employees in the organisation of the respondent and how many of those were diagnosed with HIV/AIDS. The questionnaire went on to establish how many were on antiretroviral treatment, how many had died due to HIV/AIDS, the cost of replacing or pension pay outs for those who died, training costs, cost of introducing automation to reduce dependency on labour force and the impact of absenteeism on the employer which is caused by HIV/AIDS-related illnesses. These questions covered the objectives of the study.

3.6 Pilot Study

The study was piloted to known businessman and woman who manage companies in the eThekweni region and some were distributed by approaching managers and owners directly. There were twenty (20) questionnaires that were issued to respondents. Out of the twenty questionnaires, twelve (12) were returned (60% response rate) with eight (8) non-returns.

However, it was time consuming and costly to set up appointments telephonically and driving to the respondents to hand out the questionnaires. As a result of the pilot study it was then decided to run the full survey online by using the Questionpro® platform. Various changes were made to address questions that were double-barrelled and vague. The Questionpro® platform allowed a large number of respondents to be reached through emails. This method proved to be faster, less costly and less time consuming and has been used throughout the study.

3.7 Population and Sampling

Initially there was desired that the respondents be drawn from the Telkom Yellow Pages business directory. There are 65,013 businesses listed in the Telkom Yellow Pages and according to the population size table, 382 businesses were to be surveyed to obtain a representative sample. However, sampling 382 businesses was beyond the capacity of this study and it would be time consuming and costly. After failed attempts to get access to the Durban Chamber of Commerce business database, the University of KwaZulu-Natal (UKZN) Graduate School of Business & Leadership (GSB&L) was approached and permission was granted to survey the Master of Business Administration (MBA) students.

Since the study was about getting to understand “real life” issues around the impact of HIV/AIDS on eThekweni Businesses, quantitative research methodology was conducted. This meant that the study did not require statistical generalizability with p-value of 0.05 and 95% confidence (Salkind, 2012). Primary data was obtained by sending online questionnaires through the Questionpro® website to UKZN MBA respondents. In this study the non-probabilistic or convenience sampling method, with MBA students as a captive sample were used (Salkind, 2012).

The UKZN MBA students were considered to be a representative sample because, 1) MBA students represented businesses and, 2) in order to be accepted into the MBA programme the prospective students must have had at least three (3) years managerial experience in their organisations (Graduate School of Business & Leadership, n.d.).

The non-probability sampling method was chosen because non-probability is a more economical procedure than random sampling and is less complicated. In this method judgement was used to select eligible subjects who meet the criteria. For this study eligible subjects were managers of businesses such as retail businesses, banks, manufacturing, distribution, transportation businesses, etc.

In order to increase sample size, some of the sample was drawn from business associates or leads obtained from prominent companies in the eThekweni region and a snowballing technique was used. The snowballing technique involved the use of referred respondents by other respondents. Since managers of businesses were targeted for the study, most of the managers who were approached were more than willing to refer other managers. In this way 20 questionnaires were answered. Some of these questionnaires were referred online and some manually by handing the questionnaire to targeted respondents.

3.8 Administration of the Questionnaire

The questionnaires were administered by using two different methods; 1) by using Questionpro® online programme and 2) by distributing hard copies of the questionnaires to the targeted research group and capturing the responses manually onto the Questionpro® website for report analysis. In order to have access to UKZN MBA students, permission was sort from the Graduate School of Business administrator. For questionnaires that were administered manually, gatekeepers and the informed consent letters were submitted to respondents before the questionnaires were answered.

Challenges were encountered in the course of questionnaire administration and consolidation of collected data. For those questionnaires that were administered by handing hard copies to respondents, some of them were not returned on time. Respondents were called and reminded to complete and return questionnaires. Challenges with online questionnaires were different. Some respondents attempted the questions and left them hanging. Online reminders were sent on the Questionpro® website and also to their private emails. Some responded after the reminders were sent but some failed to respond. In this study there were 20 dropouts because of this problem.

3.9 Data Collection Strategies

Data was collected through online questionnaires and some were distributed to targeted groups manually, through a referral system. The majority of the questionnaires were distributed through the Questionpro® website. Respondents were MBA students from UKZN GSB, who represented businesses in the eThekweni region. To gain entry into the UKZN MBA programme, prospective students must have had a minimum of three (3) years managerial experience (Graduate School of Business & Leadership, n.d.). Some respondents were identified through a referral system and those responses were captured manually onto the Questionpro® website.

3.10 Ethical Considerations

Every study or research requires ethical approval before research can be done. In this study it was even more important that ethical clearance is obtained because the study dealt with HIV/AIDS.

3.11 Permission to Conduct the Study

The application for ethics approval was made through the Humanities & Social Sciences Ethics Committee office at the University of KwaZulu-Natal. The ethical approval number HSS/0809/2010 was issued for this study (Appendix 1). The informed consent and gatekeeper letters, which contained a statement on confidentiality and anonymity, were issued to all respondents before they participated in the study.

Ethical approval was sought before the study was done, especially because this particular topic dealt with HIV/AIDS which is regarded as a confidential matter because of the stigma attached to it. Some of the respondents needed assurance that their organisation's identity remained anonymous. Fortunately, the consent letter assured them of anonymity and confidentiality (Appendix 2).

3.12 Principles of Research Ethics

According to Salkind (2012), "as long as researchers use humans and animals as participants of the study, the manner in which these humans and animals are treated and benefit from the study are critical issues that must be kept at the forefront of all considerations".

3.12.1 Principle of Beneficence

Pantilat (2008), defines beneficence "as action that is done for the benefit of others". Beneficent actions are actions that are taken to help prevent or remove harms or to simply improve the situation of others (Pantilat, 2008). The principle of beneficence was traditionally understood as the "first principle" of morality, the dictum "do good and avoid evil" lends some moral content to this principle (Ascension Health, n.d.). This principle encompasses freedom from harm and exploitation.

In this study there was no physical harm that was caused by completing the questionnaires, but it is likely that respondents might have experienced some psychological discomfort that resulted from questions that needed a response to the knowledge of HIV/AIDS-infected employees if the respondent was also diagnosed with HIV/AIDS. The questionnaire included telephone numbers and email address that respondents could use if they wanted to discuss any aspect of the study or questionnaire. Since the intention of the study was to establish the number of HIV/AIDS-infected employees in organisations and what workplace policies has been implemented by the organisations to prevent HIV/AIDS deaths in order to remain productive, the employees and employers would benefit from the recommendations of this study.

3.12.2 Principle of Respect for Human Dignity

Mattson & Clark (2011), define human dignity as a commonwealth of individuality assessed well-being, shaped by relationships with others, affected by the physical world and framed in terms of values (Mattson & Clark, 2011). This is based on the principle that every human being has an inherent dignity and inherent rights (Andorno, n.d.). The respondent's rights to self-determination were honoured in this study because respondents were not forced into participating in the study. Respondents had the right to answer any questions including those that they felt caused discomfort. They could answer these questions in privacy and wherever they chose to access online questionnaires, and to ask for explanation about any aspect that caused some uncertainty.

The right to full disclosure was respected because it was explained in the consent letter that the respondent has a right to participate or not to participate in the study (Appendix 2). Each face to face respondent voluntarily signed the consent form. The online questionnaire had the consent form attached as a cover page. The respondents were informed of their rights to participate or not to participate. The respondents were given the option to exit the online survey if they did not wish to participate in the study. The respondent's acceptance to continue with the online survey was taken as a signed consent form and their voluntary agreement to participate in the study. Confidentiality was maintained because names of respondents and their organisations were not disclosed in the research study.

3.13 Research Limitations/Challenges

Since HIV/AIDS is a sensitive topic, some of the respondents might have had difficulty in answering the questionnaire or revealing the impact of HIV/AIDS on their businesses. It is possible that some of the organisations could not have had accurate records or knowledge of the extent of HIV/AIDS in their organisations because employees were not required by the law to reveal their HIV status to the employer.

Because of time constraints and the deadline to complete the study, the majority of the respondents failed to respond on time even after they were reminded to do so, with the result that a smaller sample run was envisaged at the outset being used.

3.14 Data Segmentation and Analysis

Data segmentation and analysis was performed by using the Questionpro® data analysis platform.

3.15 Summary

This chapter discussed the research methodology of the study and described how the research was designed, the targeted population, sampling method, data-collection instrument that was used and the limitations and challenges of the study and ethical issues. Chapter four contains the presentation of the findings.

CHAPTER FOUR

Presentation of Results

4.1 Introduction

This chapter focuses on the analysis and discussion of the data findings pertaining to the impact of HIV/AIDS on eThekweni Businesses. In analysing qualitative data, the method of analysis is less structured than in the analysis of quantitative data. As outlined in the previous chapter, data was collected through online questionnaires. The questionnaire consisted of fifteen questions which took 10 to 15 minutes to complete.

4.2 Findings

The responses to the online questionnaire were analysed with the assistance of the Questionpro® data analysis programme. In total, there were 84 respondents in this study. Out of the 84 respondents, 20 dropped out of the study. Thus 64 respondents participated in this study. The responses to each of the fifteen questions were grouped and the findings are as follows.

4.2.1 Number of Employees in the Organisation

Out of the seventy-four organisations that responded to this question, thirty (40.54%) of the organisations employed more than eight-hundred employees, followed by twenty-four (32.43%) which had 1-200 employees, eleven (14.86%) had 201-400 employees, seven (9.46%) had 401-600 employees and two (2.7%) had 601-800 employees, as shown in figure 4.1 below.

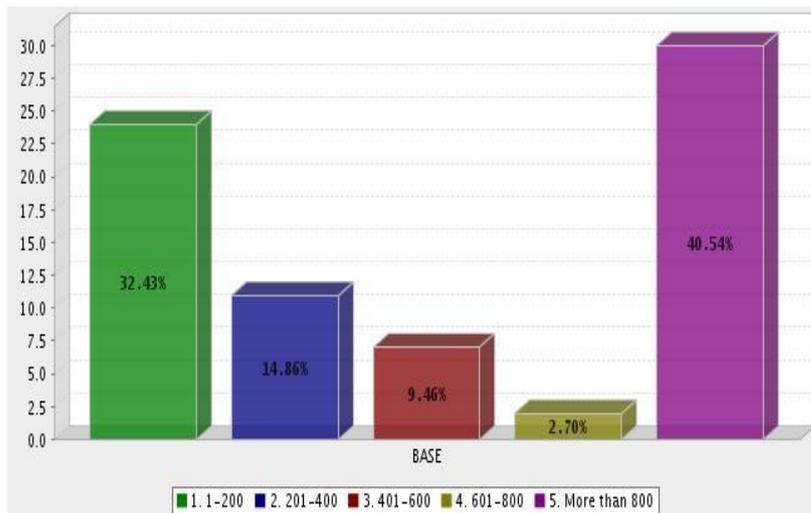


Figure 4.1 Number of employees currently employed in the organisations

4.2.2 Employer's Awareness of HIV/AIDS Infected Employees

The study revealed that out of a total of seventy-two organisations, the majority of employers were not aware of the presence of HIV/AIDS-infected employees in their organisations. This was shown by fifty (69.44%) of the organisations who responded 'no' to the awareness of HIV/AIDS-infected employees (Figure 4.2 below). The reasons that the majority of the organisations were not aware of the number of HIV/AIDS infected employees could be attributed to a number of reasons. One of them could be that employees are not forced to reveal their HIV/AIDS status on assumption of their duties as new employees. Another factor could be the stigma associated with HIV/AIDS which prevents employees from divulging their HIV/AIDS status to their employer, perhaps with the fear also that they might lose their jobs if they come out in the open about their HIV/AIDS status.

There were twenty-two (30.56%) organisations that responded with a 'yes', which meant that they were aware of the existence of HIV/AIDS-infected employees in their organisations. There was a possibility that these organisations had put in place employee wellness programmes that required employees to test voluntarily for HIV/AIDS, thus establishing the extent of the impact of HIV/AIDS in their businesses.

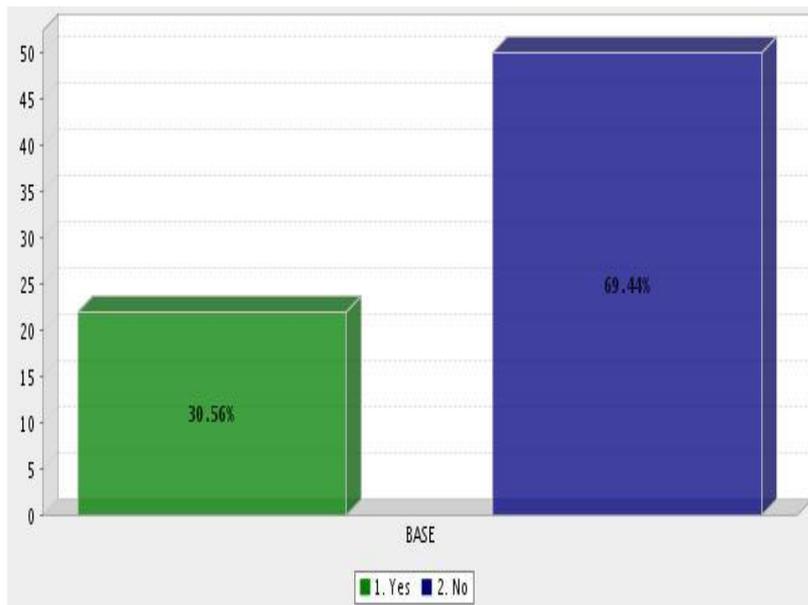


Figure 4.2 Awareness of employers about employees who are HIV/AIDS-infected in their organisations in the last 12 months

4.2.3 Employees Who Have Been Diagnosed With HIV/AIDS in the Last 12 Months

In total, twenty of the organisations that responded to the question on the number of employees who had been diagnosed with HIV/AIDS in the last 12 months, thirteen (65%) organisations who were aware of the existence of HIV/AIDS-infected employees in their organisations revealed that 1-20 of their employees had been diagnosed with HIV/AIDS in the last 12 months. These were followed by four (20%) organisations that had 21-40 HIV/AIDS infected employees, two (10%) organisations had 41-60 HIV/AIDS infected employees and one (5%) organisation had more than 60 employees diagnosed with HIV/AIDS (Figure 4.3 below).

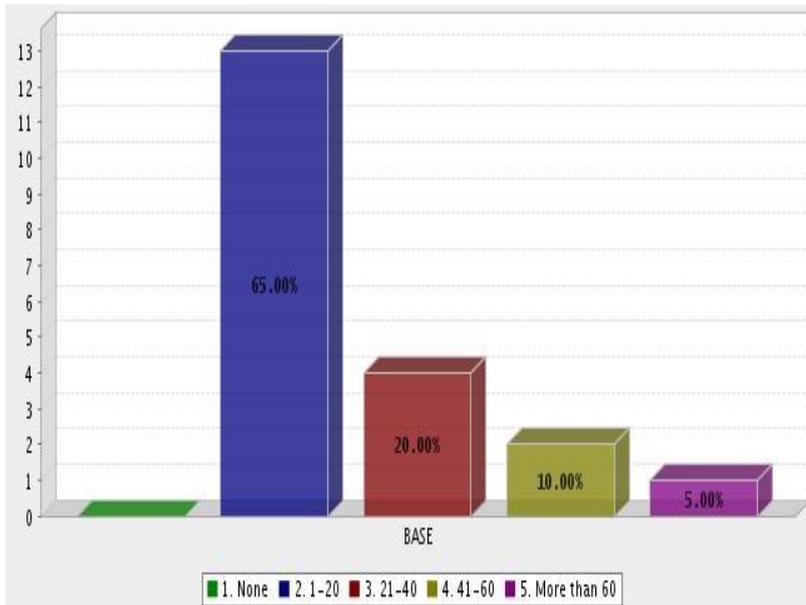


Figure 4.3 Number of employees diagnosed with HIV/AIDS in the last 12 months

4.2.4 HIV/AIDS Infected Employees on Antiretroviral (ARV) Treatment

The study showed that out of a total of eighteen organisations that responded to this question on the number of HIV/AIDS infected employees who were on antiretroviral treatment, twelve (66.67%) organisations had 1-20 of their employees on ARV, two (11.11%) organisations had 21-40 employees on ARV, two (11.11%) organisations had 41-60 employees on ARV and one (5.56%) organisation had more than 60 employees on ARV. There was only one (5.56%) organisation whose employees were not on ARV (Figure 4.4 below).

The responses from this question revealed that those organisations that were aware of the existence of HIV/AIDS-infected employees in their organisations were, in fact investing in their employee wellness by making ARV drugs available for their employees.

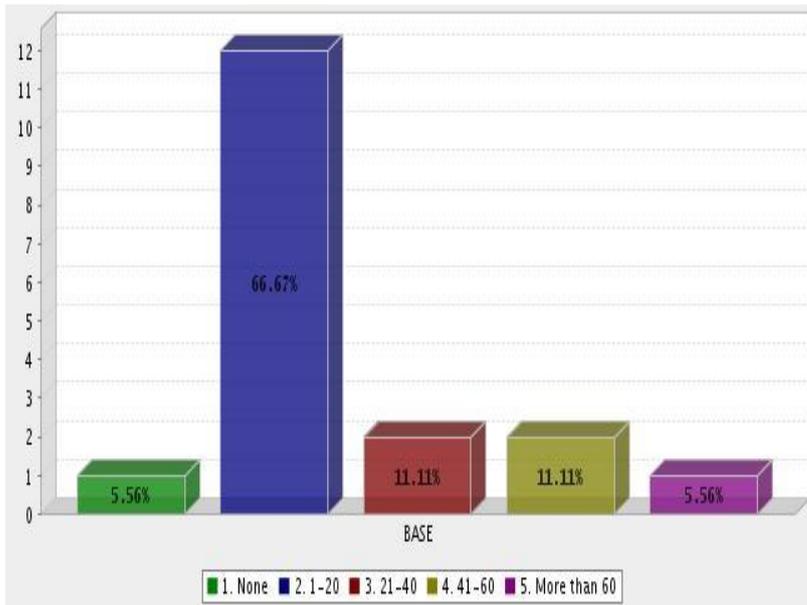


Figure 4.4 Number of HIV/AIDS employees on antiretroviral treatment

4.2.5 Deaths Due to HIV/AIDS-Related Illnesses

There were eighteen organisations that responded to the question on the number of employees who had died due to HIV/AIDS-related illnesses. Twelve (66.67%) of the organisations reported deaths due to HIV/AIDS-related illnesses of 1-20 employees, followed by one (5.56%) organisation that reported deaths of 21-40 employees and one (5.56%) organisation that reported deaths of 41-60 employees. There were four (22.22%) organisations that did not report any deaths (Figure 4.5 below).

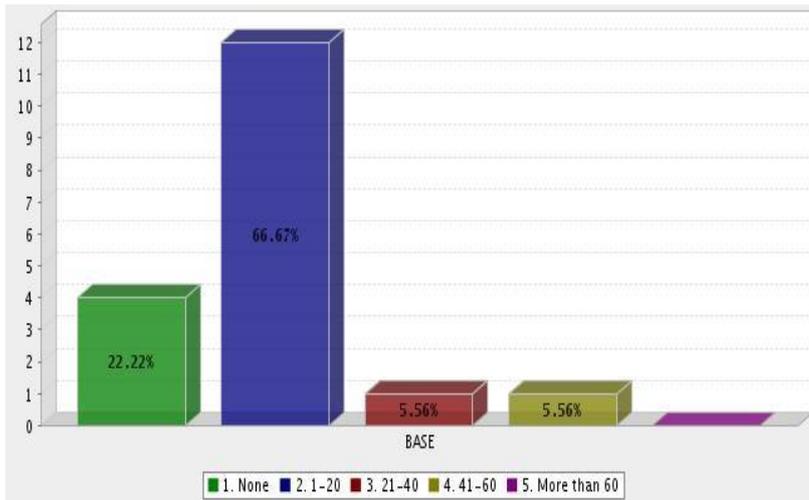


Figure 4.5 Number of employees who have died due to HIV/AIDS-related illnesses in the last 12 months

Twelve (66.67%) organisations were reporting fewer HIV/AIDS-related deaths (1-20 employees) as compared to two others who reported 21-40 and 41-60 HIV/AIDS deaths. The difference in these findings could be attributed to how well some organisations manage the issue of HIV/AIDS in their businesses and the existence of effective employee wellness programmes and policies.

4.2.6 Newly Recruited Employees

There were eighteen organisations that responded to the question on the number of employees who were recruited to replace the ones that had died due to HIV/AIDS-related illnesses. Six (33.33%) of the organisations did not recruit new employees, whilst five (27.78%) organisations recruited 1-20 employees, five (27.78%) organisations recruited 21-40 employees and two (11.11%) organisations recruited more than 60 employees (Figure 4.6 below).

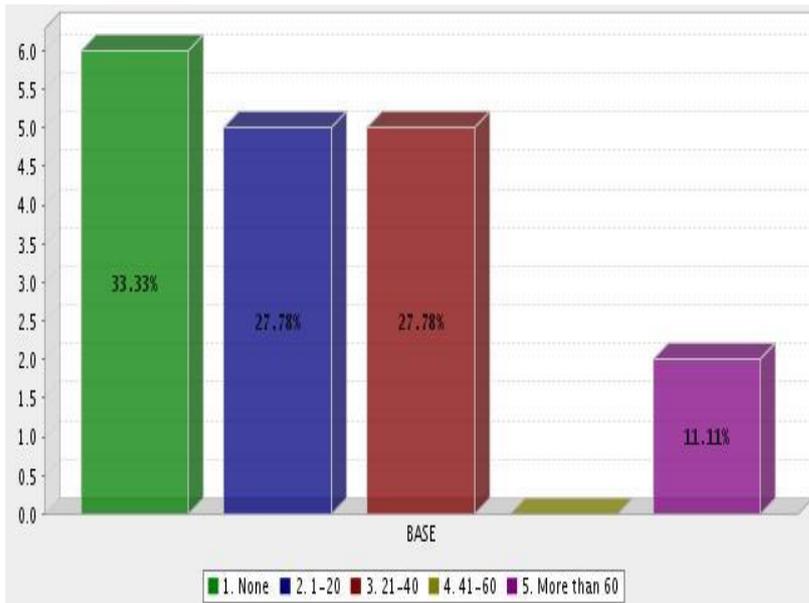


Figure 4.6 Number of employees who had been recruited to replace the ones that have died due to HIV/AIDS-related illnesses in the last 12 months

Those organisations that were recruiting more employees could be those that were adversely affected by HIV/AIDS deaths. It is possible that their employee wellness programmes were not effective or that they did not have enough resources to deal with the impact of HIV/AIDS on their businesses. The reason that the other six organisations did not recruit any employees could mean that they did not experience any HIV/AIDS deaths. Most probably, these organisations had effective well-managed employee wellness programmes and policies that safe-guarded their human resource capital.

4.2.7 Estimated Cost of Recruiting and Training New Employees

On the question of the estimated cost of recruiting new employees, fifteen organisations responded. There were six (40%) organisations that spent more than thirty-thousand rand (R30,000) to recruit new employees, two (13.33%) organisations spent R1,000-R10,000, one (6.67%) organisation spent R11,000-R20,000 and one (6.67%) organisation spent R21,000-R30,000.

There were five (33.33%) organisations that did not spend any money on recruiting new employees because there was no need to recruit new employees (figure 4.6 and 4.7).

The difference in the costs incurred by businesses in recruiting new employees could be due to the fact that HIV/AIDS affected employees from different skill levels. Therefore, in order to attract highly skilled employees to replace those who have died due to HIV/AIDS, higher salary packages had to be advertised. Other costs involved could be due to costs of advertising specialised posts in newspapers and paid time spent by managers in recruiting employees, rather than focussing on their productive duties.

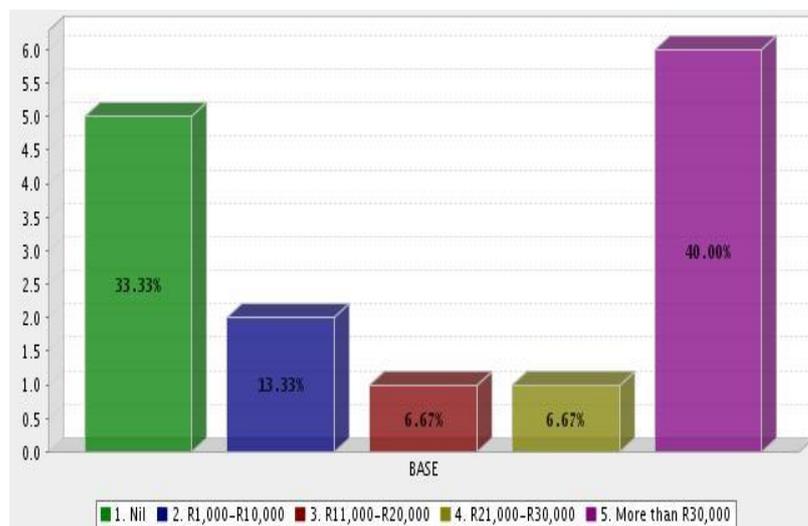


Figure 4.7 Estimated cost of recruiting new employees

On the question of the estimated cost of training new employees, thirteen organisations responded. There were five (38.46%) organisations that reported a cost of more than R30, 000 on training new employees, two (15.38%) spent R1, 000-R10, 000, two (15.38%) spent R11, 000-R20, 000 and one (7.69%) spent R21, 000-R30, 000. There were three (23.08%) organisations that did not spend any money on training new employees because they did not replace employees (figure 4.7 and 4.8).

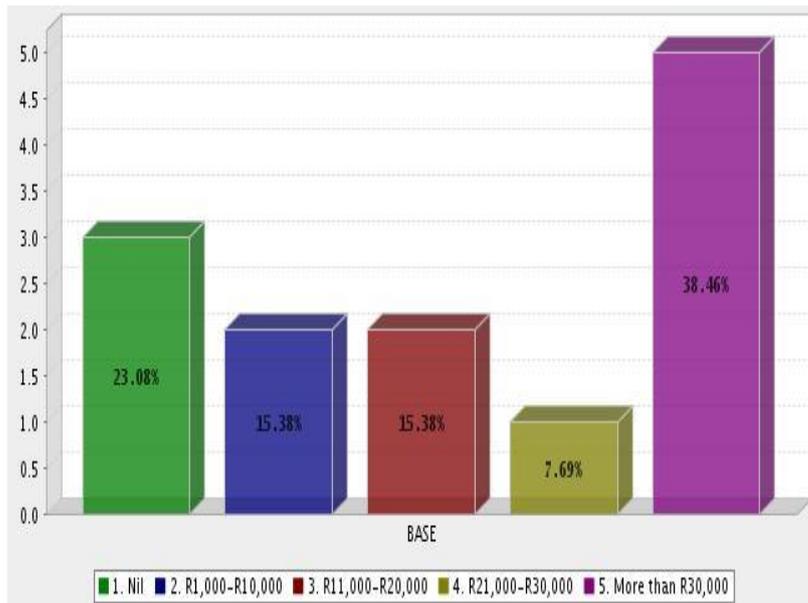


Figure 4.8 Estimated cost of training new employees

Depending on the required skill level of the advertised position, time spent in training new employees could be very costly, especially in light of the fact that new employees cannot be productive on their first few weeks of their employment, yet needed to be paid for the positions that they were employed for.

4.2.8 Introduction of Automation/Machinery in Organisations

When asked whether they believed that buying machinery or automation would reduce dependency on the labour force and increase the organisation's profit margins, fourteen organisations responded as follows. Five (35.71%) organisations strongly agreed, eight (57.14%) organisations agreed and one (7.14%) organisation strongly disagreed. The one organisation that strongly disagreed to the introduction of machinery or automation could be because it believed in putting in place well tested policies to deal with the impacts of HIV/AIDS and as a result drastically reduce HIV/AIDS-related deaths, thus avoiding expensive capital expenditures.

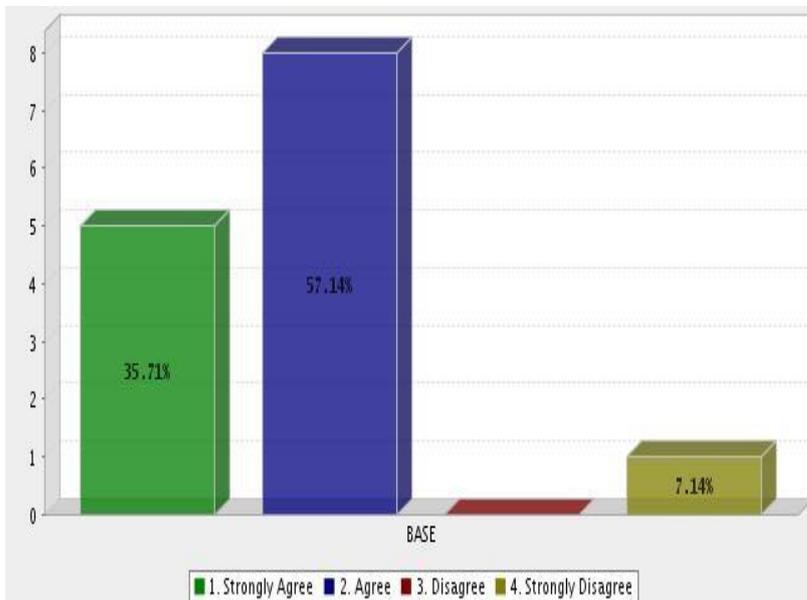


Figure 4.9 Buying machinery or automation reduces dependency on labour force and increases the organisation's profit margins

4.2.9 Cost of Automation/Machinery

Out of the fourteen organisations that agreed or strongly agreed to buying machinery or automation to reduce dependency on the labour force and increase profit margins, 12 of them responded to the question on the estimated cost of automation or machinery. Five (41.67%) organisations spent more than R300, 000 on machinery or automation, four (33.33%) organisations spent R101, 000-R200, 000 and two (16.67%) organisations spent R1, 000-R100, 000. Only one (8.33%) organisation did not spend additional money on machinery or automation.

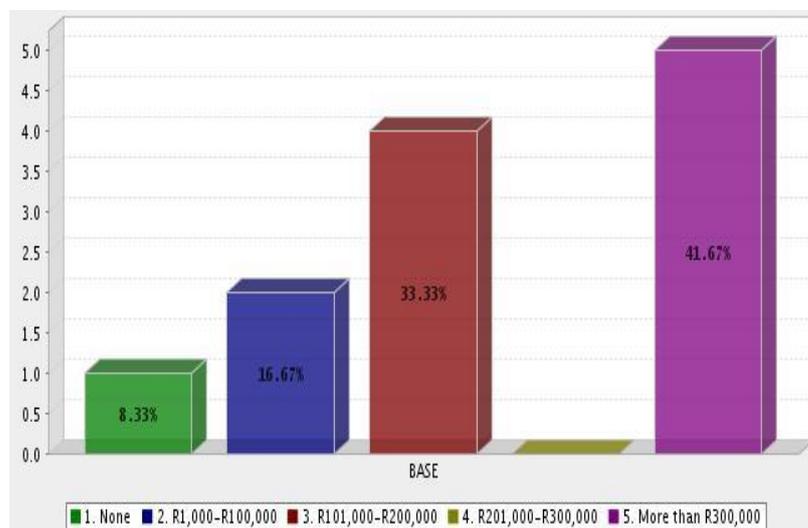


Figure 4.10 Estimated cost of machinery or automation in the last 12 months

4.2.10 The negative impact of HIV/AIDS on organisations

Thirteen organisations responded to the question that HIV/AIDS-related illnesses have/had a negative impact of the organisation's productivity. There were eight (61.54%) organisations that strongly agreed, four (30.77%) organisations agreed, whilst only one (7.69%) organisation disagreed.

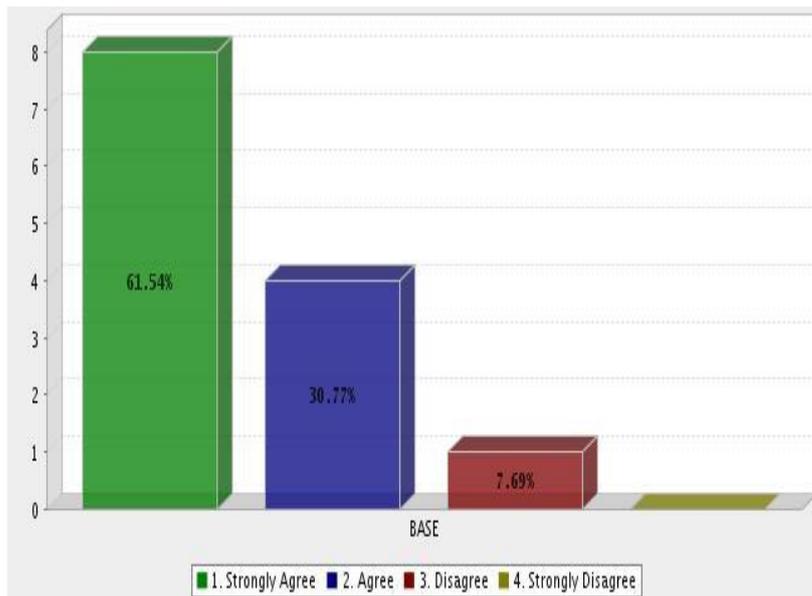


Figure 4.11 HIV/AIDS-related illnesses have/had a negative impact on the organisation's productivity

4.2.11 Man Days Lost Due to HIV/AIDS Infections in Organisations

When asked about the average man days lost in the last 12 months due to HIV/AIDS-related infections, thirteen organisations responded as follows. Five (38.46%) organisations lost more than 40 man days, three (23.08%) organisations lost 11-20 man days, two (15.38%) organisations lost 1-10 man days, two (15.38%) organisations lost 21-30 man days and one (7.69%) organisation lost 31-40 man days. The number of man days lost could be indicative of the severity of the HIV/AIDS infections amongst employees in organisations that were affected.

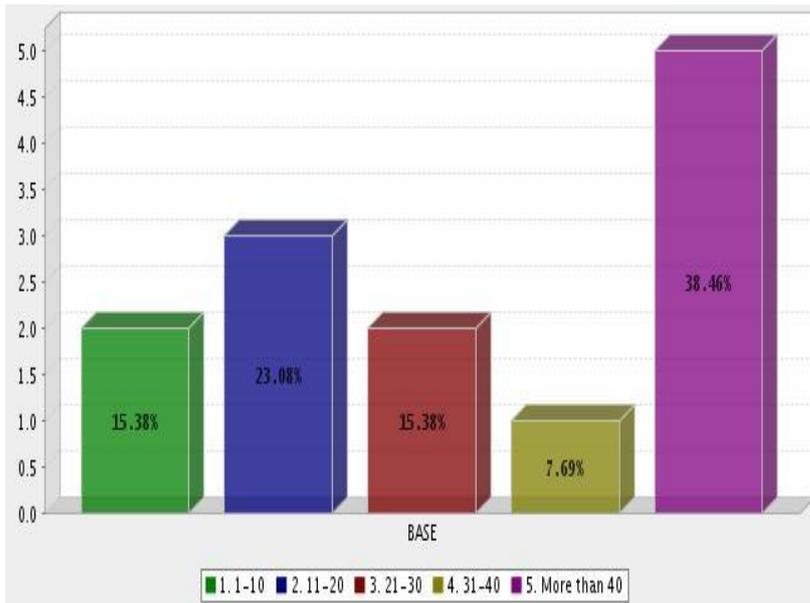


Figure 4.12 Average man days lost in the last 12 months due to HIV/AIDS infections

4.2.12 Cost of Absenteeism Due to HIV/AIDS-Related Illnesses

There were twelve organisations that responded to the question about the cost of sick leave pay due to absenteeism caused by HIV/AIDS-related illnesses. One (8.33%) organisation paid less than R1,000, three (25%) organisations paid between R1,000-R9,999, two (16.67%) organisations paid between R10,000-R19,000, three (25%) organisations paid between R20,000-R29,999 and three (25%) organisations paid more than R29,999.

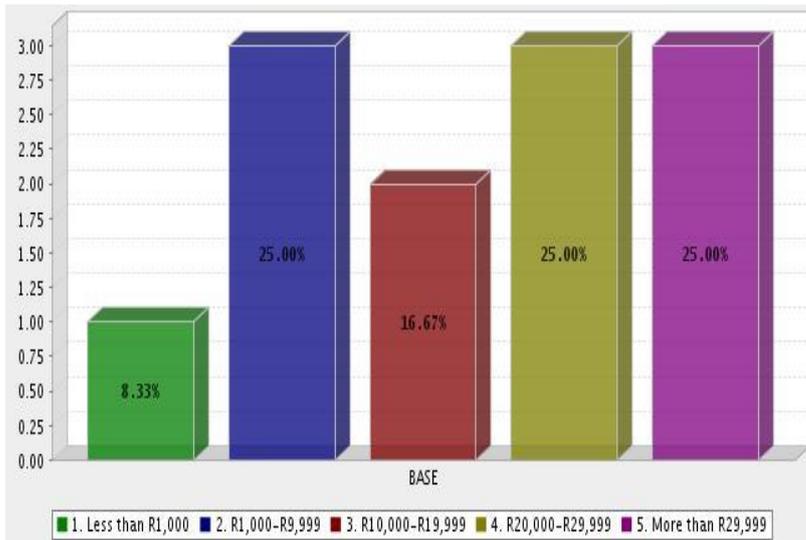


Figure 4.13 Sick leave pay by organisations as a result of absenteeism due to HIV/AIDS-related illnesses in the last 12 months

4.2.13 Number of Employee Lay-offs and Costs Due to HIV/AIDS-Related Illnesses

When employees are laid-off, there is a cost involved which comes as a form of compensation for them being out of employment. On the question on the number of HIV/AIDS employees who had been laid-off in the last 12 months, thirteen organisations responded. Six (46.15%) organisations had 1-20 of their employees laid off; one (7.69%) organisation had 21-40 employees laid off, whilst six (46.15%) organisations did not experience any lay-offs.

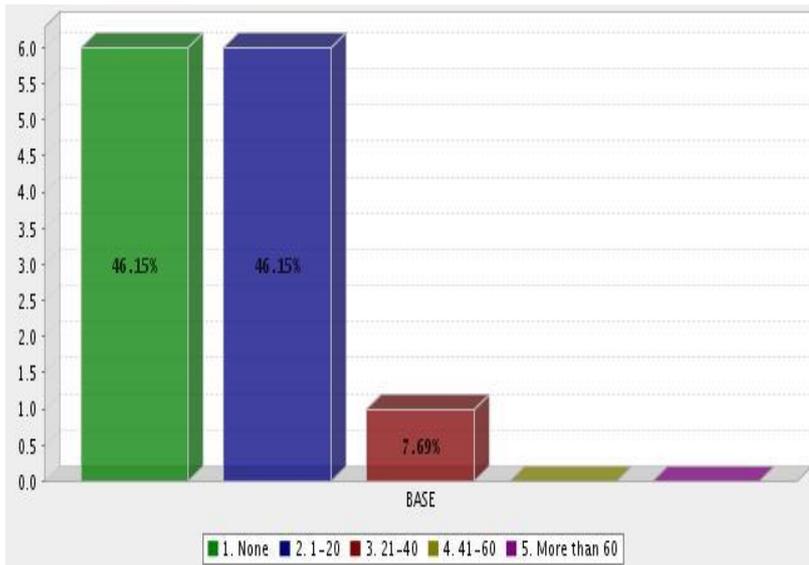


Figure 4.14 Number of HIV/AIDS-infected employees who had been laid-off in the last 12 months

Thirteen organisations responded to the question about the cost of laying-off employees due to HIV/AIDS-related illnesses. Four (30.77%) organisations spent R10, 000-R19, 999, two (15.38%) spent R20, 000-R29, 999 and one (7.69%) organisation spent more than R39, 999. It was also found that six (46.15%) organisations did not spend any money on lay-offs.

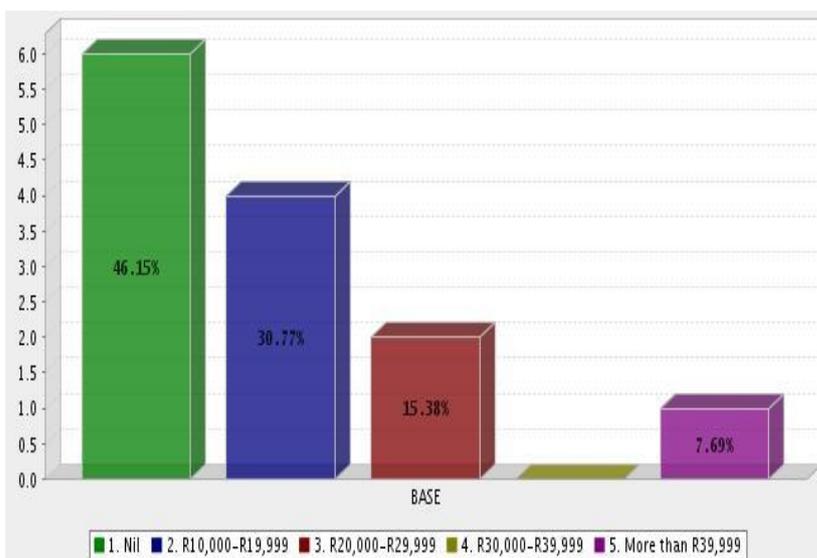


Figure 4.15 Cost of HIV/AIDS-infected employee lay-offs in the last 12 months

4.3 Summary

This chapter looked at the data that was collected through the questionnaire and analysed by the Questionpro® programme. The data that was collected ranged from the awareness of HIV/AIDS-infected employees in the organisations, the number of HIV/AIDS-infected employees who were on ARV treatment, HIV/AIDS deaths, cost of recruiting and training new employees, cost of automation or acquisition of machinery, the negative impact of HIV/AIDS on organisations, the cost of man days lost, the cost of sick leave pay and lay-offs. The next chapter discusses the results in detail and links them to the objectives and literature.

CHAPTER FIVE

Discussion of the Findings

5.1 Introduction

In this chapter the data that was presented in chapter four is evaluated and discussed in detail. The objectives of the study are discussed and linked to the questions in the questionnaire. Previous works on similar topics is looked at with the aim of supporting or refuting the findings of this study and thus provide a framework for future research into this field.

5.2 Evaluation of Data Presented

The evaluation of the data presented in chapter four is structured in terms of the objectives of the study which are linked to specific questions in the questionnaire that address that particular objective. The broad headings that meet the objectives are as follows.

5.2.1 HIV/AIDS-Related Deaths in Organisations

The findings from questions 3, 4 and 5 are discussed under the broad heading of HIV/AIDS-related deaths in organisations. These questions covered the number of employees who had been diagnosed with HIV/AIDS in organisations, the number of HIV/AIDS employees who were on ARV and the number of employees who had died as a result of HIV/AIDS, respectively and are discussed in that order.

5.2.1.1 The Number of Employees Diagnosed with HIV/AIDS

This topic addresses the findings in response to question 3 of the questionnaire. The findings established that businesses were affected by the HIV/AIDS epidemic and that some employers were aware of the magnitude of the HIV/AIDS problem in their businesses or organisations. Although fifty (69.44%) employers in this study were not aware of the number of HIV/AIDS infected employees in their organisations, there were many reasons why this has happened.

Amongst the number of reasons, the fact that employees are not obliged to divulge their HIV/AIDS status on employment was one of the reasons. Another factor was the stigma associated with HIV/AIDS which prevented employees from divulging their HIV/AIDS status to their employer, some with the fear also that they will lose their jobs if they come out in the open about their HIV/AIDS status.

In a study by Wilson (2010), it was found that 48.8% of the population and 65% of business managers surveyed believed that HIV/AIDS carriers should not have equal employment rights. Because of this belief HIV/AIDS carriers were fired once their medical status was discovered (Wilson, 2012). In another case in Ecuador, an HIV-positive worker took the employer to court for his dismissal on the grounds that he was HIV-positive (Allard, 2010). Based on the outcome of the AIDS 2010 conference, the International Labour Organisation (ILO) came out with strong recommendations that rejected discrimination against HIV-positive workers (Brands, 2010). The recommendation was aimed at protecting employees and job-seekers from discrimination on the grounds of real or perceived HIV status.

Whilst the international community was battling with the problem of HIV stigma and discrimination in the working environment, locally in Africa the same challenges existed. Sprague, Simon & Sprague (2011), discovered that people living in Zambia and Kenya faced barriers to employment, which includes discrimination in hiring, loss of promotion and termination because of their HIV status (Sprague, Simon & Sprague, 2011).

The dilemma that organisations are faced with, are therefore twofold. On one hand the employers need to know the impact of HIV/AIDS on their businesses so that they can put in place strategies to curb HIV/AIDS impacts and gain competitive advantage; but on the other hand, employers run the risk of being perceived as discriminating or infringing on the rights of HIV-infected employees.

Yap & Ineson (2012), believed that encouraging employees to divulge their HIV/AIDS status freely would need employers to use diversity management theory (Yap & Ineson, 2012). Yap & Ineson (2012), defines diversity management as organisations “complex systematic and planned strategies and commitment that encourage employers, employees and customers in the workplace to tolerate, respect and treat fairly others of diverse characteristics”, such as HIV positive employees (Yap & Ineson, 2012). By using diversity management theory it was believed that it would strengthen organisations competitiveness and efficiency.

5.2.1.2 The Number of Employees on ARV

This topic discusses the findings in question 4 of the questionnaire. Based on the responses, the average number of employees that had ARV treatment were analysed as follows:

Table 5.1: Number of HIV/AIDS employees on ARV treatment				
How many of the HIV/AIDS employees are on anti-retroviral treatment?				
No. of Employees	Aver. No. of Employees	No. of Organisations	Total Aver. No. of Employees	Percentage
None	0	1	0	5.56%
1-20	10.5	12	126	66.66%
21-40	30.5	2	61	11.11%
41-60	50.5	2	101	11.11%
More than 60	60	1	60	5.56%
Total		18	348	100%

The average number of employees multiplied by the number of organisations in each category gave a total of 348 employees who were on ARV treatment.

The study found that many stakeholders including private sector companies are the key to addressing the issue of HIV/AIDS in the workplace by taking the responsibility for addressing the issue of HIV and AIDS. According to Bakuwa (2010), increasing evidence has revealed “that the majority of companies around the world are yet to acknowledge and respond to HIV and AIDS as a workplace issue” (Bakuwa, 2010). Whilst multinational companies (MNCs) in Northern America, Europe and South Africa have enacted the HIV/AIDS initiatives, to promote various HIV/AIDS policies and guidelines, it was disturbing to note that “10 Japanese affiliated companies in Northern Thailand Japanese managers, Thai managers and ordinary Thai workers all considered HIV/AIDS to be “irrelevant” to their company and/or themselves” (Michinobu, 2009).

The ILO and World Health Organisation (WHO) jointly developed policy guidelines for improving health worker’s access to HIV and TB prevention, treatment, care and support services (Kisting, Wilburn, Protsiv & Hsu, 2010). However, these guidelines and recommendations had to be filtered down to organisations, government and other stakeholders for it to be effective in meeting the desired goal of reducing HIV infections, morbidity and mortality amongst humankind. In order to turn the ILO and WHO HIV/AIDS guidelines into effective practice it was required that both the departments of health, labour and unions embrace the idea (Kisting *et al.*, 2010). This view was supported by a study that was conducted in Thetsane Industrial Area in Lesotho, which found that the formation of Apparel Lesotho Alliance to Fight AIDS (ALAFAs) improved production levels of the HIV/AIDS affected garment industries. The mortality and morbidity of employees in garment industries in Lesotho improved significantly by putting HIV/AIDS-infected employees on ARV.

The study of the Impact of HIV/AIDS on eThekweni Businesses has determined that out of the 18 organisations that responded to the question on the number of employees who were on ARV treatment, 17 (94.44%) showed evidence of taking action concerning the matter of dealing with the impact of HIV/AIDS on employees by enrolling HIV positive employees on ARV treatment. Whether ARV treatment has reduced mortality and morbidity of HIV/AIDS infected employees is covered in the next discussion that looked at the number of HIV/AIDS employees who had died due to HIV/AIDS.

5.2.1.3 The Number of Employees Who Died Due to HIV/AIDS

The findings in question 5 of the questionnaire are discussed under this topic.

Table 5.2: Number of Employees who died due to HIV/AIDS				
How many of the HIV/AIDS employees have died due to HIV/AIDS-related illnesses in the last 12 months?				
No. of Employees	Aver. No. of Employees	No. of Organisations	Total Aver. No. of Employees	Percentage
None	0	4	0	22.22%
1-20	10.5	12	126	66.66%
21-40	30.5	1	30.5	5.56%
41-60	50.5	1	50.5	5.56%
More than 60	60	0	0	0%
Total		18	207	100%

In response to the question of the number of HIV/AIDS deaths in the organisations, it was worth noting from the study that, although 17 (94.44%) of the organisations had their employees on ARV treatment, only 4 (22.22%) of the organisations did not experience deaths due to HIV/AIDS. Out of the total of 18 organisations that responded to this question, 14 (77.78%) were affected by HIV related deaths.

There could be many reasons that resulted in the death of HIV/AIDS employees after they commenced ARV treatment. The deaths may have been caused by bad immunologic responses to HIV infection (Danel, Gabillard, Inwoley, Chaix, Toni, Moh, Messou, Bissagnene, Salamon, Eholie & Anglaret, 2009). The term 'bad immunologic response' described the failure of the human immune system to mount a defence mechanism (i.e. production of CD4+ T-Lymphocytes) to fight HIV infection (McMichael, Borrow, Tomaras, Goonetilleke & Haynes, 2010). Some employees could have failed to take ARV treatment during the specified times and doses thus leading to poor adherence and rapid progression to AIDS and death (Danel *et al.*, 2009). Adherence to ARV treatment played an important role in the success of ARV treatment (Natsuo, 2010). However, stigma and discrimination associated with being HIV-positive could be associated with lower adherence and HIV treatment failures among the employees who were on ARV treatment (Peltzer, Friend-du Preez, Ramlagan & Anderson, 2010).

In this study it was expected that if 94.44% of the organisations initiated their employees on ARV treatment, there would be a lower rate of deaths due to HIV/AIDS, however, the study revealed that only 22.22% of the organisations, who initiated ARV on their employees, reported that there were no HIV/AIDS deaths. It appeared from this study that 22.22% was the success rate of ARV treatment, but after going through literature on HIV and AIDS, this view is not supported and it is possible that the deaths arose due to employees commencing treatment with HIV at an advanced stage, not rigidly following the ARV programme and sundry factors.

It can be concluded, however, that initiation of ARV treatment to employees did benefit the organisations and the employees themselves, when more than one-fifth (22.22%) of the organisations responded that there were no deaths due to HIV/AIDS in their organisations. Reduction of absenteeism and presenteeism is expected when employees respond positively to ARV treatment and get better. In addition employees on ARV were at least able to perform their duties at work.

5.2.2 Additional Costs to Organisations Caused by HIV/AIDS-Related Deaths

The findings from questions 6, 7, 8, 10, 13 and 15 are used to discuss the broad heading of the additional costs to organisations caused by HIV/AIDS-related deaths. These questions covered the number of employees who were recruited to replace the ones that died due to HIV/AIDS in the organisations, the estimated costs of recruiting and training new employees, the estimated costs of automation or machinery in order to reduce dependency on the labour force, the costs of sick leave pay due to HIV/AIDS and the costs of laying off employees who are no-longer productive in the organisations, respectively and are discussed in that order.

5.2.2.1 The Number of Employees Recruited by the Organisations

This topic discusses the responses to question 6 of the questionnaire. In this study, 18 organisations responded to the question on the number of employees who were recruited to replace the ones that had died as a result of HIV/AIDS. Some 12 (66.67%) of the organisations recruited new employees, whilst 6 (33.33%) of the organisations did not recruit new employees. These findings are almost in agreement with the previous findings whereby 14 (77.78%) of the organisations experienced deaths due to HIV/AIDS. By looking at the 14 organisations that reported deaths and only 12 organisations that saw the need to recruit new employees, it could be argued that the other 2 organisations must have come up with new strategies to deal with the impact of HIV/AIDS deaths in their organisations such as the introduction of machinery or automation in order to reduce dependency on the labour force and eliminate the need to recruit new employees.

Out of the 12 (66.67%) organisations that recruited new employees, 5 (27.78%) recruited 1-20 employees, 5 (27.78%) recruited 21-40 employees and 2 (11.11%) recruited more than 60 employees. The study showed that each organisation was affected differently by HIV/AIDS deaths in terms of the number of recruited employees. This was shown by the number of employees that the organisations had to recruit in order to replace the ones that had died due to HIV/AIDS.

5.2.2.2 The Estimated Costs of Recruiting and Training New Employees

This topic covers the responses in questions 7 and 8 of the questionnaire. Out of the 12 organisations that recruited new employees, only 10 incurred costs of recruiting and training new employees. As explained above, the other 2 organisations could have found other strategies such as automation in order to deal with the impact of HIV/AIDS deaths in their organisations, thus avoiding the need to recruit and train new employees.

The costs of recruiting new employees includes advertising costs, travelling claims or travel reimbursements and the cost of time spent by management to interview employees. The study revealed the average amount spent on recruitment as follows (Table 5.3 below):

Table 5.3: The Estimated costs of recruiting new Employees

What is the estimated cost of recruiting (i.e. advertising, travelling claims, etc.) new employees?

Recruitment Costs	Aver. Cost of Recruitment	No. of Organisations	Total Aver. Cost of Recruitment	Percentage
Nil	0	5	0	33.33%
R1000-R10,000	R11,000	2	R22,000	13.33%
R11,000-R20,000	R15,500	1	R15,500	6.67%
R21,000-R30,000	R25,500	1	R25,500	6.67%
More than R30,000	R30,000	6	R180,000	40%
Total		15	R243,000	100%

The average total cost of recruiting new employees amounted to R243, 000.

The costs of training new employees is made up of the salaries paid out to trainees even though they were not yet being productive in the organisation, the cost of the trainer and the training supervisor (Blatter, Mühlemann & Schenker, 2009). In this study the total average cost of training new employees were as per table 5.4 overleaf.

Table 5.4: The Estimated costs of training new Employees				
What is the estimated cost of training new employees?				
Training Costs	Aver. Cost of Training	No. of Organisations	Total Aver. Cost of Training	Percentage
Nil	0	3	0	23.08%
R1000-R10,000	R11,000	2	R22,000	15.38%
R11,000-R20,000	R15,500	2	R31,000	15.38%
R21,000-R30,000	R25,500	1	R25,500	7.69%
More than R30,000	R30,000	5	R150,000	38.47%
Total		13	R228,500	100%

The average total cost of training new employees amounted to R228, 500.

According to Blatter *et al.*, (2009), the level of hiring costs differs by industry, occupation and the economic environment of the organisation. Hiring costs consisted of two parts, the cost of recruiting the employee and the costs associated with reduced productivity and training during the adaption period (Blatter *et al.*, 2009). Although the study has revealed that organisations incurred substantial recruitment and training costs, there are cost-effective methods that can be used. These are the internet based methods, also known as E-Recruitment (Agarwal, 2013).

Agarwal (2013), noted that E-Recruitment methods reduced recruitment costs and administration burden. It was found that it is cheaper to advertise online than using the traditional methods of advertising in newspapers.

5.2.2.3 The Estimated Costs of Machinery or Automation

On the question of the introduction of automation or machinery (question 10 of the questionnaire), 13 (92.85%) organisations out of a total of 14 agreed to opt for automation or machinery in order to reduce dependency on the labour force. The decision to introduce automation or machinery could have been driven by the realisation of the HIV/AIDS deaths of 77.78% as mentioned earlier on. Coupled with the cost of recruiting and training, most organisations would definitely opt for automation, thus reducing dependency on labour forces.

In this study, 11 organisations experienced the cost of automation out of a total of 13 who agreed on the introduction of automation in organisations. The average costs of automation were identified as depicted in table 5.5 below.

Table 5.5: The Estimated costs of machinery or automation				
What was the estimated cost of machinery or automation in the last 12 months?				
Cost of machinery or automation	Aver. Cost of machinery or automation	No. of Organisations	Total Cost of machinery or automation	Aver. of Percentage
Nil	0	1	0	8.33%
R1000-R100,000	R50,500	2	R101,000	16.67%
R101,000-200,000	R150,500	4	R602,000	33.33%
R201,000-300,000	R250,500	0	R0	0%
More than R300,000	R300,000	5	R1,500,000	41.67%
Total		12	R2,203,000	100%

The total average cost of automation for these organisations amounted to R2, 203,000 million.

Parker-Bates & Hill, (2010), likened the strategy of automation to a Holy Grail. Automation was found to be desirable but often achievable at a cost that outweighed the benefits (Parker-Bates & Hill, 2010). Because of the cost of automation, I would argue that some organisations could not be in a position to automate their systems, hence the difference in the number of organisations that believed in automation (13 organisations) and the 11 organisations that actually automated their systems.

Although automation cannot completely replace humans in the working environment (Parasuraman & Wickens, 2008), the need for automation cannot be overlooked. The advantages of automation were that it reduced cost, improved accuracy and speeded the logistics of handling processes in organisations (Bloss, 2013). Automation has been found to be more faster, more effective and it could cut costs (Bloss, 2012).

5.2.2.4 Costs of Sick Leave Pay

Under this topic, the findings of question 13 of the questionnaire are discussed. There were 12 organisations that responded to the question about the amount of money organisations had lost due to absenteeism caused by HIV/AIDS-related illnesses. In terms of sick leave pay, one has to bear in mind that paid sick leave means that the employee is being paid the daily salary rate due to him/her even though he/she was not at work. Under this situation one has to also consider the fact that employees who were on sick leave are not productive and thus do not contribute to the profits of the organisation.

The study found that the total of 12 (100%) organisations incurred sick leave pay expenses in varying amounts. The varying amounts of sick leave pay could have been due to different employee pay rates in keeping with the skills mix within that particular organisation.

The average amount of sick leave pay ranged from R1000 to R29,999, with the total average amount spent by all the organisations amounting to R152,495 (average cost multiplied by the number of organisations per category).

The absence of the employee from work has a significant impact on the quality of the business and its productivity. In a study done by Madden (2009), in the United Kingdom, it was found that the cost of absence amounted to £13 billion (R184 billion) per year and the cost per employee was £659 (R9,374) annually (Madden, 2009). Cocker, Martin & Anderson (2012), also emphasised the point that ill-health in employed individuals has an economic impact and is largely experienced in absenteeism-related and presenteeism-related productivity loss (Cocker, Martin & Sanderson, 2012).

According to the findings above, 348 employees were on ARV treatment. If antiretroviral (ARV) drug side effects occurs in 60% of patients (“Antiretroviral Drug Side Effects,” n.d.), then it is probably that 208 of these employees will be booked off sick. Based on the findings of this study, the cost of sick leave per employee will be R733.14 per year (i.e. R152, 495 divided by 208 employees).

The National Department of Health reported that 1 out 4 (25%) of the population has been infected with HIV (Epidemiology & Surveillance National Department of Health, 2011). In the Census 2011 report, eThekweni had 956,713 employed individuals (Statistics South Africa, 2011). If the same incidence rate is applied to this number of employed individuals, I would therefore argue that 239,178 employees (i.e. 956,753 multiplied by 25%) will be infected with HIV. Therefore, as mentioned earlier on, 60% (143,506 employees on ARV’s) would get sick due to ARV’s side effects (“Antiretroviral Drug Side Effects,” n.d.). The estimated cost of sick leave pay for the eThekweni business would therefore be R105 billion per year (i.e. R733.14 multiplied by 143,506 employees on ARV’s).

Depending on the extent of HIV/AIDS-infected employees per organisation and the number of employees who were enrolled on ARV's, the sick leave would, therefore have had a significant impact on the profitability of the business and the economy of the businesses in the eThekweni region because KwaZulu-Natal has the highest HIV/AIDS incidence (Dhlomo, 2010).

5.2.2.5 Costs of Lay-offs Associated with HIV/AIDS

This topic discusses the findings associated with question 15 of the questionnaire. The term 'layoffs' referred to job loss due to downsizing of human capital in order to improve profitability of the business (Todd & Nordstrom, 2012). However, in this study lay-offs referred to job loss caused by poor health whereby the employee has been deemed to be unproductive. These lay-offs prevented presenteeism-related productivity loss, whereby the employee comes to work even when he/she was sick and perform sub-optimally (Cocker *et al.*, 2012).

This study has found that out of a total 13 organisations, the average cost of lay-offs amounted to R149, 996 for the 7 organisations that responded to this question. I would therefore argue that, by looking at the number of businesses in the eThekweni region, that the magnitude of lay-offs would have a significant impact on eThekweni businesses and the economy of KwaZulu-Natal as a whole. The R105 billion losses mentioned previously as sick leave pay, would also force organisations to lay-off HIV/AIDS chronically ill employees in order to maximise profitability.

Costs of layoffs may be direct costs and outplacement. However, Pfeffer (2010) noted that other costs "were intuitive, such as the toll on the morale and productivity as anxiety ("Will I be next") infects the remaining workers" (Pfeffer, 2010). This eventually leads to customer service, innovation and productivity to fall in the face of a smaller and demoralised workforce.

The impact of layoffs in organisations can be exemplified by what happened to Circuit City in the United States of America. Circuit City, the electronics retailer had decided that in order to cut its costs “it needed to get rid of its 3,400 highest-paid” and effective sales associates. Their action allowed competitors such as Best Buy to gain ground as fewer people with fewer skills in the Circuit City stores remained behind. Once the death spiral started, it was hard to stop and as a result of layoffs, Circuit City had to close its doors due to bankruptcy in 2008 (Pfeffer, 2010).

It is evident from the findings that layoffs do have an impact on organisations in the form of skills drain. However, Todd & Nordstrom (2012), could not find any evidence that layoffs or downsizing led to improvement of the financial position of the organisation (Todd & Nordstrom, 2012). Pfeffer (2010), concurred with this notion (Pfeffer, 2010).

5.2.3 Loss of Productivity Due to Absenteeism Caused by HIV/AIDS-Related Matters

The findings from questions 9, 12, 14 and 11 are used to discuss the broad heading of the loss of productivity due to absenteeism caused by HIV/AIDS-Related matters. These questions covered the introduction of automation or machinery, the average man days lost due to HIV/AIDS, the number of employees who were laid-off and negative impact of HIV/AIDS on businesses, respectively and is discussed in that order.

5.2.3.1 Introduction of Automation/Machinery

There was unanimous agreement 13 (92.85%) of the organisations that agreed to the introduction of automation in order to reduce dependency on the labour force and circumvent the impact of HIV/AIDS on their businesses.

There are many reasons why employers and organisations look at automation and machinery. Some employers look at cutting costs and increase profitability, some look at efficiency and others are challenged by lack of human resources or skills. In order to increase efficiency and safety some businesses looked at automation thereby reducing human involvement (Lee & Seppelt, 2009). However, as the role of people became more, not less, important as automation became more powerful and prevalent this approval led to disappointment (Lee & Seppelt, 2009).

In other work environments, Levy (2010), established that some workplace tasks are faster and less expensive than people when computers are used (Levy, 2010). However, it has been found to be also true that computers are much weaker than people in performing other tasks (Levy, 2010). In my view human capital and computers (automation) has to be balanced in order to reap more benefits from both systems. Depending entirely, on one system (computers) or the other (human capital) will be a dangerous practice.

In the unlikely event that there is lack of human capital or skills for the task, automation and innovation will be the answer. According to Billingsley (2009), Australia had a shortage of human assistance for farmers. Therefore, farmers had to introduce robotic systems that could do the same tasks as people. The benefits of automation were that agricultural production costs were brought down, thus reducing the price of agricultural products and the cost of manpower.

Therefore in my view, the impact of high absenteeism caused by HIV/AIDS-related illnesses, which results in high labour costs could be solved by the introduction of automation or machinery. Automation could therefore reduce dependency on the labour force, increase efficiency, reduce productivity costs and benefit the consumer in terms of reduced cost of goods or services (Billingsley, 2009; Levy, 2010).

5.2.3.2 Average Man Days Lost Due to HIV/AIDS

Man days lost, as addressed by question 12 of the questionnaire, has an impact on the cost of human capital and production losses in organisations. When employees fail to come to work because of HIV/AIDS-related illnesses, the organisation's productivity will be reduced (Gow, George & Grant, 2012). In order to keep productivity at the required level, employers would have to introduce longer shifts or employ temporary workers who had to be paid a higher rate than permanent employees. In addition to these expenses, the employee on paid sick leave has to be paid their normal rate even though he/she did not come to work.

This study found that the average number of man days lost were as follows:

Table 5.6: Man days lost due to HIV/AIDS infections				
What is the average man days lost in the last 12 months due to HIV/AIDS infections?				
Man days lost	Aver. Number of Man days lost	No. of Organisations	Total Aver. Number of Man days lost	Percentage
1-10	5.5	2	11	15.38%
11-20	15.5	3	46.5	23.08%
21-30	25.5	2	51	15.38%
31-40	35.5	1	35.5	7.7%
More than 40	40	5	200	38.46%
Total		13	344	100%

The combined 344 average number of man days were lost by 13 organisations and this averaged out to 26 man days lost per organisation.

5.2.3.3 Number of Employees Who Had Been Laid Off

According to question 14 of the questionnaire, 7 organisations (53.85%) had to lay-off on average, 93 employees due to HIV/AIDS-related illnesses, whilst the other 6 (46.15%) did not lay-off any employees. Thus one could argue that, 46.15% of the organisations learnt to manage the impact of HIV/AIDS on their businesses by, for instance, ensuring that their employees HIV status is known early enough so that the employees were enrolled onto the ARV programme at an early stage.

Management of the impact of HIV/AIDS in the workplace can be facilitated by having highly participatory and meaningful workshops around HIV and AIDS in the workplace (Smith & Project Empower, 2010). According to Smith & Project Empower (2010), facilitation of HIV/AIDS workshops in the workplace had yielded sustainable and positive results in developing workplace responses to HIV and AIDS. Sound workplace HIV/AIDS policies ensured productive and supportive environment and ultimately ensured the organisation's survival (Smith & Project Empower, 2010).

Success of HIV/AIDS workplace policies also depended on the willingness and the buy-in of employees in embracing the policy (Soko, Umar, Noniwa & Lakudzala, 2012). In addition, its success depended also on the existence of tripartism. According to Rogers *et al.*, (2010) this meant the involvement of business, labour and government to implement and “advance HIV/AIDS workplace policies and programs at the national, provincial and enterprise levels” (Rogers, Adetoro, Burke, Llado & Lukyanova, 2010).

The importance of workplace health policies in promoting a healthy workplace had benefits for both employers and the employees. Employer's benefits from a healthy workforce were improvement in the work performance and productivity, improvement in company image and employee retention, improvement in employee engagement and relationships, reduced absenteeism and sick leave and reduced worker's compensation costs (Mitchell, Eden, Cramp, Jayewardene, King & St George, 2012).

According to Michell *et al.*, (2012) the benefits for employees were found to be “a healthier lifestyle, increased health awareness and knowledge, increased job satisfaction and morale, supportive work environment and reduced risk of chronic disease” (Mitchell *et al.*, 2012).

5.2.3.4 The Negative Impact of HIV/AIDS in Organisations

The findings on the negative impact of HIV/AIDS in organisations in question 11 of the questionnaire are discussed under this topic. Twelve (92.31%) organisations were in agreement when asked about the negative impact of HIV/AIDS on their organisations (Table 5.7).

Table 5.7: The negative impact of HIV/AIDS –Related illnesses on productivity		
HIV/AIDS-related illnesses have/had a negative impact on the organisation's productivity.		
Response	No. of Organisations	Percentage
Strongly Agree	8	61.54%
Agree	4	30.77%
Disagree	1	7.69%
Strongly Disagree	0	0%
Total	13	100%

A number of literature sources supported the notion that HIV/AIDS had negative impacts on individuals, families, businesses, government and globally (Dixon, McDonald & Roberts, 2010; Lovász & Schipp, 2009; Surgevil & Akyol, 2011; Winskell, Hill & Obyerodhyambo, 2011), to mention but a few. This study, though, looked at the negative impact of HIV/AIDS-related illnesses on organisations or businesses.

The negative impacts of HIV/AIDS-related illnesses on organisations had manifested themselves in the death of a number of HIV/AIDS-infected employees. Deaths due to HIV/AIDS-related illnesses had resulted in financial stresses on the organisations. Additional costs of recruiting and training new employees cost of lay-offs, sick leave pay outs, loss of productivity and introduction of machinery or automation had a negative impact on the employers and their organisation.

5.3 Summary

The findings of this study indicates that HIV/AIDS and HIV/AIDS-related illnesses had an impact on employee deaths, cost of antiretroviral treatment, recruitment and training costs, cost of machines or automation, sick leave and man days lost and the cost of employee lay-offs. Organisations have lost manpower and skills through HIV/AIDS-related illnesses and suffered additional costs of acquiring ARV treatment. Employees that failed to respond to ARV treatment had to be laid-off. HIV/AIDS-related illnesses and deaths had resulted in recruitment and training of new employees. The recruitment and training of new employees became another financial burden on the organisations that were affected through loss of productivity whilst employees were being trained.

The costs of lay-offs had a devastating effect on organisations. Those organisations that thought that lay-offs would improve profits were in for a big shock when they realised that lay-offs cost organisations more in terms of skill losses and also financial losses. Organisations that were adversely affected by HIV/AIDS had to come up with strategies such as acquisition of machines or the introduction of automation in order to reduce dependency on the labour force.

Although introduction of automation improved efficiency and production, it also came at a hefty cost and not every organisation could afford automation. It was also found that organisations cannot rely entirely on automation since computers cannot do some of the tasks that humans can accomplish. Chapter six presents and discusses the conclusions and recommendations of the study.

CHAPTER SIX

Conclusions and Recommendations

6.1 Introduction

This study explored the impact of HIV/AIDS on eThekweni Businesses. The study tried to establish the number of employers who were aware of the impact of HIV/AIDS on their businesses, the impact of HIV/AIDS on employees as a result of HIV/AIDS-related sicknesses and deaths, the advantages and disadvantages of enrolling employees onto the ARV treatment programme at an early stage of being diagnosed with HIV/AIDS. The cost implications to employers caused by absenteeism, presenteeism, lay-offs, recruitment and training, automation strategies in order to reduce dependency of the labour force and the overall impact of HIV/AIDS on productivity of businesses and subsequent impact on the economy of the eThekweni region and the KwaZulu-Natal province as a whole, was looked at. The study also revealed some challenges that employers and employees faced around the issue of divulging the HIV status of the employee which had implications on employee's future employability and stigmatisation in the workplace.

The involvement of employers, labour unions and employees (tripartism) was found to be the solution to successful implementation of the workplace HIV/AIDS policies, reduction of HIV/AIDS stigma and the prevention of employer's malpractices such as termination of employment once the employer has established that the employee is HIV positive.

6.2 Findings

The findings of the study are discussed under the following objectives:

- Objective One: The Impact HIV/AIDS-related deaths in organisations
- Objective Two: The Cost implications of HIV/AIDS-related deaths to the organisations
- Objective Three: The Loss of productivity due to absenteeism and presenteeism caused by HIV/AIDS-related sicknesses and deaths

6.2.1 Objective One

Findings: The majority (69.44%) of employers were not aware of the number of HIV/AIDS infected employees in their organisations. Some of the challenges that employers were faced with were the lack of clear workplace HIV/AIDS policies and guidance. Workplace HIV/AIDS stigma was found to be another stumbling block which prevented employees from revealing their HIV/AIDS status to the employer. The biggest fear was stigmatisation and at times fear of being dismissed because of one's HIV status (Wilson, 2012).

The study also found that the key to addressing the issue of HIV/AIDS in the workplace lies in many stakeholders including private sector companies, government and labour, taking responsibility for addressing the issue of HIV/AIDS. The International Labour Organisation (ILO) and World Health Organisation (WHO) had jointly developed policy guidelines for improving health worker's access to HIV and TB prevention, treatment, care and support services that employers can implement in their workplace in order to reduce the impact of HIV/AIDS in their organisations (Kisting, Wilburn, Protsiv & Hsu, 2010). There are a number of literatures that support this idea.

The study found that out of 94.44% of the organisations that enrolled their employees onto the ARV programme, a small number (22.22%) of organisations did not experience deaths due to HIV/AIDS in their organisations. The study showed that the causes of such high ARV failure rate could be attributed to HIV/AIDS stigma, fear of dismissal from work and hence ARV adherence and ARV drug resistance problems.

Conclusion: The elimination of workplace HIV/AIDS stigma would ensure that employees who are HIV positive enrol onto the ARV programme and a number of HIV/AIDS-related deaths would be prevented. The success rate of the ARV programme depended on the elimination of HIV/AIDS stigma thus avoiding ARV adherence problems and ARV drug resistance (Danel *et al.*, 2009; Natsuo, 2010; Peltzer, Friend-du Preez, Ramlagan & Anderson, 2010).

Recommendations: In order to encourage employees to divulge their HIV status, it is recommended that employers use the diversity management theory. Diversity management theory involves a complex, systematic and planned strategies and commitment that are implemented in order to encourage employers, employees and customers in the workplace to learn to tolerate, respect and treat fairly those employees who are HIV positive (Yap & Ineson, 2012).

6.2.2 Objective Two

Findings: The study found that lack of foresight to the impact of HIV/AIDS by employers has cost implications. The study revealed that additional costs that overburdened organisations because of their oversight on the impact of HIV/AIDS on their organisations, impacted heavily on their bottom line and sustainability of their businesses. Costs that could be avoided or minimised were identified as the costs of recruitment and training, costs of automation or machinery and costs of sick leave pay and lay-offs. All of these costs were caused by HIV/AIDS-related sicknesses and deaths.

Secondly, the study found that the majority (66.67%) of the organisations recruited new employees in order to replace those that had died due to HIV/AIDS-related illnesses. There were cost implications of recruiting and training and these became an additional financial burden on the organisations and it affected the bottom line even further (Blatter, Mühlemann & Schenker, 2009).

There was unanimous agreement (92.85%) from organisations that the introduction of automation or machinery reduced dependency on the labour force. Although introduction of automation or machinery in the workplace can increase efficiency and improve productivity with minimal number of employees, this practice came at a big cost that sometimes outweighed the benefits (Parker-Bates & Hill, 2010). It has been proven also, that depending on the type of industry or environment, there is no guarantee that automation or machinery could reduce dependency on the labour force (Parasuraman & Wickens, 2008).

In addition to the cost of automation and machinery, the study also found that sick leave pay and costs of lay-offs caused additional financial burdens on organisations that crippled productivity and the bottom line. The study found that the cost of sick leave pay alone amounted to R105 billion for the organisations in the eThekweni region.

Conclusion: The recruitment and training costs could have been avoided or minimised if organisations had implemented workplace HIV/AIDS policies and strategies to deal with the issue of HIV/AIDS. Although training costs cannot be eliminated, E-Recruitment methods were found to be more cost-effective and this method reduced administration burden when recruiting new employees (Agarwal, 2013).

Recommendations: These costs can be avoided by simply ensuring that effective workplace HIV/AIDS policies are implemented by organisations in their workplaces.

6.2.3 Objective Three

Findings: The study established that the average man days lost and lay-offs as a result of HIV/AIDS-related issues had a negative impact on the organisations and businesses. The average 26 man days lost per organisation found by the study equates to one month of the employee's salary which has to be paid even though the employee did not work.

Conclusion: Man days lost had an impact on the cost of human capital and on the productivity of the organisation (Gow, George & Grant, 2012).

Recommendations: Sound workplace HIV/AIDS policies would ensure productive and supportive environment and ultimately ensured the organisation's survival, thus avoiding man days lost and productivity loss in organisations (Smith & Project Empower, 2010).

6.3 Implications of this Research

HIV/AIDS has a negative impact on businesses, employees, families and government, both locally and globally (Lovász & Schipp, 2009). The study had shown the importance of implementing sound workplace HIV/AIDS policies in order to deal with early diagnosis of HIV/AIDS, removal of HIV/AIDS stigma and enrolment of employees on ARV treatment at an early stage.

The study implied that organisations could reduce the impact of HIV/AIDS on their productivity and bottom lines and thus increase the economy of the eThekweni region and of KwaZulu-Natal as a whole, by being aware of the number of employees who are HIV positive in their organisations and enrol them onto the ARV programme. If organisations follow the recommendations made in this study, organisations would reduce employee HIV/AIDS-related deaths and avoid additional costs such as recruitment and training of new employees to replace the ones that had died due to HIV/AIDS, cost of sick leave pay and lay-offs, costs of automation or machinery and avoid the negative impact of HIV/AIDS on eThekweni business and the negative impact on the economy of the KwaZulu-Natal province.

6.4 Suggestions for Further Research

Future research on similar studies could yield statistically significant information if it were to focus on specific industry or sector. Gaining access to human resource departments of the selected industry or sector and employing data mining techniques, could reveal valuable data for studies on the impact of HIV/AIDS on businesses. In addition, a qualitative study could yield more depth in terms of providing reasons for respondent's responses.

6.5 General Recommendations

The current study looked at a homogenous population and sample of the organisations in the eThekweni region, in KwaZulu-Natal. Based on the findings of this study, it is recommended that organisations or businesses in the eThekweni region follow these recommendations in order to minimise the impact of HIV/AIDS on their businesses.

- Familiarise themselves with the International Labour Organisation (ILO) and World Health Organisation (WHO) policy guidelines for improving health worker's access to HIV and TB prevention, treatment, care and support services.
- Design organisation's specific workplace HIV/AIDS policies.
- Facilitate highly participatory and meaningful workshops around HIV and AIDS in the workplace.
- Strengthen organisation's Employee Assistance Programs.
- Involve Labour Unions in implementation of workplace HIV/AIDS policies in order to get buy-in from employees.
- Implement the Diversity Management Theory in order to instil tolerance, respect and fair treatment of HIV positive employees by employees, employers and customers (Yap & Ineson, 2012).
- Organisations take the responsibility for addressing the issue of HIV and AIDS.
- Monitor sick leave patterns of individual employees and intervene on time to establish prompt diagnosis of illnesses or problems that might impact on employees and the business.
- Identify presenteeism immediately in order to avoid the subpar performance and also to safeguard against workplace injuries.
- Maintain HIV/AIDS confidentiality in the workplace.

6.6 Summary

The data generated in this study indicated the existence of the impact of HIV/AIDS on eThekweni Businesses and the economy of KwaZulu-Natal. The data that was collected indicated that the majority of employers in the eThekweni region were not aware of the number of HIV/AIDS-infected employees in their organisations. This was confirmed by responses and the increased number of HIV/AIDS-related sicknesses and deaths. This raised a possibility that most employers do not have workplace HIV/AIDS policies or that organisations regarded HIV/AIDS to be irrelevant to their companies.

The 60% of HIV/AIDS positive employees who are on ARV's would be affected by ARV's side effects, which would result in R105 billion lost due to sick leave pay in the eThekweni region. The loss of R105 billion is proof that the economy of KwaZulu-Natal was affected because eThekweni is the economic hub of KZN. The number of sick leave days and man days lost as a result of HIV/AIDS-related illnesses showed the impact of HIV/AIDS-related illnesses on the productivity of the affected businesses. The 40% of employees who are on ARV's but are not affected by ARV's side effects, might equally be off from work more often and even less productive due to the setting in of opportunistic infections such as TB or other diseases (Barnett & Whiteside, n.d.).

The Impact of HIV/AIDS on eThekweni businesses is a quantitative study that focussed on the population size of 382 with a confidence level of 95% and the margin of error of 5%. Because of the limitations encountered in this study, such as time constraints, it was a small scale study with 64 respondents. Although more than 30 people were sampled, the research is not statistically perfect. Nonetheless, the research is worth taking note of. By carefully implementing the recommendations and monitoring the implementation process other organisations could benefit from this research. In addition should this study be replicated similar findings should be made, as this study was conducted objectively and scientifically.

In conclusion as all three research objectives were researched and suitable recommendations have been proposed it is argued that careful implementation of the recommendations made in this research and monitoring the implementation process could result in HIV/AIDS programmes in the workplace that will be of value to other organisations. Should this study be replicated similar findings could be made.

BIBLIOGRAPHY

- Anon. (n.d.) Graduate School of Business and Leadership. [Online] [Accessed April 7, 2013b]. Available at: <http://gsbl.ukzn.ac.za/Programmes/Masters/MBA.aspx>
- Anon.(n.d.) Antiretroviral Drug Side Effects [Online] [Accessed May 16, 2013a] Available from: <http://www.avert.org/aids-drug-side-effects.htm>
- Adriaenssens, S. & Hendrickx, J. (2012) Sex, price and preferences: accounting for unsafe sexual practices in prostitution markets. *Journal of Sociology of health illness*, Vol. 34, no. 5, pp.665-680.
- Atilola, G.O., Akpa, O.M. & Komolafe, I.O.O. (2010) HIV/AIDS and the long-distance truck drivers in south-west Nigeria: a cross-sectional survey on the knowledge, attitude, risk behaviour and beliefs of truckers. *Journal of infection and public health*, Vol. 3, no. 4, pp.166–178.
- Ayiro, L.P. (2010) The role of social entrepreneurship in HIV/AIDS management across the education sector in Kenya. *Journal of European Industrial Training*, Vol. 34, no. 2, pp.167–182.
- Bachelet, M. (2011) Sharing Innovative Experiences. *Successful Social Protection Floor Experiences*, Vol. 18, pp.363–384.
- Bakuwa, R. (2010) Adoption of formal HIV and AIDS workplace policies: an analysis of industry/sector variations. *Journal of Social Aspects of HIVAIDS Research Alliance*, Vol. 7 no.4, pp.2–9.
- Bansi, L., Sabin, C., Delpech, V., Hill, T., Fisher, M., Walsh, J., Chadborn, T., Easterbrook, P., Gilson, R., Johnson, M., Porter, K., Anderson, J., Gompels, M., Leen, C., Ainsworth, J., Orkin, C., Nelson, M., Rice, B. & Phillips, A. (2010) Trends over calendar time in antiretroviral treatment success and failure in HIV clinic populations. *HIV Medicine*, Vol. 1, no. 7, pp.432–438.

- Barnett, T. & Whiteside, A. (n.d.) *Guidelines for Preparation and Execution of Studies of the Social and Economic Impact of HIV / AIDS*
- Beard, J., Feeley, F. & Rosen, S. (2009) Economic and quality of life outcomes of antiretroviral therapy for HIV/AIDS in developing countries: a systematic literature review. *AIDS Care*, Vol. 21, no. 11, pp.1343–1356.
- Beegle, K., De Weerd, J. & Dercon, S. (2009) The intergenerational impact of the African orphans crisis: a cohort study from an HIV/AIDS affected area. *International Journal of Epidemiology*, Vol. 38, no. 2, pp.561–568.
- Billingsley, J. (2009) Automation and the Farmer. *Agricultural Technology in a Changing Climate*. Brisbane, Australia, pp. 13–16.
- Birch, D. (2008) Ten principles of corporate citizenship. *Social Responsibility Journal*, Vol. 4, no. 1&2, pp.129–135.
- Blatter, M., Mühlemann, S. & Schenker, S. (2009) The Costs of Hiring Skilled Workers. *The Swiss Leading House*, Vol. 15.
- Bloom, D.E. & Glied, S. (2010) Articles Benefits and Costs of HIV Testing. *Science*, Vol. 252, no. 5014, pp.1798–1804.
- Bloss, R. (2012) Automated packaging is a big hit at PackExpo. *Assembly Automation*, Vol. 32, no. 2, pp.119–123.
- Bloss, R. (2013) Automation pushes the envelope of postal mail handling efficiency. *Assembly Automation*, Vol. 33, no. 1, pp.3–7.
- Bor, J. (2012) HIV Treatment and Labor Supply in Rural South Africa. *Health Affairs*, Vol. 31, pp.1–51.
- Brands, R. (2010) New ILO standard on HIV rejects discrimination against HIV-positive workers. *HIVAIDS policy law review Canadian HIV/AIDS Legal Network*, Vol. 15, no. 1, pp.58–59.

- Breaugh, J.A. (2013) Employee recruitment. *Annual review of psychology*, Vol. 64, pp.389–416.
- BU Digital Common. (2010) Shifting the Burden of HIV/AIDS.[Online][Accessed March 4, 2013]. Available at: <http://dcommon.bu.edu/xmlui/handle/2144/1296>
- Caldwell, J.C., Caldwell, P. & Quiggin, P. (2010) The Social Context of AIDS in sub-Saharan Africa. *Population and Development Review*, Vol. 15, no. 2, pp.185–234.
- Campbell, C., Skovdal, M., Mupambireyi, Z. & Gregson, S. (2010) Exploring children's stigmatisation of AIDS-affected children in Zimbabwe through drawings and stories. *Social science & medicine*, Vol. 71, no. 5, pp.975–85.
- Cancelliere, C., Cassidy, J.D., Ammendolia, C. & Côté, P. (2011) Are workplace health promotion programs effective at improving presenteeism in workers? A systematic review and best evidence synthesis of the literature. *BMC Public Health*, Vol. 11, no. 1, p.395.
- Case, A., Garrib, A., Menendez, A., and Olgati, A. (2008) Paying the Piper: The High Cost of Funerals in South Africa. National Bureau of Economic Research.
- Casselmann, L. (2012) A Strategic Dose of Wellness. *Benefits Canada*, Vol. 3, pp.10–16.
- Chigwenya, Average; Chuma, Maxwell and Takupiwa, N. (2008) Trapped in the vicious circle: An Analysis of the Sustainability of the Child-Headed Households in ward 30, GUTU District. *Journal of Sustainable Development in Africa*, Vol. 10, no. 3.
- Chitiyo, G. & Chitiyo, M. (2009) The Impact of the HIV/AIDS and Economic Crises on Orphans and Other Vulnerable Children in Zimbabwe. *Childhood Education*, Vol. 85, no. 6, pp.347–351.

- Christiansen, C. (2010) The Social Context of HIV / AIDS in Africa. *African Journal of Aids Research*.
- Cluver, L., Operario, D., Lane, T. & Kganakga, M. (2011) “I Can’t Go to School and Leave Her in So Much Pain”: Educational Shortfalls Among Adolescent “Young Carers” in the South African AIDS Epidemic. *Journal Of Adolescent Research*.
- Cluver, L.D., Orkin, M., Boyes, M.E., Gardner, F. & Nikelo, J. (2012) AIDS-Orphanhood and Caregiver HIV/AIDS Sickness Status: Effects on Psychological Symptoms in South African Youth. *Journal of Pediatric Psychology*.
- Cocker, F., Martin, A. & Sanderson, K. (2012) Managerial understanding of presenteeism and its economic impact. *International Journal of Workplace Health Management*, Vol. 5, no. 2, pp.76–87.
- Council for Medical Schemes (2007) The South African ICD-10 Coding Standards, Version 1.06
- Dale-Olsen, H. (2012) Sickness absence, performance pay and teams. *International Journal of Manpower*, Vol. 33, no. 3, pp.284–300.
- Danel, C., Gabillard, D., Inwoley, A., Chaix, M.L., Toni, T.D., Moh, R., Messou, E., Bissagnene, E., Salamon, R., Eholie, S. & Anglaret, X. (2009) Medium-term probability of success of antiretroviral treatment after early warning signs of treatment failure in West African adults. *AIDS Research and Human Retroviruses*, Vol. 25, no. 8, pp.783–793.
- Davison, H. & Griffiths, J. (2010) Health promotion: awarding good practice. *Perspectives in public health*, Vol. 130, no. 3, pp.115–117.

- De Beer, I., Coutinho, H., Van Wyk, P., Gaeb, E., De Wit, T.R. & Van Vugt, M. (2009) Anonymous HIV workplace surveys as an advocacy tool for affordable private health insurance in Namibia. *Journal of the International AIDS Society*, Vol. 12, no. 1, p.32.
- De Souza, R. (2009) Communication Perspectives on HIV/AIDS for the 21st Century. *Health Communication*, Vol. 24, no. 4, pp.378–380.
- Demerouti, E., Le Blanc, P.M., Bakker, A.B. & Schaufeli, W.B. & Hox, J. (2009) Present but sick: a three-wave study on job demands, presenteeism and burnout. *Career Development International*, Vol. 14, no. 1, pp.50–68.
- Department of Health (2011) *Epidemiological Comments: Progress on HIV Incidence Estimation Methods in South Africa*. [Online][Accessed June 3, 2013]. Available at: www.kznhealth.gov.za.
- Dew, K. & Taupo, T. (2009) The moral regulation of the workplace: presenteeism and public health. *Sociology of health illness*, Vol. 31, no. 7, pp.994–1010.
- Dew, K. (2012) Presenteeism and workplace health: Making the case for a validated “presenteeism index”. *Occupational Health at Work*, Vol. 8, no. 5, pp.17–19.
- Dhlomo, D.S. (2010) *KwaZulu-Natal Department of Health Strategic Plan 2010-2014*. Department of Health.[Online][Accessed July 16, 2012].Available at: <http://www.kznhealth.gov.za/stratplan2010-14.pdf>
- Dixon, S., Mcdonald, S. & Roberts, J. (2010) The Impact Of HIV And AIDS On Africa’s Economic Development. *British Medical Journal*, Vol. 324, no. 7331, pp.232–234.
- Durban Chamber of Commerce & Industry (n.d.) *Introduction to the Durban Chamber of Commerce*. [Online] [Accessed June 3, 2013]. Available at: http://www.durbanchamber.co.za/?page_id=907

- Eisinga, R., Grotenhuis, M. Te & Pelzer, B. (2012) The reliability of a two-item scale: Pearson, Cronbach, or Spearman-Brown? *International journal of public health*.
- Emad,G.R. (2010) Introduction of technology into workplace and the need for change in pedagogy. *Procedia Social and Behavioral Sciences*. pp. 875–879.
- eThekwini Municipality. (2011) *About eThekwini Municipality*. [Online][Accessed March 19, 2013] Available at: www.durban.gov.za
- Fahridin, S. & Miller, G. (2009) Management of HIV/AIDS. *Australian Family Physician*, Vol. 38, no. 8, p.573.
- Forette, F., Padovani, A., Berthet, K. & Knox, S. (2010) Implications of the Impact Survey for payors across Europe. *The journal of nutrition health aging*, Vol. 14, no. 7, pp.553–557.
- Foster, G., Makufa, C., Drew, R. & Kravolec, E. (2011) Factors leading to the establishment of child-headed households: the case of Zimbabwe. *Health Transition Review*, Vol. 7, pp.155–168.
- Fuster, M., Estrada, V., Fernandez-Pinilla, M.C., Fuentes-Ferrer, M.E., Tellez, M.J., Vergas, J., Serrano-Villar, S. & Fernandez-Cruz, A. (2009) Smoking cessation in HIV patients: rate of success and associated factors. *HIV Medicine*, Vol. 10, no. 10, pp.614–619.
- Galindo, G.R. (2013) A loss of moral experience: understanding HIV-related stigma in the New York City House and Ball Community. *American journal of public health*, Vol. 103, no. 2, pp.293–9.
- Gamkrelidze, A. (2008) World Health Organization's HIV/AIDS policy and Georgia. *Georgian Medical News*, Vol 165, pp.66–71.

- George, G., Atujuna, M., Gentile, J., Quinlan, T., Schmidt, E., Tobi, P. & Renton, A. (2010) The impact of ARV scale upon health workers: evidence from two South African districts. *AIDS Care*, Vol. 22 Suppl 1, pp.77–84.
- Gideon, L. (2012) *Handbook of Survey Methodology for the Social Sciences*. New York, USA: Springer New York.
- Global Business Coalition.(n.d.) *HIV / AIDS Workplace Policies*. [Online][Accessed January 10, 2011] Available at: <http://www.gbcimpact.org>
- Goudge, J., Ngoma, B., Manderson, L. & Schneider, H. (2009) Stigma, identity and resistance among people living with HIV in South Africa. *Journal of Social Aspects of HIV/AIDS Research Alliance*, Vol. 6, no. 3, pp.94–104.
- Gow, J & Grant, B. (2010) Human-resources strategies for managing HIV/AIDS: the case of the South African forestry industry. *African Journal of Aids Research*, Vol. 9, no. 3, pp.285–295.
- Gow, J., George, G. & Grant, B. (2012) Managing the costs of HIV / AIDS : A case study of a South African contract cleaning company. *Development Southern Africa*, Vol. 29, no. 3, pp.37–41.
- Gray, L., Ferrer, S. & Ortmann, G. (2009) KwaZulu-Natal commercial farmers' perceptions of and management responses to HIV/AIDS. *African Journal of Aids Research*, Vol. 8, no. 2, pp.147–156.
- Greenberg, A.E., Hader, S.L., Masur, H., Young, A.T., Skillicorn, J. & Dieffenbach, C.W. (2009) Fighting HIV/AIDS in Washington, D.C. (Meeting HIV/AIDS costs; fighting neglected diseases.) *Health Affairs*, Vol. 28, no. 6, pp.1677–1687.
- Grimm, M. (2010) Mortality Shocks and Survivors' Consumption Growth. *Oxford Bulletin of Economics and Statistics*, Vol. 72, no. 2, pp.146–171.

- Gross, R., Elhaynay, A., Friedman, N. & Buetow, S. (2008) Pay-for-performance programs in Israeli sick funds. *Journal of Health Organisation and Management*, Vol. 22, no. 1, pp.23–35.
- Guion, L.A., Diehl, D.C. & McDonald, D. (2011) Triangulation: Establishing the Validity of Qualitative Studies. University of Florida.
- Habyarimana, J., Mbakile, B. & Pop-Eleches, C. (2010) The Impact of HIV / AIDS and ARV Treatment on Worker Absenteeism : Implications for African Firms. *Journal of Human Resources*, Vol. 45, no. 4, pp.809–839.
- Hancock, P.A., Jagacinski, R.J., Parasuraman, R., Wickens, C.D., Wilson, G.F. & Kaber, D.B. (2013) Human-Automation Interaction Research: Past, Present and Future. *Ergonomics in Design The Quarterly of Human Factors Applications*, Vol. 21, no. 2, pp.9–14.
- Hansen, K. (2010) A Plague's Bottom Line. *Foreign Policy*, Vol. 137, no. 137, pp.26–27.
- Harrison, D. (2010) An Overview of Health and Health care in South Africa 1994 – 2010: Priorities, Progress and Prospects for New Gains, December 2009.
- Health Economics and HIV/AIDS Research Division. (2011) *Investigating linkages between HIV / AIDS , Economic Globalization , Growth and Vulnerability : Stimulating , Supporting and Synthesizing New Insights Final Project Report*. [Online][Accessed May 20, 2013]. Available at: www.ukzn.ac.za
- Herbst, A.J., Cooke, G., Bärnighausen, T., KanyKany, A., Tanser, F. & Newell, M/L. (2009) Adult mortality and antiretroviral treatment roll-out in rural KwaZulu-Natal, South Africa. *Bulletin of the World Health Organization*, Vol. 87, no. 10, pp.754–762.

- Hirbod, S. & Lindqvist, C. (2011) *Improving health promotional workplace programs: A study of HIV / AIDS workplace programs in Kenya*. Masters Degree. University of Linköping.
- Hirschhorn, L.R., Landers, S., McInnes, D.K., Malitz, F., Ding, L., Joyce, R. & Cleary, P.D. (2009) Reported care quality in federal Ryan White HIV/AIDS Program supported networks of HIV/AIDS care. *AIDS Care*, Vol. 21, no. 6, pp.799–807.
- HIV/AIDS and STD Directorate. (n.d) *HIV/AIDS POLICY GUIDELINES: Testing for HIV*. [Online][Accessed April 4, 2013]. Available at:www.kznhealth.gov.za/HIVtesting.pdf
- Hodge, D. (2009) Growth, Employment and Unemployment in South Africa. *South African Journal of Economics*, Vol. 77,December, pp.488–504. Available at: <http://doi.wiley.com/10.1111/j.1813-6982.2009.01226.x>.
- Hoe, J. & Hoare, Z. (2012) Understanding quantitative research: part 1. *Nursing standard Royal College of Nursing Great Britain 1987*, Vol, 27, no. 15-17, pp.52–58.
- International HIV & AIDS Charity.(n.d.) *AVERTing HIV and AIDS*. [Online] [Accessed March 4, 2013a]. Available at: <http://www.avert.org/safricastats.htm>.
- International HIV & AIDS Charity.(n.d.) *The Impact of HIV & AIDS in Africa*. [Online] [Accessed July 30, 2011b]. Available at: <http://www.avert.org/aids-impact-africa.htm>
- Jack, W. and Lewis, M. (2009) Health Investments and Economic Growth Macroeconomic Evidence and Microeconomic Foundations: Policy Research Working Paper 4877.

- Jacobsen, G. (2009) Health and Death Risk and Income Decisions: Evidence from Microfinance. *Journal of Development Studies*, Vol. 45, no. 6, pp.934–946.
- Jürgensen, M., Sandoy, I.F., Michelo, C. & Fylkesnes, K. (2013) Effects of home-based Voluntary Counselling and Testing on HIV-related stigma: Findings from a cluster-randomized trial in Zambia. *Social science & medicine*, Vol. 81, pp.18–25.
- Jürgensen, M., Tuba, M., Fylkesnes, K. & Blystad, A. (2012) The burden of knowing: balancing benefits and barriers in HIV testing decisions. A qualitative study from Zambia. *BMC Health Services Research*, Vol. 12, no. 1, p.2.
- Karren, R. (2012) Introduction to the special issue on job loss. *Journal of Managerial Psychology*, Vol. 27, no. 8, pp.772–779.
- Keech, M. & Beardsworth, P. (2008) The impact of influenza on working days lost: a review of the literature. *PharmacoEconomics*, Vol. 26, no.11, pp.911–924.
- Kelly, K. & Donk, M. (2009) 'Local-Level Responses to HIV/AIDS in South Africa'. In Rohleder, P., Swartz, L., Kalichman, S. & Simbayi, L.C.(eds) *HIVAIDS in South Africa 25 Years On Psychosocial Perspectives*. Springer New York, p. 135.
- Kiertiburanakul, S. & Sungkanuparph, S. (2009) Emerging of HIV drug resistance: epidemiology, diagnosis, treatment and prevention. *Current HIV Research*, Vol. 7, no. 3, pp.273–278.
- Kisting, S., Wilburn, S., Protsiv, M. & Hsu, L/N. (2010) Improving health workers' access to HIV and TB prevention, treatment, care and support services. *World hospitals and health services the official journal of the International Hospital Federation*, Vol. 46, no. 4, pp.34–35.

- Klausner, J.D., Serenata, C., O'Bra, H., Mattson, C.L., Brown, J.W., Wilson, M., Mbengashe, T. & Goldman, T.M. (2011) Scale-up and continuation of antiretroviral therapy in South African treatment programs, 2005-2009. *Journal of Acquired Immune Deficiency Syndromes*, Vol. 57, no. 3, p.e92.
- Kotz, D.A. (2011) Is Community-based participation a key instrument to addressing the plight of child-headed households in South Africa? *Commonwealth Youth and Development*, Vol. 9, no. 2, pp.35–49.
- Kumar, R.(2011) *Research Methodology: A Step-By-Step Guide for Beginners* 3rd ed., London: Sage Publications Ltd.
- Lagesse, R.A. (2011) Addressing AIDS in the workplace. *Journal of health care benefits*, Vol. 4, no. 1, pp.28–32.
- Lamb-White, J. (2012) WHO - Unparalleled global progress in HIV response but sustained investment vital. *International Journal of Health Care Quality Assurance*, Vol. 25, no. 3.
- Lee, J.D. & Seppelt, B.D. (2009) Human Factors in Automation Design Nof, S.Y. (ed). *Springer Handbook of Automation*, pp.417–436.
- Lewis, J. (2009) Redefining Quantitative Methods: Believability in the Fifth Moment. *International Journal of Quantitative Methods*, Vol. 8, no. 2.
- Levy, F. (2010) How Technology Changes Demands for Human Skills. *OECD Education Working Papers*, No. 45. OECD Publishing.
- Lewis, J. (2009) Redefining Qualitative Methods: Believability in the Fifth Moment. *International Journal of Qualitative Methods*, Vol. 8, no. 2, pp.1–14.
- Liu, L. (2011) Interpersonal Relationships and HIV/AIDS Stigma in China. *Interpersona: An International Journal on Personal Relationships*, Vol. 5, supp1, pp.75–92.

- Liu, X., Long, T. & Xue, C. (2012) A Study on Human Resources Management Based on System Dynamics. *Advances in Asian Social Science*, Vol. 3, no. 3, pp.680–685.
- Lovász, E. & Schipp, B. (2009) The Impact of Hiv/Aids on Economic Growth in Sub-Saharan Africa 1. *South African Journal of Economics*, Vol. 77, no. 2, pp.245–256.
- Lyons, M. (2010) The Impact of HIV and AIDS on Children , Families and Communities : Risks and Realities of Childhood during the HIV Epidemic. Issues Paper No.30, pp.1–8.
- MacGregor, J.N., Cunningham, J.B. & Caverley, N. (2008) Factors in absenteeism and presenteeism: life events and health events. *Management Research News*, Vol. 31, no. 8, pp.607–615.
- Madan, I. & Williams, S. (2010) A review of pre-employment health screening of NHS staff. TSO. London.
- Madden, C. (2009) Wincanton reduces sickness absence by 10,000 days: Collaborative approach to managing staff health and improving productivity and morale. *Human Resource Management International Digest*, Vol. 17, no. 1, pp.35–37.
- Makoe, L.N., Portillo, C.J., Uys, L.R., Dlamini, P.S., Greef, M., Chirwa, M., Kohi, T.W., Naidoo, J., Mullan, J., Wantland, D., Durrheim, K. & Holzemer, W.L. (2009) The impact of taking or not taking ARVs on HIV stigma as reported by persons living with HIV infection in five African countries. *AIDS Care*, Vol. 21, no. 11, pp.1357–1362.
- Makoe, L.N., Portillo, C.J., Uys, L.R., Dlamini, P.S., Greef, M., Chirwa, M., Kohi, T.W., Naidoo, J., Mullan, J., Wantland, D., Durrheim, K. & Holzemer, W.L. (2009) *AIDS Care*, Vol. 21, no. 11, pp.1357–1362.

- Mapisa-Nqakula, M.N. (2009) *Department of Correctional Services Strategic Plan 2009/10-2013/14*. [Online][Accessed April 23, 2013] Available at: <http://www.dcs.gov.za>
- Marchbank, C. (2009) Best of the Bunch: recruitment & selection. *People Management*, Vol. 15, no. 5, p.41.
- Martins, A. (2012) Restructuring, layoffs and litigation: form and substance in reporting operating income. *Journal of Human Resource Costing & Accounting*, Vol. 16, no. 1, pp.50–67.
- Marwitz, J. & Were-Okello, T. (2010) HIV/AIDS in the workplace: a case study from higher education. *African journal of economic and management studies*, Vol. 1, no. 2, pp.197–210.
- Mattson, D.J. & Clark, S.G. (2011) Human dignity in concept and practice. *Policy Sciences*, Vol. 44, no. 4, pp.303–319.
- Maughan-Brown, B. (2010) Stigma rises despite antiretroviral roll-out: a longitudinal analysis in South Africa. *Social science & medicine (1982)*, Vol. 70, no. 3, pp.368–74.
- Mcgarry, D.K. & Shackleton, C.M. (2009) Is HIV/AIDS jeopardizing biodiversity? *Environmental Conservation*, Vol. 36, no. 1, p.5.
- McMichael, A.J., Borrow, P., Tomaras, G.D., Goonetilleke, N. & Haynes, B.F. (2010) The immune response during acute HIV-1 infection: clues for vaccine development. *Nature Reviews Immunology*, Vol. 10, no. 1, pp.11–23.
- Merritt, S.M. (2011) Affective processes in human-automation interactions. *Human Factors*, Vol. 53, no. 4, pp.356–370.

- Messou, E., Gabillard, D., Moh, R., Inwoley, A., Sorho, E., Rouet, F., Seyler, C., Danel, C. & Anglaret, X. (2008) Anthropometric and immunological success of antiretroviral therapy and prediction of virological success in west African adults. *Bulletin of the World Health Organization*, Vol. 86, no. 6, pp.435–442.
- Michinobu, R. (2009) “HIV is irrelevant to our company”: everyday practices and the logic of relationships in HIV/AIDS management by Japanese multinational corporations in northern Thailand. *Social science medicine*, Vol. 68, no. 5, pp.941–948.
- Mitchell, J.A., Eden, B., Dunn, S., Cramp, J., Jayewardene, V., King, L. & St George, A. (2012) *Healthy Workplace Activities: At A Glance*. National Heart Foundation of Australia.
- Mogotlane, S.M., Chauke, M.E., Van Rensburg, G.H., Human, S.P. & Kganakga, C.M. (2010) A situational analysis of child-headed households in South Africa. *Curationis*, Vol. 33, no. 3, pp.24–32.
- Monjok, E., Smesny, A. & Essien, E.J. (2009) HIV / AIDS - Related Stigma and Discrimination in Nigeria: Review of Research Studies and future directions for Prevention Strategies. *African Journal of Reproductive Health*, Vol. 13, no. 3, pp.21–35.
- Moses, T. (2010) Being treated differently: stigma experiences with family, peers, and school staff among adolescents with mental health disorders. *Social science & medicine (1982)*, Vol. 70, no. 7, pp.985–93.
- Munthree, C. & Maharaj, P. (2010) Growing Old in the Era of a High Prevalence of HIV/AIDS: The Impact of AIDS on Older Men and Women in KwaZulu-Natal, South Africa. *Research on Aging*, Vol. 32, no. 2, pp.155–174.
- National Department of Health (2011) *The 2011 National Antenatal Sentinel HIV & Syphilis Survey in South Africa*. [Online][Accessed June 3, 2013]. Available at: www.kznhealth.gov.za.

- Natsuo, T. (2010) Adherence to HIV treatment. *Nippon Rinsho*, Vol. 68, no. 3, pp.465–475.
- Ndlovu, N. & Daswa, R. (2008) Review of progress and expenditure on the comprehensive plan for HIV and AIDS for South Africa. *South African Journal of Economics*, Vol. 76, Sp. Iss.1, pp.S34–S51.
- Neuman, M. & Obermeyer, C.M. (2013) Experiences of Stigma, Discrimination, Care and Support Among People Living with HIV: A Four Country Study. *Aids and Behavior*, Vol. 17, Iss.5, pp.1796-1808.
- Nhamo, M.N. (2011) *The role of churches in tackling HIV stigma in eastern Zimbabwe*. PhD. London School of Economics and Political Science.
- Nuddell, S. (2010) Easing the throttle in drive to work leaner. *Health Estate*, Vol. 64, no. 9, pp.85–86.
- Nyabadza, F. & Mukandavire, Z. (2011) Modelling HIV/AIDS in the presence of an HIV testing and screening campaign. *Journal of Theoretical Biology*, Vol. 280, no. 1, pp.167–179.
- Oliva, J. (2010) Labour participation of people living with HIV/AIDS in Spain. *Health Economics*, Vol. 19, no. 4, pp.491–500.
- Omer, E.M. & Mariam, D.H. (2008) Impact of HIV/AIDS on labor productivity in Akakifiber products factory, Ethiopia. *Ethiopian Medical Journal*, Vol. 46, no. 2, pp.123–131.
- Pachman, J. (2009) Evidence base for pre-employment medical screening. *Bulletin of the World Health Organization*, Vol. 87, no. 7, pp.529–534.
- Palo, J.M. and S. (2009) The “Nirvana” model: a strategic training management tool to improve productivity. The case of an Indian organization. *Development and Learning in Organizations*, Vol. 23, no. 6.

- Pantilat, S. (2008) Fast Facts. [Online] [Accessed May 9, 2013] Available at: http://missinglink.ucsf.edu/lm/ethics/content/pages/fast_fact_auton_bene.htm.
- Parasuraman, R. & Wickens, C.D. (2008) Humans: still vital after all these years of automation. *Human factors*, Vol. 50, no. 3, pp.511–20.
- Parker-Bates, A. & Hill, J. (2010) Reducing the cost of automation: Andy Parker Bates and John Hill of the Automation Group of Parker Hannifin discuss the latest modular automation technology. *Assembly Automation*, Vol. 30, no. 2.
- Partnership for Prevention. (2010) *Healthy Workforce: 2010 and Beyond*. [Online] [Accessed September 10, 2012] Available at: <http://www.prevent.org>
- Patel, L. (2012) Poverty, Gender and Social Protection: Child Support Grants in Soweto, South Africa. *Journal of Policy Practice*, Vol. 11, no. 1/2, pp.106–120.
- Peltzer, K., Friend-du Preez, N., Ramlagan, S. & Anderson, J. (2010) Antiretroviral treatment adherence among HIV patients in KwaZulu-Natal, South Africa. *BMC public health*, Vol. 10, p.111.
- Pennap, G.R.I., Chaanda, M. & Ezirike, L. (2011) A Review of the Impact HIV/AIDS on Education, The Workforce and Workplace. *The Social Sciences*, Vol. 6, no. 2, pp.164–168.
- Persson, J. & Wallin, A. (2012) Why internal validity is not prior to external validity. In *Philosophy of Science Assoc 23rd Biennial Mtg San Diego CA PSA 2012 Contributed Papers*. Phil Sci Archive.
- Pfeffer, J. (2010) Lay Off the Layoffs: Our overreliance on downsizing is killing workers, the economy-and even the bottom line. *NEWSWEEK*. [Online] 5th February. [Accessed May 24, 2013] <http://www.newsweek.com/id/233131>

- Philip, M. (2011) Factors affecting business success of small & medium enterprises (SMEs). *Amity Global Business Review*, Vol. 7, no. 5, pp.180–190.
- Phillips-Guzman, C.M., Martinez-Donate, A.P., Hovell, M.F., Blumberg, E.J., Sipan, C.L., Rovniak, L.S. & Kelley, N.J. (2011) Engaging local businesses in HIV prevention efforts: the consumer perspective. *Health Promotion Practice*, Vol. 12, no. 4, pp.620–629.
- Phiri, S. and Webb, D. 'The Impact of HIV/AIDS on Orphans and Programme and Policy Responses'. In Cornia, G.A.(ed). *AIDS, Public Policy and Child Well-Being*. Florence: UNICEF.
- Pillai, N. V, Kupprat, S.A. & Halkitis, P.N. (2009) Impact of service delivery model on health care access among HIV-positive women in New York City. *AIDS patient care and STDs*, Vol. 23, no. 1, pp.51–58.
- Pollitt, D. (2010) Training transforms the fortunes of Chesapeake manufacturing plant: Site becomes beacon of good practice. *Human Resource Management International Digest*, Vol. 18, no. 5, pp.17–18.
- Razafsha, M., Behforuzi, H., Azari, H., Zhang, Z., Wang, K.K., Kobeissy, F.H. & Gold, M.S. (2012) 'Qualitative versus quantitative methods in psychiatric research'. In Razafsha, M., *et al.*, *Psychiatric Disorders*, Vol. 829. NJ: Humana Press.
- Research Advisors.(n.d.) *Research Methods, Study Design, Statistical Analysis*. [Online] [Accessed January 15, 2013] Available at: <http://www.research-advisors.com>.
- Richter, L. 'The Impact of HIV / AIDS on the development of children'. In Pharoah, R. (ed). *A generation at risk? HIV/AIDS, vulnerable children and security in Southern Africa*. South Africa: Institute of Security Studies, pp.9-31.

- Rogers, S.J., Adetoro, A., Burke, P., Llado, J. & Lukyanova, N. (2010) The role of Tripartism in a global HIV/AIDS workplace initiative. *Journal of International Development*, Vol. 22, no. 1, pp.137–147.
- Rohleder, P., Swartz, L., Schneider, M., Groce, N. & Eide, A. (2009) HIV/AIDS and Organizations in South Africa. *Cultural Studies Critical Methodologies*, Vol.9, no. 4, pp.570–587.
- Rutledge, S.E., Whyte, J., Abell, N., Brown, K.M. & Cesnales, N.I. (2011) Measuring stigma among health care and social service providers: The HIV/AIDS Provider Stigma Inventory. *AIDS patient care and STDs*, Vol. 25, no. 11, pp.673–82.
- Sadler, G.R., Lee, H/C., Lim, R.S/H. & Fullerton, J. (2010) Recruitment of hard-to-reach population subgroups via adaptations of the snowball sampling strategy. *Nursing health sciences*, Vol. 12, no. 3, pp.369–374.
- Salkind, N.J. (2012) *Exploring Research*, 8th ed., Pearson Education, Inc.
- Samy, Y. & Carment, D. (2010) The Millennium Development Goals and Fragile States : Focusing on What Really Matters. *The Fletcher Forum of World Affairs*, Vol. 35, no. 1, pp.91–108.
- Sanneh, A. (2010) *The Emotional Reaction of Parentally AIDS-Bereaved Young People: A Qualitative Study of Bereaved Young People, Carers and Professionals in the Gambia*. University of Southampton.
- Sastry, S. & Dutta, M.J. (2011) Postcolonial Constructions of HIV/AIDS: Meaning, Culture and Structure. *Health Communication*, Vol. 26, no. 5, pp.437–449.
- Sax, P.E. & Baden, L.R. (2010) When and why to start antiretroviral therapy? *The New England Journal of Medicine*, Vol. 65, no. 3, pp.383–385.
- Schiller, B.R. (2009) *Essentials of Economics*, Seven Edit. McGraw-Hill.

- Seeley, J., Dercon, S. & Barnett, T. (2010) The effects of HIV/AIDS on rural communities in East Africa: a 20-year perspective. *Tropical medicine international health TM IH*, Vol. 15, no. 3, pp.329–335.
- Sepulveda, F. (2010) Training and productivity: evidence for US manufacturing industries. *Oxford Economic Papers*, Vol. 62, no. 3, pp.504–528.
- Shet, A., Decosta, A., Heylen, E., Shastri, S., Chandy, S. & Ekstrand, M. (2011) High rates of adherence and treatment success in a public and public-private HIV clinic in India: potential benefits of standardized national care delivery systems. *BMC Health Services Research*, Vol. 11, no. 1, p.277.
- Shisana, O., Rehle, T., Simbayi, L.C., Zuma, K., Jooste, S. Pillay-van Wyk, V., Mbelle, N., Van Zyl, J., Parker, W., Zungu, N.P. & Pezi, S. (2009) *South African national HIV prevalence, incidence, behaviour and communication survey, 2008: A turning tide among teenagers?* HSRC Press.
- Simbiri, K.O.A., Omollo, A., Hausman, A., Wadenya, R.O. & Lidicker, J. (2010) Access Impediments to Health Care and Social Services Between Anglophone and Francophone African Immigrants Living in Philadelphia with Respect to HIV/AIDS. *Journal of immigrant and minority health Center for Minority Public Health*, Vol. 12, no. 4, pp.569–579.
- Simon, K., Simon, R. & Serafińska, S. (2010) HIV/AIDS and aging. *Przegląd Epidemiologiczny*, Vol. 64, no. 2, pp.287–292.
- Smart, T. (2009) After my parents died: The effect of HIV on the mental health of children: a clinical review. *HIV AIDS Treatment in Practice*, November 2, no. 149, pp.2–11.
- Smith, R. & Project Empower. (2010) *The means is the end : Reflections on the process of developing HIV workplace policies*. International NGO Training and Research Centre.

- Soko, D., Umar, E., Noniwa, T. & Lakudzala, A. (2012) HIV and AIDS workplace interventions; Gaps between policy and practice at the College of Medicine. *Malawi medical journal: the journal of Medical Association of Malawi*, Vol. 24, no. 3, pp.52–5.
- South African Revenue Service. (2011) *Medium-term expenditure framework and division of revenue*, pp. 31-46.[Online] [Accessed March 4, 2013]. Available at: www.sars.gov.za.
- Sprague, L., Simon, S. & Sprague, C. (2011) Employment discrimination and HIV stigma: survey results from civil society organisations and people living with HIV in Africa. *African Journal of AIDS Research*, Vol. 10, sup.1, pp.311–324.
- Sridhar, D. & Batniji, R. (2008) Misfinancing global health: a case for transparency in disbursements and decision making. *Lance*, Vol. 372, no. 9644, pp.1185–1191.
- Statistics South Africa (2008) *National Accounts: Compendium of industrial statistics: Knowledge, productivity and innovation*. [Online] [Accessed March 19, 2013] Available at: www.statssa.gov.za.
- Statistics South Africa (2011) *Census 2011*. [Online] [Accessed March 19, 2013] Available at: www.statssa.gov.za.
- Statistics South Africa. (2012) *Quarterly Labour Force Survey, Quarter 4*. [Online] [Accessed March 4, 2013] Available at: www.statssa.gov.za.
- Streiner, D.L. (2013) *A Guide to Statistically Perplexed: Selected Readings for Clinical Researchers*. Canadian Psychiatric Association, (ed). Toronto, USA: University of Toronto Press.
- Sun, X., Lu, F., Wu, Z., Poundstone, K., Zeng, G., Xu, P., Zhang, D., & Liu, K., & Liau, A. (2010) Evolution of information-driven HIV/AIDS policies in China. *International Journal of Epidemiology*, Vol. 39, suppl. 2, pp.ii4–ii13.

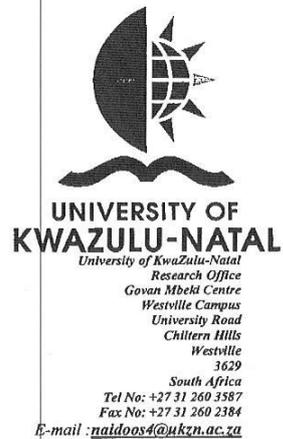
- Surgevil, O. & Akyol, E.M. (2011) Discrimination against people living with HIV/AIDS in the workplace: Turkey context. *Equality, Diversity and Inclusion: An International Journal*, Vol. 30, no. 6, pp.463–481.
- Tavakol, M. & Dennick, R. (2011) Making sense of Cronbach's alpha. *International Journal of Medical Education*, Vol. 2, pp53-55.
- Telkom.(n.d.) *Yellow Pages*. [Online] [Accessed December 20, 2012]. Available at: <http://www.yellowpages.co.za>.
- the DTI and Delloitte (2012) *South Africa: Investor's Handbook 2012/13*. [Online][Accessed June 26, 2012] Available at: <http://www.thedti.gov.za/DownloadFileAction?id=742>.
- The Henry J. Kaiser Family Foundation.(n.d.) *Hitting Home: How Households Cope with the Impact of the HIV/AIDS Epidemic*. [Online] [Accessed July 10, 2011] Available at: <http://www.kff.org/southafrica/20021125a-index.cfm>.
- The Presidency Government of South Africa.(n.d.) *Millenium Development Goals*. [Online] [Accessed March 22, 2013] Available at: www.thepresidency.gov.za.
- The Times Newspaper.(2009) No Title.
- Thurlow, J., Gow, J. & George, G. (2009) HIV/AIDS, growth and poverty in KwaZulu-Natal and South Africa: an integrated survey, demographic and economy-wide analysis. *Journal of the International AIDS Society*, Vol. 12, p.18.
- Tinubu, B., Mbada, C.E., Oyeyemi, A.L., & Fabunmi, A.A. (2010) Work-Related Musculoskeletal Disorders among Nurses in Ibadan, South-west Nigeria: a cross-sectional survey. *BMC Musculoskeletal Disorders*, Vol. 11, p.12.
- Todd, J.S. & Nordstrom, C.R. (2012) An Examination of Employee Layoffs and Organizational Justice Perceptions. *Journal of Organizational Psychology*, Vol.12, pp.11–20.

- Vaas, J.R. (2008) The role of HIV/AIDS committees in effective workplace governance of HIV/AIDS in South African small and medium-sized enterprises (SMEs). *Journal of Social Aspects of HIV/AIDS Research Alliance*, Vol. 5no.1, pp.2–10.
- Van Wyk, J. (2012) HIV/AIDS A Business Risk: A South African Case Study. *Business & Society*, Vol. 51, pp.263–309.
- Varun, S. (2010) *HIV/AIDS-Beyond Numbers*. International Sociological Association. [Online][Accessed May 2013] Available at: <http://search.proquest.com/docview/743065619?accountid=13042>.
- Vieira, M.A. (2011) Southern Africa's response(s) to international HIV/AIDS norms: the politics of assimilation. *Review of International Studies*, Vol. 37, no. 1, pp.3–28.
- Virakul, B. & McLean, G.N. (2010) Re-visiting HIV/AIDS in the workplace and HR work in Thai business organizations. *Journal of Global Responsibility*, Vol.1, no. 2.
- Wagner, A.K., Graves, A.J., Reiss, S.K., Lecates, R. & Zhang, F. & Ross-Degnan, D. (2011) Access to care and medicines, burden of health care expenditures and risk protection: results from the World Health Survey. *Health Policy*, Vol. 100, no. 2-3, pp.151–158.
- Whiteside, A. (2010) HIV / AIDS Africa. *Global Health and Governance: HIV/AIDS*, Vol. 23, no. 2, pp.313–332.
- Williams, J., Gonzalez-Medina, D. & Le, Q. (2011) Infectious diseases and social stigma. *Applied Technologies & Innovations*, April, pp.58–70.
- Wilson, S. (2012) Settling for discrimination: HIV / AIDS Carriers and the resolution of legal claims. *International Journal of Asia Pacific Studies*, Vol. 8, no. 1, pp.35–55.

- Winskell, K., Hilla, E. & Obyerodhyambo, O. (2011) Comparing HIV-related symbolic stigma in six African countries: Social representations in young people's narratives. *Social science & medicine*, Vol. 73, no. 8, pp.1257–1265.
- Winskell, K., Obyerodhyambo, O. & Stephenson, R. (2011) Making sense of condoms: social representations in young people's HIV-related narratives from six African countries. *Social science medicine*, Vol. 72, no. 6, pp.953–961.
- World Bank.(n.d) *Long Term Economic Impact of HIV/AIDS more damaging than previously thought*.
- World Economic Forum. (2009) *The Africa Competitiveness Report 2009*.Geneva.
- World Economic Forum. (n.d) *Business and HIV / AIDS in Africa : A Regional Snapshot HIV / AIDS significantly impacts economic growth in Africa today*.
- World Health Organization. (2010) *Macroeconomics and Health: The Way Forward In the African Region*.*[Online]* [Accessed March 22, 2013] Available at: www.who.int/macrohealth/en/.
- World Health Organization. (2010) *Tough choices: investing in health for development*. *[Online]*[Accessed April 20, 2013] Available at: www.who.int/macrohealth/en/.
- Worley, S., Didiza, Z., Nomatshila, S., Porter, S., Makwedini, N., Macharia, D. & Hoos, D. (2009) Wellness programmes for persons living with HIV/AIDS: experiences from Eastern Cape province, South Africa. *Global Public Health*, Vol. 4, no. 4, pp.367–385.
- Work and Family Researchers Network. (n.d). *[Online]* [Accessed April 7, 2013]. Available at <https://workfamily.sas.upenn.edu/glossary/p/presenteeism-definitions>

- Wouters, E., Van Rensburg, H.C.J. & Meulemans, H. (2010) The National Strategic Plan of South Africa: what are the prospects of success after the repeated failure of previous AIDS policy? *Health Policy and Planning*, Vol. 25, no. 3, pp.171–185.
- Yamamoto, S., Loerbroks, A. & Terris, D.D. (2009). Measuring the effect of workplace health promotion interventions on “presenteeism”: a potential role for biomarkers. *Preventive Medicine*, Vol. 48, no. 5, pp.471–472.
- Yap, M.H.T. & Ineson, E.M. (2009) HIV-infected employees in the Asian hospitality industry. *Journal of Service Management*, Vol. 20, no. 5, pp.503–520.
- Yap, M.H.T. & Ineson, E.M. (2010) Hospitality managers’ knowledge of HIV and HIV education: an exploratory study. *International Journal of Contemporary Hospitality Management*, Vol. 22, no. 1, pp.69–81.
- Yap, M.H.T. & Ineson, E.M. (2012) Diversity management: The treatment of HIV-positive employees. *AIDS care*, Vol. 24, no. 11, pp.1349–58.
- Zeelen, J., Wijbenga, H., Vintges, M. & de Jong, G. (2010) Beyond silence and rumor: Storytelling as an educational tool to reduce the stigma around HIV/AIDS in South Africa. *Health Education*, Vol. 110, no. 5, pp.382–398.
- Zhang, Y., Zhang, X., HancoAleong, T. & Fuller-Thomson, E. (2011) Impact of HIV/AIDS on Social Relationships in Rural China. *The open AIDS journal*, Vol. 5, pp.67–73.
- Zhao, Q., Li, X., Kaljee, L.M., Fang, X., Stanton, B. & Zhang, L. (2009) AIDS orphanages in China: reality and challenges. *AIDS patient care and STDs*, Vol. 23, no. 4, pp.297–303.
- Zuch, M. & Lurie, M. (2011) “A Virus and Nothing Else”: the Effect of ARV on HIV-Related Stigma in Rural South Africa. *Aids and Behavior*.

APPENDIX 1



22 July 2010

Mr C S Khoza
4 Snipe Crescent
Yellowwood Park
DURBAN
4004

Dear Mr Khoza

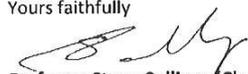
PROTOCOL: The Impact of HIV/AIDS on eThekweni Businesses
ETHICAL APPROVAL NUMBER: HSS/0809/2010 : Faculty of Management Studies

In response to your application dated 09 July 2010, Student Number: **208515910** the Humanities & Social Sciences Ethics Committee has considered the abovementioned application and the protocol has been given **FULL APPROVAL**.

PLEASE NOTE: Research data should be securely stored in the school/department for a period of 5 years.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully



Professor Steve Collings, (Chair)
HUMANITIES & SOCIAL SCIENCES ETHICS COMMITTEE

SC/sn

cc: Prof. A M Maharaj (Supervisor)
cc: Mrs. C Haddon

APPENDIX 2

Informed Consent Letter 3C

UNIVERSITY OF KWAZULU-NATAL

SCHOOL

Dear Respondent,

Master of Business Administration Research Project

Researcher: Mr. Christian Sibusiso Shongwe +2772- 676 7016

Supervisor: Mr. Alec Bozas +2731- 260 1626

Research Office: Ms P Ximba 031-2603587

I am **Christian Sibusiso Shongwe** an MBA student, at the Graduate School of Business, of the University of Kwazulu-Natal. You are invited to participate in a research project entitled **The Impact of HIV/AIDS on eThekweni Businesses.**

The aim of this study is to:

- (1) To establish the number of HIV/AIDS-related deaths in a sample of the chosen industries.
- (2) To establish additional costs to companies caused by HIV/AIDS-related deaths.
- (3) To establish loss of productivity due to absenteeism caused by HIV/AIDS-related matters.

Through your participation I hope to understand the impact of HIV/AIDS-related deaths in your business. The results of the focus group are intended to contribute to HIV/AIDS management in the workplace.

Your participation in this project is voluntary. You may refuse to participate or withdraw from the project at any time with no negative consequence. There will be no monetary gain from participating in this survey/focus group. Confidentiality and anonymity of records identifying you as a participant will be maintained by the Graduate School of Business, UKZN.

If you have any questions or concerns about completing the questionnaire or about participating in this study, you may contact me or my supervisor at the numbers listed above.

The survey should take you about 15 minutes to complete. I hope you will take the time to complete this survey.

Sincerely

Investigator's signature _____ Date _____

This page is to be retained by participant

UNIVERSITY OF KWAZULU-NATAL

SCHOOL

Master of Business Administration Research Project

Researcher: Christian Sibusiso Shongwe +2772- 676 7016

Supervisor: Mr. Alec Bozas +2731- 260 1626

Research Office: Ms P Ximba 031-2603587

CONSENT

I.....(full names of participant) hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire.

SIGNATURE OF PARTICIPANT

DATE

.....

This page is to be retained by researcher

APPENDIX 3

UNIVERSITY OF KWAZULU-NATAL GRADUATE SCHOOL OF BUSINESS

Master of Business Administration Research Project

Researcher: Mr. Christian Sibusiso Shongwe +2772- 676 7016

Supervisor: Mr. Alec Bozas +2731- 260 1626

Research Office: Ms P Ximba 031-2603587

The Impact of HIV/AIDS on eThekweni Businesses

The purpose of this survey is to solicit information from businesses regarding the impact of HIV/AIDS. The information and ratings you provide us will go a long way in helping us identify the effects of HIV/AIDS-related deaths on businesses and the economy. The questionnaire should only take **10-15** minutes to complete. In this questionnaire, you are asked to indicate what is true for you, so there are no “right” or “wrong” answers to any question. Work as rapidly as you can. If you wish to make a comment please write it directly on the booklet itself. Make sure not to skip any questions. Thank you for participating.

End of the Questionnaire

Thank you for taking the time to complete the questionnaire.

APPENDIX 4

QUESTIONNAIRE

The Impact of HIV/AIDS on eThekweni Businesses

1. How many employees are currently employed in your organization?
 - a. 1-200
 - b. 201-400
 - c. 401-600
 - d. 601-800
 - e. More than 800

2. Are you aware of employees in your organization who have been diagnosed with HIV/AIDS in the last 12 months?
 - a. Yes
 - b. No

3. If you answered '**No**' in question 2, **do not proceed** with the questionnaire. If you answered '**Yes**', how many of your employees have been diagnosed with HIV/AIDS in the last 12 months?
 - a. None
 - b. 1-20
 - c. 21-40
 - d. 41-60
 - e. More than 60

4. How many of the HIV/AIDS employees are on anti-retroviral treatment?
- a. None
 - b. 1-20
 - c. 21-40
 - d. 41-60
 - e. More than 60
5. How many of the HIV/AIDS employees have died due to HIV/AIDS-related illnesses in the last 12 months?
- a. None
 - b. 1-20
 - c. 21-40
 - d. 41-60
 - e. More than 60
6. How many employees have been recruited to replace the ones that have died due to HIV/AIDS-related illnesses in the last 12 months?
- a. None
 - b. 1-20
 - c. 21-40
 - d. 41-60
 - e. More than 60

7. What is the estimated cost of recruiting (i.e. advertising, travelling claims, etc.) new employees?
- a. Nil
 - b. R1000-R10,000
 - c. R11,000-R20,000
 - d. R21,000-R30,000
 - e. More than R30,000
8. What is the estimated cost of training new employees?
- a. Nil
 - b. R1000-R10,000
 - c. R11,000-R20,000
 - d. R21,000-R30,000
 - e. More than R30,000
9. I believe that buying machinery or automation reduces dependency on labour force and increases the organisation's profit margins.
- a. Strongly Agree
 - b. Agree
 - c. Disagree
 - d. Strongly disagree

10. If you answered strongly agree or agree to question 9, what was the estimated cost of machinery or automation in the last 12 months?
- a. None
 - b. R1,000-R100,000
 - c. R101,000-R200,000
 - d. R201,000-R300,000
 - e. More than R300,000
11. HIV/AIDS-related illnesses have/had a negative impact on the organisation's productivity.
- a. Strongly Agree
 - b. Agree
 - c. Disagree
 - d. Strongly disagree
12. What are the average man days lost in the last twelve months due to HIV/AIDS infection?
- a. 1-10
 - b. 11-20
 - c. 21-30
 - d. 31-40
 - e. More than 40

13. In terms of sick leave pay, how much did the organisation have to pay each employee for absenteeism due to HIV/AIDS-related illnesses in the last 12 months?
- a. Less than R1,000
 - b. R1,000-R9,999
 - c. R10,000-R19,999
 - d. R20,000-R29,999
 - e. More than R29,999
14. How many of the HIV/AIDS employees had to be laid-off in the last 12 months because they were not productive anymore?
- a. None
 - b. 1-20
 - c. 21-40
 - d. 41-60
 - e. More than 60
15. How much did the organisation have to pay each employee for the layoffs in the last 12 months?
- a. Nil
 - b. R10,000-R19,999
 - c. R20,000-R29,999
 - d. R30,000-R39,999
 - e. More than R39,999

APPENDIX 5

Trend Report

Start Date 2013/02/08
End Date 2013/05/08
Report Type Yearly

Impact of HIV/AIDS on eThekweni Businesses

2013
2013/01/01

1. How many employees are currently employed in your organisation?

1-200	32.43%
201-400	14.86%
401-600	9.46%
601-800	2.70%
More than 800	40.54%
	74

2. Are you aware of employees in your organisation who have been diagnosed with HIV/AIDS in the last 12 months?

Yes	30.56%
No	69.44%
	72

3. How many of your employees have been diagnosed with HIV/AIDS in the last 12 months

None	0.00%
1-20	65.00%
21-40	20.00%
41-60	10.00%
More than 60	5.00%
	20

4. How many of the HIV/AIDS employees are on anti-retroviral treatment?

None	5.56%
1-20	66.67%
21-40	11.11%
41-60	11.11%
More than 60	5.56%
	18

5. How many of the HIV/AIDS employees have died due to HIV/AIDS-related illnesses in the last 12 months?

None	22.22%
1-20	66.67%
21-40	5.56%
41-60	5.56%
More than 60	0.00%
	18

6. How many employees have been recruited to replace the ones that have died due to HIV/AIDS-related illnesses in the last 12 months?

None	33.33%
1-20	27.78%
21-40	27.78%
41-60	0.00%
More than 60	11.11%

18

7. What is the estimated cost of recruiting (i.e. advertising, travelling claims, etc) new employees?

Nil	33.33%
R1,000-R10,000	13.33%
R11,000-R20,000	6.67%
R21,000-R30,000	6.67%
More than R30,000	40.00%

15

8. What is the estimated cost of training new employees?

Nil	23.08%
R1,000-R10,000	15.38%
R11,000-R20,000	15.38%
R21,000-R30,000	7.69%
More than R30,000	38.46%

13

9. I believe that buying machinery or automation reduces dependency on labour force and increases the organisations profit margins.

Strongly Agree	35.71%
Agree	57.14%
Disagree	0.00%
Strongly Disagree	7.14%

14

10. What was the estimated cost of machinery or automation in the last 12 months?

None	8.33%
R1,000-R100,000	16.67%
R101,000-R200,000	33.33%
R201,000-R300,000	0.00%
More than R300,000	41.67%

12

11. HIV/AIDS-related illnesses have/had a negative impact on the organisations productivity.

Strongly Agree	61.54%
Agree	30.77%
Disagree	7.69%
Strongly Disagree	0.00%

13

12. What are the average man days lost in the last 12 months due to HIV/AIDS infections?

1-10	15.38%
11-20	23.08%
21-30	15.38%
31-40	7.69%
More than 40	38.46%
	13

13. In terms of sick leave pay, how much did the organisation have to each employee for absenteeism due to HIV/AIDS-related illnesses in the last 12 months?

Less than R1,000	8.33%
R1,000-R9,999	25.00%
R10,000-R19,999	16.67%
R20,000-R29,999	25.00%
More than R29,999	25.00%
	12

14. How many of the HIV/AIDS employees had to be laid-off in the last 12 months because they were not productive anymore?

None	46.15%
1-20	46.15%
21-40	7.69%
41-60	0.00%
More than 60	0.00%
	13

15. How much did the organisation have to pay each employee for the lay-offs in the last 12 months?

Nil	46.15%
R10,000-R19,999	30.77%
R20,000-R29,999	15.38%
R30,000-R39,999	0.00%
More than R39,999	7.69%
	13