Title

The Knowledge, Attitude And Training Needs Of Line Managers

At The South African Sugar Association (SASA) With Regards To

The Management Of HIV/AIDS Infected Employees.

By

Predhie Naidoo

Submitted in partial fulfillment of the requirements for the degree of:

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Supervisor

Mr. Peter Raap

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APPROVED FOR FINAL SUBMISSION

_____ **Date : _____**

PJ Raap
BSc. (Agric) MBA
SUPERVISOR

30 January 2004

To Whom It May Concern:

RE: CONFIDENTIALITY CLAUSE

This work is of strategic importance due nature of the information contained in the research and the intended use.

It would be appreciated if the contents of this dissertation remain confidential and not be circulated for a period of five years.

Sincerely,

_____

P. Naidoo (Mrs.)

Declaration

This work has not been previously accepted in substance for any degree and is not being concurrently submitted in candidature for any degree.

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This dissertation is being submitted in partial fulfillment of the requirements for the degree of Masters in Business Administration.

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Dedication

This dissertation is dedicated to:

My husband Marlan and our children, Ryan and Leah, whose unfailing support and understanding has provided the foundation for my achievements. At last no more working weekends and late nights and most importantly, more time to do the fun stuff.

My mother, Mrs. SD Singh, whose life has demonstrated the true meaning of loving and caring for one's children. For making numerous personal sacrifices so that we had the opportunity to achieve the best that we could. For the good you saw in us, the values you instilled in us, and for showing us that having a little does not hold you back from achieving a lot. For teaching us that our background and circumstances may have influenced who we are, but we are responsible for whom we become.

All SASA employees past and present, who are infected with/and affected by HIV/AIDS. I hope and pray that this research makes a difference.

Lastly, but certainly not least, my Lord Jesus Christ, since all that I am and all that I have accomplished has been through your mercy and grace.

Abstract

The knowledge, attitude and training needs of line managers at the South African Sugar Association (SASA) with regards to the management of HIV/AIDS infected employees.

Background: The rapid spread of HIV/AIDS is having an increasingly adverse impact on the operations of companies. Due to the changing environment in which line managers have to operate as a result of HIV/AIDS, line managers will increasingly be faced with handling HIV/AIDS infected employees and all the issues surrounding this epidemic. The research investigates the knowledge, attitude and training needs of line managers in SASA with regards to the management of HIV/AIDS infected employees.

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Objective: The goals of the research are;

1). To ascertain the prevailing level of knowledge, attitude and training needs of line managers at SASA with regards to the management of HIV/AIDS infected employees.

2). To establish the relationship between the biographic variables and knowledge, attitude and training needs with regards to the management of HIV/AIDS infected employees.

Design: The study is a census of 164 line managers in SASA. The research design was descriptive and the type of study is a field study. The research methodology was quantitative and a self-administered questionnaire comprising of 45 questions is used for data collection. The questionnaire is e-mailed and posted to the respondents. The quantitative data is analyzed using descriptive and inferential statistics by means of the SPSS program and the qualitative data by content analysis.

Results: 65% of the population was between the ages of 30-49 years, 75% are males, 71% were white and 79% are married. The level of knowledge of HIV/AIDS was 86.72 % and the level of knowledge of transmission was 90.96 %. The score for the attitude towards HIV/AIDS and People With AIDS (PWA) was 46.11 (i.e. 76.85 % positive attitude). The training needs score was 70%. The ANOVA results showed that, for the knowledge and training needs variable against grade, the difference between the means was significant. Therefore the trend noted is valid.

Conclusion: On the basis of these results, it is concluded that there is a high level of knowledge on HIV/AIDS, the attitude is good and the need for specific training is high (above 80 percent). It was found that only for the knowledge and training needs variable against grade is the difference between the mean significant, meaning that the trend noted is valid. All others showed no significant difference. The correlation analysis indicates that the knowledge and attitude variables have very slight positive correlation, which has very low significance.

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Chapter One

1. Introduction and Overview of the study

"Some 200 000 people died in 1998 as a result of armed conflict on the African continent. Two million Africans were killed by AIDS in the same year: The HIV/AIDS pandemic is the most terrible undeclared war in the world."

Carol Bellamy, Executive Director UN Children's Fund
(Sunday Independent, September 19, 1999)

This chapter provides an insight into the background of the research as well as the aim and rationale for the work. It also provides a foundation for putting the research into perspective by giving a brief description of the methodology and chapters contained in this research.

1.1 Introduction

In order to understand the rationale for the research, the sugar industry and HIV/AIDS needs to be put into context.

1.1.1 The Sugar Industry

The South African sugar industry is a diverse industry that combines agricultural activities with production, and local and international sales. The sugar industry employs 84 000 people directly, 350 000 indirectly and has one million dependants in total (South African Sugar Association, 2002). The South African Sugar Association (SASA) is a

non-profit organisation that provides a range of specialist services to the Sugar Industry. SASA has ten divisions, which supports the industry and two divisions that support SASA.

1.1.2 HIV/AIDS

Acquired immunodeficiency syndrome (AIDS), is a disease caused by a human immunodeficiency virus (HIV). More than two decades after the HIV/AIDS epidemic took roots, Africa continues to record the greatest number of infections and deaths. The United Nations estimates that 34.3 million people in the world have HIV/AIDS, with 24.5 million of them in Sub-Saharan Africa (UNAIDS, 2000).

According to the World Health Organisation (2000), Africa is home to seventy percent of the adults and eighty percent of the children living with HIV/AIDS in the world. We have buried three-quarters of the more than 20 million people worldwide who have died of HIV/AIDS since the epidemic began.

1.1.3 HIV/AIDS in South Africa

Former President Nelson Mandela, commissioned the Human Sciences Research Council (HSRC) to conduct South Africa's first ever nationally representative survey of HIV prevalence. The information gained in this study indicated that just over eleven percent (11.4%) of the country's population of two years and older are living with HIV/AIDS.

Some 12.8 percent of women and 9.5 percent of men tested HIV-positive. In spite of alarming statistics, the epidemic is still spreading widely in South Africa (Evian, 1991).

Deloitte and Touche (2002) released their report titled *AIDS in the Workplace 2002*. According to this report Kwa-Zulu Natal has the highest HIV prevalence rate, 33.5 percent. The age group 25-29 has the highest prevalence (31.4 percent), and there has been an increase of two percent from 2000 to 2001 in the prevalence in age group 30-34. The report states that in 2003 it is estimated that eighteen percent of the economically active population in South Africa (fifteen years to sixty years), are HIV positive and three percent has AIDS.

1.1.4 HIV/AIDS in the Workplace

The rapid spread of HIV/AIDS is having an increasingly adverse impact on the operations of companies. Employers experience increased production costs, reduced profits and greater difficulty in delivering services (Rau, 2002). HIV/AIDS will have greater impact in sub-Saharan Africa, since it strikes adults during their most economically active years (Whiteside & Sunter, 2000). This is related to the fact that the industry is very labour intensive.

The following tables depict the current and projected HIV/AIDS statistics and places into perspective the impact of HIV/AIDS on the South African workforce in the years to come.

Table 1.1 Projection of Infection rate in the workforce

	1999	*2005*	*2010*
% SA workforce sick with HIV	11.5	20	22.5
% SA workforce sick with AIDS	0.4	1.65	2.7
New AIDS cases per annum	145 256	466 365	625 180

Metropolitan Life. (1999) *Doyle Model Scenario 225*. Cape Town.

Table 1.2 Category Infected in 2000

CATEGORY INFECTED	%
Highly skilled	12.1
Semi-skilled	21.4
Unskilled	29.4

INGBARINGS. (2000*) Economic Impact of AIDS in South Africa*: A Dark Cloud on the horizon. Johannesburg.

The statistics in the tables above display two distinct trends.

- Firstly, the large projected increase in the percentage of infections over the next six years.
- Secondly, the fact that the majority of the infected workforce falls into the categories of semi skilled and unskilled workers.

The consequence of this trend, which is that line managers will increasingly have to deal with HIV/AIDS infected employees, is what is significant to this research. The statistics indicate that this trend will become more evident in the next year.

1.2 Background

As highlighted previously HIV/AIDS has become a serious threat to all industries. The absence of a strategy to address HIV/AIDS and its impact on both production and profit could result in dire consequences. A review of what SASA is doing to address these issues is found hereafter.

1.2.1 HIV/AIDS in SASA

SASA has a staff complement of approximately one thousand people. Sixty five percent of the staff complement fall into the category of unskilled and semi skilled. SASA's commitment to HIV/AIDS was apparent in 1996 when it formulated a policy to assist employees with the issue of HIV/AIDS in the workplace. The strategies adopted focused on prevention and education.

SASA has reaped the benefits of its effort. This was evident during the commemoration of last years' World Aids Day, when the SASA Executive Director, mentioned that SASA should be proud that there has been a notable trend in employees voluntarily approaching management and disclosing their HIV/AIDS status.

The SASA Executive held a HIV/AIDS Strategic Planning Workshop in August 2002. During the discussions, the need to equip line managers to deal with the challenges of managing HIV/AIDS in the workplace was identified as a possible organisational

priority. Due to the lack of information on the needs of the line managers, a decision could not be reached on how much effort or money should be expended on this.

1.3 Rational for the research

As noted previously SASA has already started on the path of taking the HIV/AIDS epidemic seriously and has already introduced policies to address this. In SASA an increasing trend of employees disclosing their HIV/AIDS status to their line managers, has been noted. The line managers therefore have the greatest opportunity of having a positive influence in the lives and work of these employees.

It is the belief of the researcher and SASA executive that HIV/AIDS presents a new dimension to managing employees. It is hence an assumption that currently, line managers are not equipped to effectively manage HIV/AIDS infected employees. This assumption will either be proved or disproved by the research being conducted.

In formulating a research topic it was agreed by SASA executive that such research could play an invaluable role in eliciting information that will help SASA to achieve its goal of developing a strategy to face the many and varied challenges of HIV/AIDS in the workplace.

This research is therefore necessary due to the changing environment in which line managers have to operate as a result of the HIV/AIDS epidemic. As noted by the data

presented in the introduction, line managers will increasingly be faced with handling HIV/AIDS infected employees and all the issues surrounding this epidemic.

1.4 Value of the Research

Once the objectives of the research are achieved, it;

- Will provide SASA with crucial information that it needs in the development of a HIV/AIDS Workplace Program.
- Will promote greater awareness of the management of HIV/AIDS infected employees at SASA.
- Will assist in the collaboration with other organisations in the sugar industry, which also have HIV/AIDS workplace programs.
- May stimulate future research based on the evaluation of HIV/AIDS Workplace programs.
- Will assist SASA in deciding on how to derive maximum benefit by effective utilization of its' limited resources.

1.5 Aim of the Research

The aim of this research is to assess the knowledge, attitude and training needs of line managers in the South African Sugar Association (SASA), with regards to the management of HIV/AIDS infected employees and, to determine how these variable are related to the biographic variables.

1.6 Research objectives

In order to achieve this aim the following objectives will be accomplished;

1). To ascertain the prevailing level of knowledge, attitude and training needs of line managers at SASA.

2). To establish the relationship between the biographic variables and knowledge, attitude and training needs.

1.7 Research Methodology

A brief presentation of the detailed exposition of the research methodology that is presented later in chapter three follows.

The purpose of this empirical research is to determine the knowledge, attitude and training needs of 164 line managers in SASA. The study was a census since it includes the total elements of the population. The instrument used in the study will be a self-administered questionnaire comprising 45 questions.

Quantitative data from the questionnaire will be analysed using descriptive and inferential statistics by means of the SPSS program. Qualitative data will be analysed using content analysis.

1.8 Limitations of the Research

A detailed discussion of the limitation and methods used to overcome the limitations is found in chapter three.

- It may be possible that the line managers will answer in a socially desirable manner. The introductory letter and the cover of the questionnaire will be framed in a manner that will promote the candor of responses.

- Research dealing with attitude cannot be hundred percent scientific. Therefore respondent bias can creep in.

Furthermore, besides Mondi (1997 & 2001) and South Deep Mines (2002), the researcher was unable to find any other published research on the specific issue of line managers' abilities and training needs with regards to the management of HIV/AIDS infected employees.

1.9 Structure of the Research

The following chapters will be present in the dissertation;

1.9.1 Chapter Two – Literature Review

The next chapter is the literature review, which covers the theoretical foundation of the research and examines recent reports that are pertinent to this research.

1.9.2 Chapter Three – Research Methodology

In this chapter a detailed exposition of the procedures and techniques used in the gathering of data is presented.

1.9.3 Chapter Four – Presentation of Results

The results of the response to the self-administered questionnaire are presented using an SPSS program for data analysis of quantitative information and content analysis for qualitative answers.

1.9.4 Chapter Five – Interpretation of Results

The results from the previous chapter are further analysed and interpreted.

1.9.5 Chapter Six – Recommendations and conclusion

Based on the findings of the research, recommendations are presented together with conclusions, which summarise the objectives in light of the findings.

1.10 Summary

The study aims to determine the prevailing level of knowledge, attitude and training needs of line managers at SASA, with regards to the management of HIV/AIDS employees. It is anticipated that in conducting this study in SASA, there is great potential for further research to be done in other organsations in the Sugar industry as well as in other industries in South Africa. The research will provide recommendation to SASA on the development of a HIV/AIDS strategy related to the needs of line managers. The theoretical framework of the study together with a review of the applicable literature is found in the next chapter.

Chapter Two

2. Literature Review

"The way managers address AIDS in the workplace will determine whether their companies survive the first decade of the 21st century. In South Africa there will be 580 000 new AIDS cases a year and a life expectancy of 38 by 2010."

Reported by Peter Hawthorne TIME (July 1999).

A literature review is undertaken to assist in establishing a theoretical basis for the research and to identify pertinent issues for consideration. This involves an examination of fundamental concepts of management of employees and how this aspect is related to the aim of the research. In addition, an assessment is made of HIV/AIDS guidelines for employers in order to establish what guidance is provided regarding training of line managers. Further to this, an evaluation of HIV/AIDS workplace programs is undertaken in order to determine the level of emphasis placed on the training of line managers. Lastly, a review of the Knowledge and Attitude (KA) surveys related to HIV/AIDS is conducted to determine what should be included in the KA survey for this research.

2.1 Theoretical Foundation for the Study

For the purposes of this study the term line managers refers to all managers i.e. first line managers, middle managers and top managers. The reason for this is that all three levels of managers supervise and manage staff and is therefore relevant to the research topic.

According to Kreitner (1996), management is the process of working with and through

others to achieve organizational objectives in a changing environment. Central to this is the effective and efficient use of resources.

According to the Asian Business Coalition on AIDS (2002), human resources are the backbone of every organisation and are a company's main asset. In today's highly competitive environment, the quality of human resources defines the quality of output and following this, the success of the business. Therefore the management of HIV/AIDS as an ongoing human resources strategy not only protects business interests, but also fulfills better management practices, affecting the overall performance of the company.

In Hawthornes' research (Bailey, Schermerhorn, Hunt & Osborn, 1991) into the factors that motivate employees, he concluded that productivity is less effected by changes in the work environment, than by the attitudes of the workers themselves. Specifically, relationships between workers and their supervisors were found to be more significant.

Peters and Watermans' (Kreitner, 1996) eight attributes of excellence support this. Productivity through people by fostering a family feeling coupled with dignity and respect is listed as one of the key attributes.

According to Blaney (1994), HIV/AIDS brings about low morale, fear and triggers irrational things in people. Proactive management can prepare a workplace for HIV/AIDS issues and thereby minimize work disruptions and morale problems. In order for managers to make effective and efficient utilization of the workforce to meet the business

objectives, it must prepare managers to deal with issues related to the workplace. This is especially required in a country where it is estimated that around fifteen to twenty percent of the workforce is infected with HIV/AIDS (Whiteside & Sunter, 2000). Failing to do this will jeopardize the relationship between management and staff.

The most commonly known theory of motivation is Maslow's hierarchy of needs theory (Robins, Bergman & Stagg, 1997). He hypothesized that within every human being there exists a hierarchy of five needs:

- Physiology needs – food, drink, shelter, sexual satisfaction, and other bodily requirements.
- Safety needs – security and protection from physical and emotional harm.
- Social needs – affection, belongingness, and acceptance.
- Esteem needs - internal self-esteem factors such as self-respect, autonomy and achievement; and external self esteem factors such as status, recognition and attention.
- Self-actualization needs – growth, achieving one's potential and self-fulfillment; the drive to become what one is capable of becoming.

As each need is substantially satisfied, the next becomes dominant. If one wants to motivate someone, according to Maslow (Robins *et al*, 1997), one needs to understand

where that person is in the hierarchy of needs and focus on satisfying needs at or above

that level.

In order to motivate people infected with HIV/AIDS a full understanding is required of the needs of employees and where they fit in the hierarchy. Such knowledge of and attitude towards HIV/AIDS and people infected with HIV/AIDS is extremely critical.

The rationale for business to prioritize HIV/AIDS as a management issue is based on HIV/AIDS having a direct impact on the social and economic issues, such as occupational health and safety, staff morale, human rights and the availability of a productive and able workforce. According to Maphosa (1996), the most important social responsibility of business organisation is to their workforce.

SASA is a non-profit organization and approximately thirty percent of the employees are based in the customers' premises. In most instances these SASA employees live in the same small communities as that of the customers. As such SASA is in the unique position of being very visible to its customers. This provides opportunities but also poses a threat especially if SASA's staff is not happy, or do not perform, its customers will know about this.

From the theoretical framework set above it is noted that a major part of a managers responsibility is working with/through the workforce. If a manager is able to do this both effectively and efficiently, it has a direct impact of productivity and ultimately profit.

2.2 HIV/AIDS is a Management issue

Since HIV/AIDS has a major impact on the workforce and affects the day to day running of operations, it is therefore a management issue.

A myth that exists in industry is that HIV/AIDS is a soft business issue best handled by the Human Resources Department (Whiteside & Sunter, 2000). The reality is that HIV/AIDS is going to have a significant impact on bottom-line profits and needs to be part and parcel of line management's strategic thinking and decision-making.

Whiteside and Sunter (2000), lists the following as motivation supporting the previously mentioned statement;

- High rate of absenteeism related illness and time off for family reasons has a direct impact of production. This consequently has an effect on profits.
- The morale of the workforce is sagging due to colleagues dying and HIV/AIDS infected employees knowing that death is near.
- Sick workers are less productive and cannot do jobs that require physical exertion.

Reassigning, accommodating, reducing or restructuring benefits, and dealing with other employees' fears and concerns raise legal and moral issues that challenge businesses affected by employees infected with HIV/AIDS (Petesch, 2003).

According to Dr. Denis Cronson of Health InSite (reported by Lundin 2003), the Human Resources Department is usually lumped with the task of dealing with HIV/AIDS

infected employees. This is because HIV/AIDS is seen as a Human Resources problem or a social investment issue. This is wrong, argues Cronson (reported by Lundin 2003), who says that HIV/AIDS must be a top-level core strategy issue, which therefore needs the involvement of managers.

The case for HIV/AIDS being a critical management issue is further strengthened since organisations are deprived of the following as a result of HIV/AIDS:

- Intellectual property
- Continuity of competence
- Institutional memory

These can be major threats, especially in an organisation like SASA, which provides specialist services that requires in-depth knowledge.

In keeping with the above stated theories and discussion, good management therefore means looking ahead, minimizing costs, capitalizing on opportunities, investing in employees, striving for employee satisfaction and establishing a positive image. With regards to HIV/AIDS and its effect on the business, this can only be achieved through an effective and all encompassing HIV/AIDS workplace program.

2.3 HIV/AIDS Workplace Programs

The global spread of HIV/AIDS and the associated impact on business and its stakeholders has highlighted the urgent need for business to respond to the epidemic. According to Piet Piot (UNAIDS, 2000), executive director of UNAIDS, business is in a unique position to respond to the epidemic because of its contact with employees. There is much that businesses can do and the benefits of such action go well beyond the workplace.

In response to the bleak statistics surrounding the HIV/AIDS epidemic most companies have implemented HIV/AIDS workplace programs.

2.3.1 Guides or Manuals for Employers

In recent years there has been a proliferation of guides/manuals on the subject of the management of HIV/AIDS in the workplace that aims to be valuable tools for business managers. Many of these resources are current and easily accessible through various HIV/AIDS organisations and the World Wide Web. A review of some of these guides/manuals is important in order to establish how much of emphasis is placed on the training of line managers.

The Global Business Council on HIV/AIDS (2000), together with The Prince of Wales Business Leaders Forum and The Joint United Nations Programme of HIV/AIDS

developed a document titled *The Business Response to HIV/AIDS*. This document contains tools to guide effective, efficient and need-specific responses to HIV/AIDS. It also reviews company responses to the epidemic, identifies the key lessons learnt and provides models of good practice. There is very limited reference to the importance of training managers to address workplace issues on HIV/AIDS. From the seventeen companies reviewed only one makes specific reference to training of managers.

In the International Labour Organisation's (ILO) Code of Good Practice on HIV/AIDS and the World of Work (ILO 2002), it is affirmed that training must be adapted to suit different groups in the workforce i.e. workers and managers. The report details the particular training that is required for managers and supervisory staff. A review of case studies found in the ILO website shows the widespread use of the training chapter of the Code of Practice with an apparent lack of mention of the training of managers and supervisory staff. Once again it would appear that organisations are very good at providing education and training for the general workforce but ignore the specific needs of the managers when it comes to managing HIV/AIDS infected employees.

The Workplace HIV Program, An Action Guide for Managers (Rau 2002) gives a comprehensive guide on all aspects of implementing HIV/AIDS programs. Rau (2002) has one chapter dedicated to managing the impact of HIV/AIDS on a company and details the need for managers to be actively involved in understanding all aspects related to managing HIV/AIDS infected employees and managing workplace programs. The Rau (2002) report contains eight case studies to demonstrate HIV/AIDS programs but none of

them makes any reference to the importance or need for training managers to deal with HIV/AIDS infected employees.

From the previously mentioned it is evident that while some guides or manuals on HIV/AIDS in the workplace advocate the specific training of line managers, this need tends to be overlooked by businesses when they implement HIV/AIDS workplace programs.

2.3.2 HIV/AIDS Workplace Programs

The researcher has done extensive investigation on the current HIV/AIDS workplace programs that are being used by companies both locally and internationally. The following is a review of a few of the numerous programs used. These programs are reviewed with specific focus on the extent to which training managers are included as part of an overall HIV/AIDS workplace program.

a) AIDS in the Workplace – Report by Canadian AIDS Society - CAS (December 2000)

This report has been selected on the basis that it investigated numerous companies in a wide spectrum of industrial sectors.

In 1999, the Canadian AIDS Society was tasked to examine how companies are dealing with HIV/AIDS in the workplace and, more specifically evaluate workplace programs. CAS used three different methodologies to complete its task

- Extensive web-based research to identify what other countries were doing. The research however focused on the United States, United Kingdom and Australia.
- In-depth interviews with companies that had HIV/AIDS workplace programs.
- Detailed discussion with experts to establish how employers should be reacting.

The report identified that the workplace needs are changing with regards to HIV/AIDS. Since the initial programs were introduced there is a great increase in the number of new infections and people are living longer as a result of treatment available. Therefore the programs that were developed, which mainly focused on basic education of employees, prevention of discrimination and ensuring access to appropriate drug coverage, are no longer fully valid. These programs failed to address the changing environment in the workplace.

The respondents to the research were asked to give advice to other companies regarding HIV/AIDS programs. Amongst other things, it was advised that attention must be given to the education of line manager on how to manage HIV/AIDS infected employees. The respondents were questioned on the type of training that was required. It was suggested that case studies be used to teach managers how to deal with various situations that arise. It was further suggested that such training include issues such as accommodation strategies, which are crucial to managing HIV/AIDS infected employees.

The shortcoming of this report is that the needs assessment of the managers is done with too much of a focus on the employees regarding policy and discrimination. No attention is given into the actual needs of the managers themselves.

b) Company Best Practice

There are two comprehensive reports regarding company best practice on HIV/AIDS in the workplace. The significance of these reports to the research is that they investigated the content of the companies HIV/AIDS programs.

In the first report by Loewenson (1999), *The Best Practice of Company Action on HIV/AIDS in Southern Africa* is examined. From all the companies reviewed in this document, only one company was reported as paying significant attention to training of managers to manage HIV/AIDS employees. Mondi Kraft had identified the critical importance of having an all-encompassing HIV/AIDS workplace program that included the training of line managers.

Mondi's HIV/AIDS programs included intensive training of both employees and managers. Line managers training included a two-year examinable program, which covered various aspects of AIDS and the management of its effect on the company. Pre- and post-training evaluation was done via a questionnaire to assess the change in knowledge and attitude of the managers.

The second report by George (2002), on *Company Action on HIV/AIDS in the Durban Metropolitan Area*, was modeled on the best practice report by Loewensen (1999). The report includes case studies of ten companies HIV/AIDS Workplace programs. While the author concluded that many companies had some type of HIV/AIDS workplace

programs, none of the companies included the training of managers to deal with HIV/AIDS infected employees as part of the program.

Daly (2000) reported that one of the lessons learnt from experiences with HIV/AIDS workplace initiatives was that the training of managers to respond to HIV/AIDS was critical. The comment is made in light of a review of a range of business initiatives on HIV/AIDS in the workplace.

In his presentation in Kenya, on *HIV/AIDS The Management Challenge*, Badcock Walter- P (June 2002), states that 20 years of response time has been lost by focusing on awareness, prevention and treatment without a sustainable management context. He advocates that managers must be equipped to respond at all levels.

The previously mentioned review corroborates the need for a change in the focus of HIV/AIDS workplace programs to include the training of line managers to manage HIV/AIDS infected employees.

2.4 Knowledge and Attitude Survey

An investigation of the relevant literature relating to the objectives of this study was performed in order to gain insight on what to include in the questionnaire. After consultation with various experts and pertinent literature, the researcher found that there is a survey, commonly referred to as the KAP survey (Knowledge, Attitude and Practice

Survey) that is widely used both locally and internationally. For the purposes of this research only the knowledge and attitude part of the surveys is examined.

In order to ensure that the appropriate questions on knowledge and attitudes are used to prepare the questionnaire, the researcher used various sources. It must be noted that there are numerous KAP surveys, all using different questions but testing the same dimensions.

A review of some of the local and international KAP studies relating to HIV/AIDS is found hereafter.

2.4.1 Public KAP Studies

Torabi's (1999) study of the public's knowledge and attitude in Indiana USA, consisted of 15 knowledge and attitude questions. The internal consistency using Cronbach's alpha was found to be 0.66. Data analysis included the use of descriptive and inferential statistics. Results of the study indicated a decrease in the level of knowledge and no significant change in attitude.

Kusantan's (2000) KAP survey of the Zambian community found that knowledge of HIV/AIDS was only 30%. The findings regarding attitude is not clear in this report. There is also no clear distinction between knowledge and attitude questions.

2.4.2 Business KAP Studies

It was previously stated that according to the Loewenson (1999) report, Mondi Kraft is the only company that paid special attention to the training of line managers. The following information was obtained from the company's internal reports.

The Mondi training program involved pre- and post-evaluation via a questionnaire to assess the change in knowledge and attitude of the managers. The first questionnaire in 1997 consisted of 20 knowledge and 23 attitude questions. The second questionnaire in 2001 consisted of 10 knowledge and 6 attitude questions. The difference in the number of questions was due in large part to a shift in focus towards assessing the company's strategic approach to HIV/AIDS.

The first survey found that employees have a very good knowledge (72% correct answers) and the second found that the knowledge has improved to 83%. The results regarding attitude are disturbing, since after the training an increase in positive attitude of only 7% (from 51% to 58%) is noted.

DaimlerChrysler's (2001) KAP survey shows a negative attitude towards people with HIV/AIDS and an 80% knowledge level. The report has excellent information relating to limitations and lessons learnt throughout the survey, which is very useful to this study.

South Deep Mining (2002) conducted a KAP survey of 170 general workers and 16 line managers in 2001. While the report, is quite detailed regarding the analysis of individual

questions, there is no overall conclusion reported. It is stated that conclusions were to be done once interviews with the executive were complete. It would appear that the report has subsequently not been updated. It is a pity since the overall findings would have been greatly relevant to this study. It should be noted that there is inconsistency in the report since the sample size did not include the executive but the methodology makes reference to interviews with the executive.

2.4.3 Validity of KAP studies

Smith's (1993) paper on *The Limited use of KAP-style questionnaires in HIV/AIDS research* has been widely commented on. From the debate on this, it is evident that the limitation is related to the use of the results of KAP questionnaire in the modeling of the HIV/AIDS epidemic in the population. Since this research is a study of the entire population and is also not assessing practice, this limitation is therefore not relevant to this study.

2.5 Information on AIDS

A review of the relevant literature relating to the objectives of this report was performed in order to gain knowledge of what to include in the questionnaire.

After consultation with the experts and the pertinent literature the researcher predominantly used the following sources to ensure the correct facts related to knowledge

of HIV/AIDS was used to code the questionnaire.

- www.abconaids.org
- www.businessfightsaids.org
- www.hivatwork.org
- The book - AIDS in the workplace in Southern Africa - Dr. Clive Evian
- Mrs. T. Moodley from Futuristic Training Solutions
- Myths and Facts on HIV/AIDS – Published in Bright Ideas, Mattfeld *et al*, (2000).
- Center for Disease Control, Fact Sheet on HIV/AIDS: Frequently asked questions.

Together with the above the researcher also used the answers from the KAP studies that were discussed under, 2.4 Knowledge and Attitude Surveys.

2.6 Summary

The literature review has examined the theoretical basis for the research and related this to the management of HIV/AIDS infected employees. A review of the HIV/AIDS guidelines for employers revealed that while training is advocated in the guidelines, companies do not always implement this. An examination of HIV/AIDS workplace programs indicated that there was not sufficient emphasis placed on training of line managers. Previous KAP studies were examined to determine what to include in the questionnaires. The research methodology used in the study is discussed in the next chapter.

Chapter Three

3. Research Methodology

"We felt it was important to deal with the issue (HIV/AIDS in the Workplace)
early on in the game lest we be faced with a sensitive
human relations problem and have no idea how to handle it...
It makes common sense, it makes good business sense."

Robert West, V.P. Human Resources, Great West Life Assurance Company
Reported by Blaney S. (1994)

This chapter describes the procedure by which the raw data used in this study is collected and interpreted. It discusses the rational for selecting the chosen research method, the development of the questionnaire, the mail out procedure and the data analysis techniques that is utilized. It concludes with a brief discussion of any ethical implications raised by the study.

3.1 Type of study

The study that is conducted is a field study since it involves the collection of information from people in their natural environment (Cooper & Schindler, 2001).

3.1.1 Research Design

Zikmund (1997) identifies three general types of research design as exploratory, descriptive and causal. The main focus of this research study is to examine the knowledge and attitude of line managers and to assess their training needs in the context

of managing HIV/AIDS infected employees. The class of research design is therefore descriptive since the problem is structured with precise rules and procedures (Ghauri, Gronhaug & Kristianslund, 1995).

3.1.2 Research Methodology

The study uses a quantitative research methodology. With the use of a quantitative research methodology the researcher is able to remain objective and reaches an understanding of the scenarios by an analysis of the data which can be in the form of numbers, counts and measurements of things (Monette, Sullivan & DeJong, 1998). The quantitative method is appropriate in research where the researcher has an in-depth knowledge of the topic, and the researcher must have good control of the research situation (Babbie and Rubin, 1993). The quantitative method is highly structured and designed to provide precise information of the research topic (Monette *et al*, 1998).
Questionnaires or interviews are generally regarded as the main data collection procedures to be used for this type of research (Zikmund, 1997).

3.2 Data Collection Method

A questionnaire is defined as a pre-formulated written set of questions to which respondents record their answers, usually within rather closely defined alternative (Sekaran, 2000).

The research instrument is a self-administered questionnaire that is constructed for this study. The questionnaire comprises of four sections with forty-three closed ended questions and two open questions. The questionnaire is e-mailed to 146 line managers and posted via internal mail to 18. The respondents for the e-mailed questionnaire have the option of electronic or print response. Bi-modal data collection that offers a choice of print or e-mail has the advantage of convenience and self-preferences (Kiesler and Sproull, 1986).

A review of studies using online (e-mail) surveys indicates that they are becoming more feasible and very cost effective. Besides the speed and cost saving of this data collection method, there is a tendency for e-mail to elicit more candid self-disclosure (Kiesler and Sproull, 1991). Both print and e-mail versions of the questionnaire contain the same content, but varies in the instructions for denoting choice of response.

3.2.1 Justification for Using a Self-Administered Questionnaire

The following factors specific to SASA justify the use of a self-administered questionnaire.

- The study is conducted amongst the twelve divisions of SASA and the operating centers, which are located throughout Kwa-Zulu Natal and Mpumalanga. Approximately 30 percent of employees are in rural areas.

The most significant advantage of a self-administered questionnaire is that it can be

sent to a population that is dispersed over a wide geographic area, and can be answered by the respondents at their own convenience (Neuman, 1997).

- The population consists of 164 line managers.

  According to Trochim's (2000) *Research Methods Knowledge Base – Survey Research*, the sample size plays an important part in deciding which survey method to use. To conduct personal or telephonic interviews for 164 line managers would be costly and extremely time consuming.

- The factors relating to the type of respondents in the population i.e. educated line managers who are computer literate.

  In deciding the data collection method consideration must be taken of the population issues related to language, literacy, enumeration and cooperation (Trochim, 2000).

- The nature of information solicited.

  Self-administered questionnaires overcome the problem of interviewer bias as well as reducing the respondent's likely reluctance to convey negative or controversial information (Babbie, 2001). This is particularly true for research related to sensitive subjects such as HIV/AIDS.

  According to Trochim (2000), the nature and content of the information solicited determines the data collection method.

- Lastly, the issue of confidentiality.

  Self-administered questionnaires offer respondents assurance of complete anonymity (Babbie, 2001). If the respondents do not feel threatened or are certain that there can be no repercussions from filling in the questionnaire, then the validity and reliability of the results of the survey is greatly improved.

3.2.2 Limitations

Despite the advantages of self-administered questionnaires, a number of limitations must be acknowledged. As people are not always willing to complete and return questionnaires, one of the biggest problems is the low response rate (Sekaran, 2000). While Neuman (1997), considers a response rate of 10 to 50 percent to be acceptable, this raises obvious concerns with generalization. According to the Mondi report (2001), an acceptable response rate for KAP studies on HIV/AIDS is 17 percent.

Since the researcher has no control over the conditions under which the questionnaire is completed, the questions may be misinterpreted or even answered by someone other than the targeted respondent (Neuman, 1997). Another weakness is that the respondents are limited in terms of flexibility. Unlike interviews that can be modified quite quickly if necessary, questionnaires are less flexible and therefore require more preliminary thought and preparation into their structure and content.

The validity of questionnaires, or the degree to which they produce genuine and credible information, is generally lower than in qualitative research methods such as interviews (Sommer & Sommer, 1997). This is because interviews and observations allow the

researcher to actually be there and 'feel' what the respondent is trying to convey, which can result in more detailed illustration.

3.3 Questionnaire Design

3.3.1 Overall Design

After conducting secondary data research and examining the relevant literature, a questionnaire is designed to examine the knowledge, attitude and training needs of line managers. The questionnaire is an adaptation of various KAP questionnaires used both locally and internationally. For the purpose of this research only the knowledge and attitude portion of the questionnaire will be used.

The questionnaire is constructed using input from various studies and by combining the strengths of what was most successful. The comments made by the various researchers regarding the relevance and wording of all questions was examined during the designing of the questionnaire.

The researcher used experts in the field of HIV/AIDS training as well as the work done by Deep South Mining (2002), to construct the questions on training needs.

3.3.2 Data Collection procedure

The data collection procedure will conform to those by Dillman (1978, 1991), which is found to be most effective in obtaining responses for questionnaires. These procedures

include the use of a covering letter and follow-up letter that is carefully worded and timed in a manner that supports the completion and return of the questionnaire.

3.3.3 Minimising the effects of Limitations

Given the low response rates and other limitations often associated with mail out questionnaires, a number of specific issues are considered regarding the questionnaire design.

To establish the academic nature of the study, a covering letter accompanies the questionnaire detailing the academic reasons for the research (refer to appendix 1). The covering letter indicates the time it would take to complete the questionnaire (approximately 20 minutes) and also details to the respondents the background and benefits of the research. The letter also served to convey the researcher's appreciation for the respondent investment in time, and the courtesy shown by responding to the questionnaire (Leedy, 1989). The influence of the covering letter on the response rate has received almost no experimental attention, although the covering letter is considered an integral part of the mail survey. It is the most logical vehicle for persuading individual to respond (Cooper and Schindler, 2001).

In total the questionnaire is six pages in length. This accorded with the argument that the length of questionnaire should not exceed six pages (Zikmund, 1997). However, according to Cooper and Schindler (2001), although common sense suggests that short

questionnaires should obtain higher response rates than longer ones, research evidence does not support this view.

The researcher therefore investigated KAP studies both locally and internationally to obtain a balance between minimum number of questions with maximum validity of results and constructed the questionnaire accordingly. It should be noted that the length of questionnaire varied considerably, from 30 pages to 5 pages. The average however appears to be in the region of six to eight pages. A questionnaire longer than this is likely to be perceived to be time consuming and onerous by a busy management professional.

A stamped self-addressed envelope is included in the questionnaire that is posted to the 18 line managers who were not on e-mail. This encourages response since it simplifies questionnaire return (Linsky, 1975).

Respondents generally want to look good in the eyes of others. On sensitive subjects some will 'spin' the response to answer in a socially desirable manner (Trochim, 2000). Since both the e-mail and posted questionnaires are anonymous, this will hopefully reduce such tendencies. The cover page of the questionnaire also appeals to respondents to answer as honestly as possible. It must however be noted that according to Kanuk and Berenson (1973), experimental evidence shows that the promise of anonymity, either explicit or implicit, has no significant effect on the response rate. In research relating to sensitive topics such as HIV/AIDS, anonymity does however improve the reliability of the data collected.

The following strategy is used to further improve the response rate.

- Prior to the questionnaires being sent out, the Human Resources Executive sends out a letter to all line managers informing them of the research and encouraging them to participate. Also indicated is the valuable role that the research will play in the attainment of the organisation's strategic objectives in respect of its HIV/AIDS strategy.

- The questionnaire is sent out with a two-week deadline. The deadline is important since from the researcher's experience in SASA, setting a deadline (more importantly a short one) improves response. If managers are given too long a deadline, they tend to never get to the issue since it is deemed not critical. Setting a two-week deadline also helped to make way for a follow-up letter after two weeks with a one-week extension.

- The follow up letter is carefully worded such that it did not criticize the managers for not responding but sympathized with their hectic schedules. The letter also contains persuasions to respond which included quotes of encouragement from prominent people. This gave those managers who were away or too busy another chance to respond.

- Finally, a letter is sent out thanking the managers who responded and informing managers of the response rate. One of the well-liked and credible executives also sent

out a challenge to improve the response rate.

3.3.4 Content of the Questionnaire

The questionnaire comprises of four sections;

- Section A - Demographic information is collected via ten closed questions.
- Section B – Level of knowledge is examined by 12 closed questions.
- Section C – Attitude is assessed through 12 closed questions.
- Section D - Training needs is evaluated via 9 closed questions and 2 open-ended questions.

The two qualitative open-ended questions are intended to allow the respondent the opportunity to reflect and give answers free of the limitations imposed by fixed-choice closed questions. The questions in section A include dichotomous and nominal questions.

The response format for the closed questions includes a five-point Likert scale with one being “Strongly Disagree” and five being “Strongly Agree”. The response for some questions are reverse scored (refer appendix two a copy of the questionnaire). The reason for this is that for certain questions “Strongly Agree” is actually the most positive response and therefore must have the highest score. These questions measure at an interval level.

The content of the questionnaire is examined to ensure that it met all the criterion detailed in the various literature referenced. Precautions are taken to ensure that all aspects relating to the questions wording, structure and placement is optimal to avoid confusion and improve the response rate.

3.3.5 Pre-Testing

In order to establish validity of the questionnaire the following is done.

- A field test is done of the first draft of the questionnaire. Three managers from another company (SASA customer) agreed to assess the questionnaire. The managers are not briefed prior to the questionnaire. They are merely given the questionnaire with the covering letter. Discussion, regarding the interpretation of each question and it's wording, is held thereafter. Changes are made to the first draft based on the feedback received, aimed at improving the clarity of the questionnaire.

- A pilot test is then conducted on the second draft of the covering letter and the questionnaire, using a group of six managers. The six managers are representative of the population to ensure that all aspects are accounted for. The questionnaire together with the covering letter is firstly administered to each manager individually. The time taken to complete the questionnaire is measured. The time ranged from 12 minutes to 35 minutes. Thereafter a group discussion is held to assess the relevance, wording and understanding of each question.

- Based on the feedback, numerous changes are once again made and the updated questionnaire and covering letter is tested on a further two managers. After this test no further amendments are required and the final questionnaire is now ready for distribution. The time taken for completing the answers in the questionnaire is 15 minutes.

3.4 Census

This study is conducted throughout the twelve divisions of SASA. There is no sample selection since the questionnaire will be sent to all the line managers. The sample design is therefore a census since the total count of all elements in the population is included in the research (Cooper *et al*, 2001). This is justified by the conditions relating to budget, time availability and population size favours the use of census.

3.5 Census Size

The census comprises of 164 line managers, all of whom fall within the Paterson Grades of C4 to E band.

According to the Mondi (2001) report, the norm for returned questionnaires in KAP surveys is 17%. Mondi (2001) had a response of 39%. The researcher is hoping to get a 50 percent response rate.

The justification for this is that the questionnaire will be sent to line managers and the research is not examining practice. Practice related to sexual behaviour and HIV/AIDS is an extremely sensitive issue, which results in lower responses rates. Further justification for a higher response rate is the strategy to be used to improve the response rate.

3.6 Data Analysis

The data collected from the questionnaires is coded and then entered into a computer data file. The data coded from the questionnaires is entered twice for validation. All questionnaires are evaluated for completeness and central tendencies.

Quantitative data analysis is performed as follows:

- Descriptive statistics includes frequencies, measures of central tendencies and dispersion.
- Inferential statistics includes correlation analysis, t-test and analysis of variance.

Data analysis is performed using the SPSS program version 11.5.

Qualitative data is analyzed using content analysis.

3.7 Ethical considerations

According to the Intercountry Consultation of African Network on Ethics and HIV (1994), the interests of the research subjects or communities should be paramount in

HIV/AIDS research. Research should be based on free and informed consent, be non-obtrusive and non-coercive, and the results should be made available to the community for timely and appropriate action.

In line with the previously mentioned as well as the research ethics policy and guidelines from the Durban Institute of Technology, ethical issues related to the research is identified.

Specific issues related to identity of the respondents and confidentiality of the information collected is addressed in the introductory letter to the respondents (see appendix one).

The issue of informed consent is addressed in both the introductory letter as well as the cover page to the questionnaire (see appendix two).

The results of the research is be made available to all respondents by placing the statistical results on the SASA Internet Management Notice board as well as placing a copy of the dissertation in the SASA library.

3.8 Summary

The research design is descriptive and the type of study is a field study. The research methodology is quantitative and a self-administered questionnaire is used for data collection. The questionnaire is e-mailed and posted to the respondents. The quantitative data is analyzed using descriptive and inferential statistics and the qualitative data by content analysis. The data collected via the questionnaire is presented in the next chapter.

Chapter Four

4. Presentation of Results

"Unlike the person with AIDS, co-workers didn't come close to dying, but they paid a price for the illness in stress and overwork. Other colleagues did too. During the four-year period...we saw a 200% turnover in unit personnel."

One manager who faced two cases of AIDS in his department.
Reported by Blaney, S. (1994)

In this chapter a discussion of the response rate is firstly undertaken. The quantitative data is captured onto an MS Excel spreadsheet and then uploaded into the SPSS program. The results from the statistical analysis of the quantitative questions are presented in graphic or tabular format. Finally, the main findings from the content analysis of qualitative questions are presented.

4.1 Response Rate

A total of one hundred and sixty four questionnaires were either e-mailed or posted to the managers. An initial deadline of the 10 October 2003 was given. On the 10/10/03, an e-mail was sent informing the managers of a forty percent response rate and encouraging them to respond by the extended deadline of 17 October 2003.

On the 17/10/03, an urgent appeal was sent out informing managers of a forty nine percent response rate and informing them that this is the last opportunity to make their voice be heard on this issue. A final deadline of the 24 October 2003 was given. This appeal was supported by one of the executive managers who encouraged people by

informing them that the questionnaire was user friendly and not time consuming. By the 24/10/03, a 64.63 percent response was achieved.

The respondents were given the option of electronic response if they were comfortable revealing their names. If they wanted to remain totally anonymous they were given the option of sending the response via internal/external mail.

A total of 59 of the 106 respondents (56 percent) responded electronically. Ten managers printed the questionnaire but sent the response with a note and their name attached. The remaining 37 respondents (35 percent) posted their responses anonymously.

It is noted that most of the managers who printed out the questionnaire and sent it via post are older (above fifty). This suggests that it is possible that older managers are reluctant to use the electronic format.

The overall percent of respondents that are comfortable revealing their identity is 65 percent. Therefore 35 percent of the respondents preferred to maintain complete anonymity.

4.2 Biographical Results

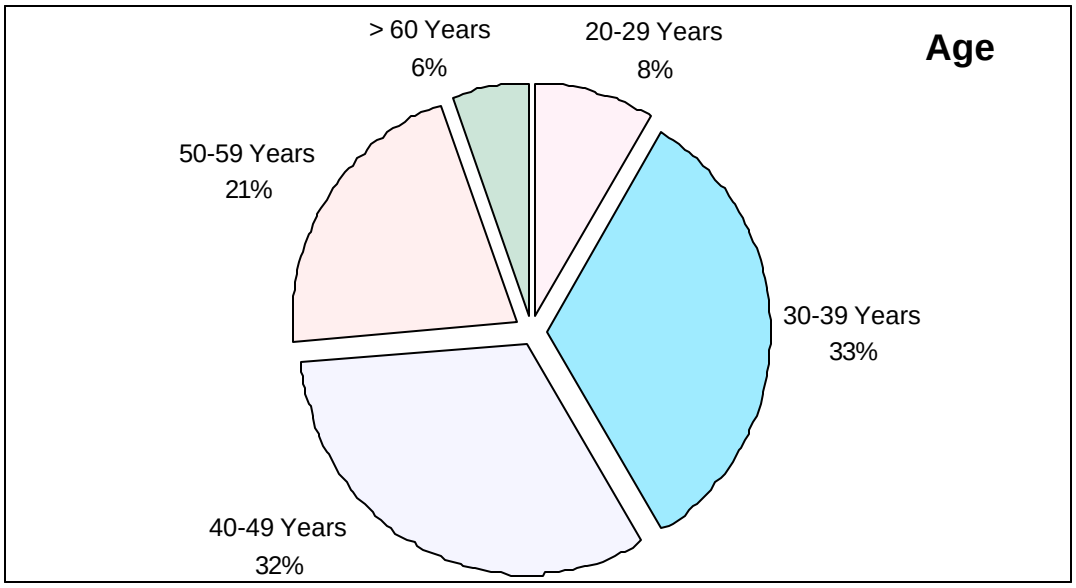
While respondents were assured of anonymity some managers did not answer certain question under the biographical information since they felt that this would inadvertently reveal who they are. The researcher received phone calls from some managers who felt that should they fill in details in the biographic section, the response could be traced

back to them. These respondents were encouraged to respond and were told to leave out any information they were not comfortable revealing. It is suspected that some of these managers did not respond.

Table 4.2 Summary of Response

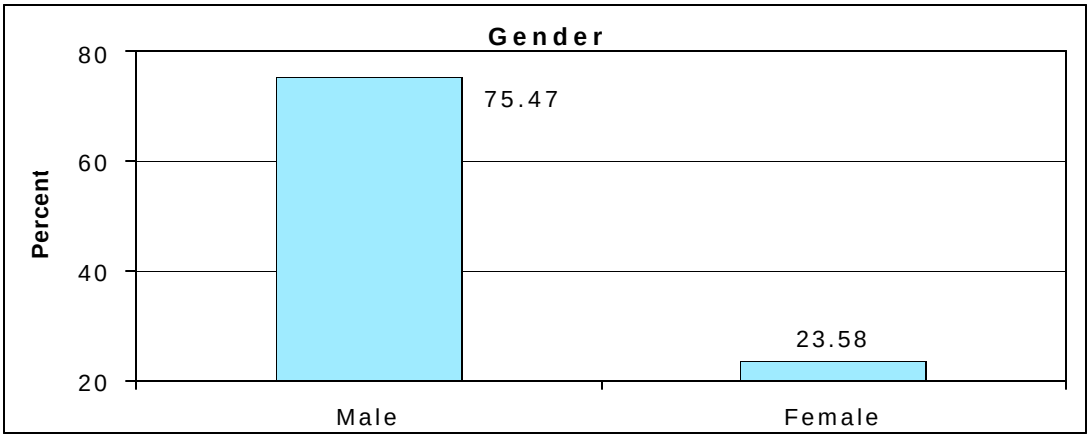
	Number	
	Valid	Missing
Age	106	0
Gender	105	1
Race	105	1
Marital Status	105	1
Grade	104	2
Number of employees	106	0
Grade of employees	103	3
Number of years in position	106	0
Location of work	103	3
Classification of area	106	0

Figure 4.2.1 : Age



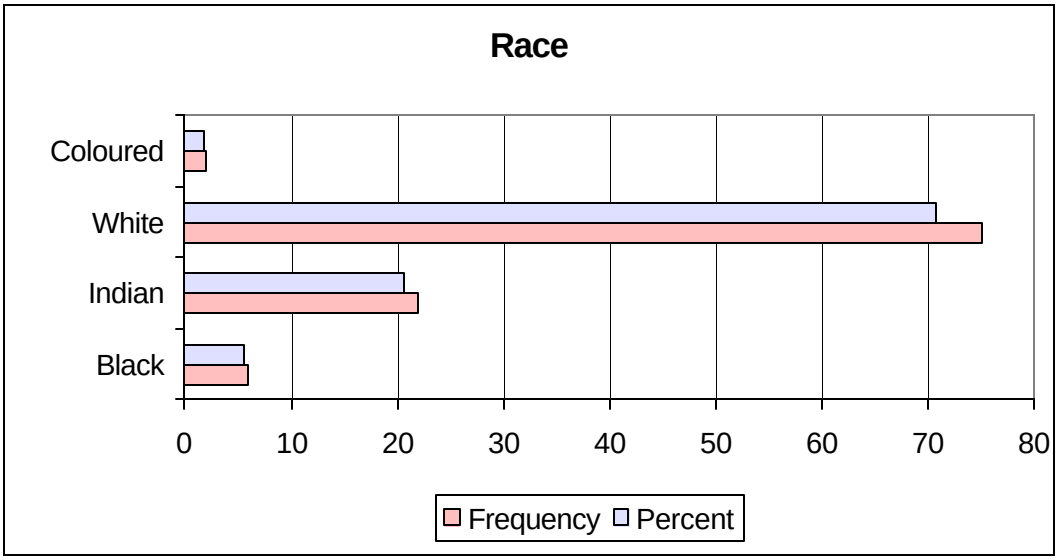
All the respondents answered this question. 65 percent of the respondents fell within the age group of 30 – 49 years.

Figure 4.2.2 : Gender



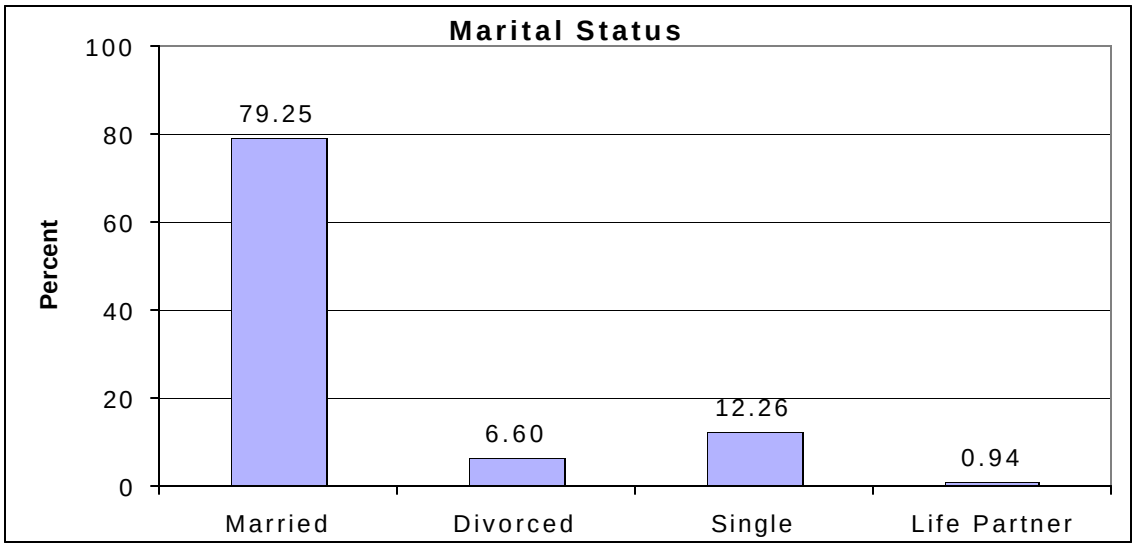
Looking at the overall profile of the population compared to the number of males and females that responded it is noted that more females responded to the questionnaire that males. Only one respondent did not answer this question.

Figure 4.2.3 : Race



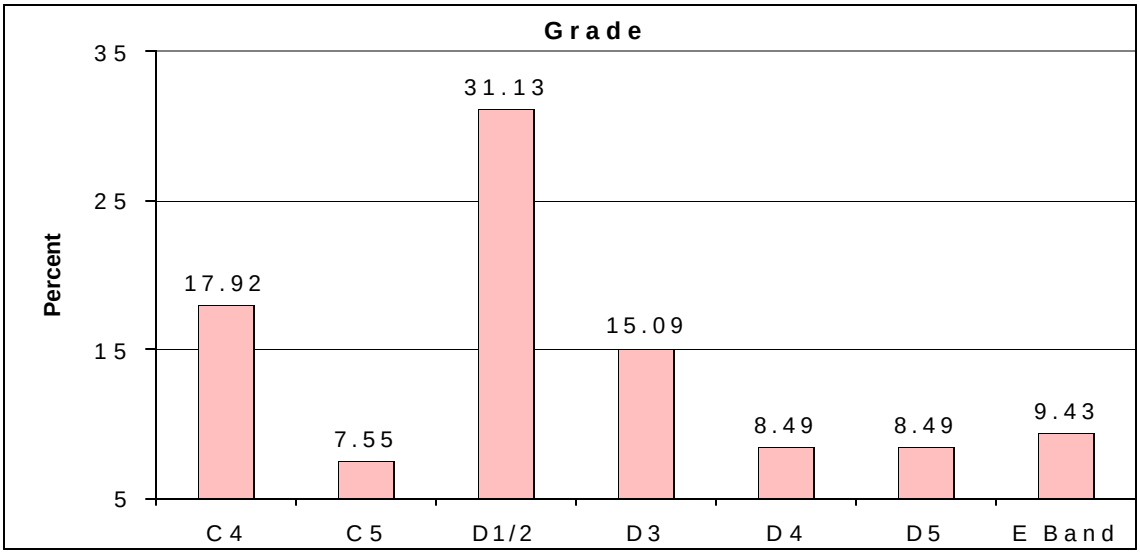
The spread of race in the figure is fairly consistent with the demographics of the population. Only one respondent did not answer this question.

Figure 4.2.4 :Marital Status



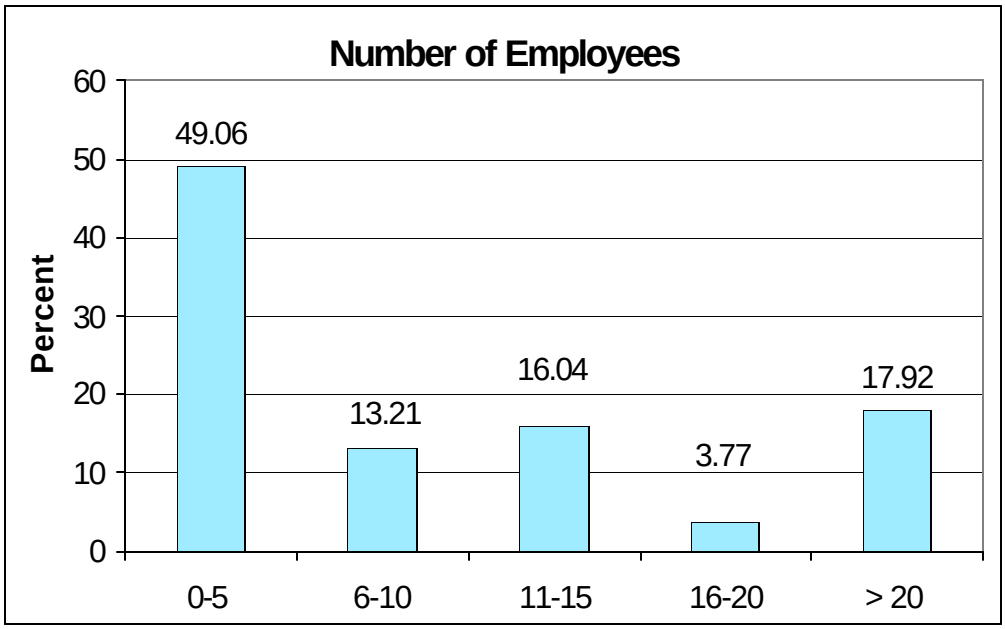
The majority of the respondents were married and one respondent did not answer this question.

Figure 4.2.5 : Grade



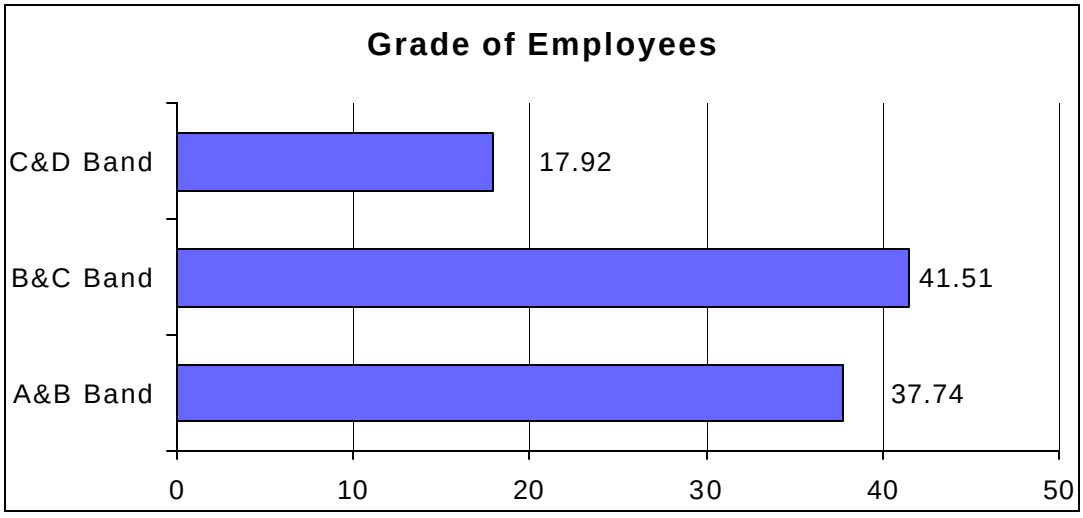
The spread of percentage per grade is consistent with the population and does not indicate that more D1/2 band people answered the questionnaire. Two respondents did not answer this question.

Figure 4.2.6: Number of employees



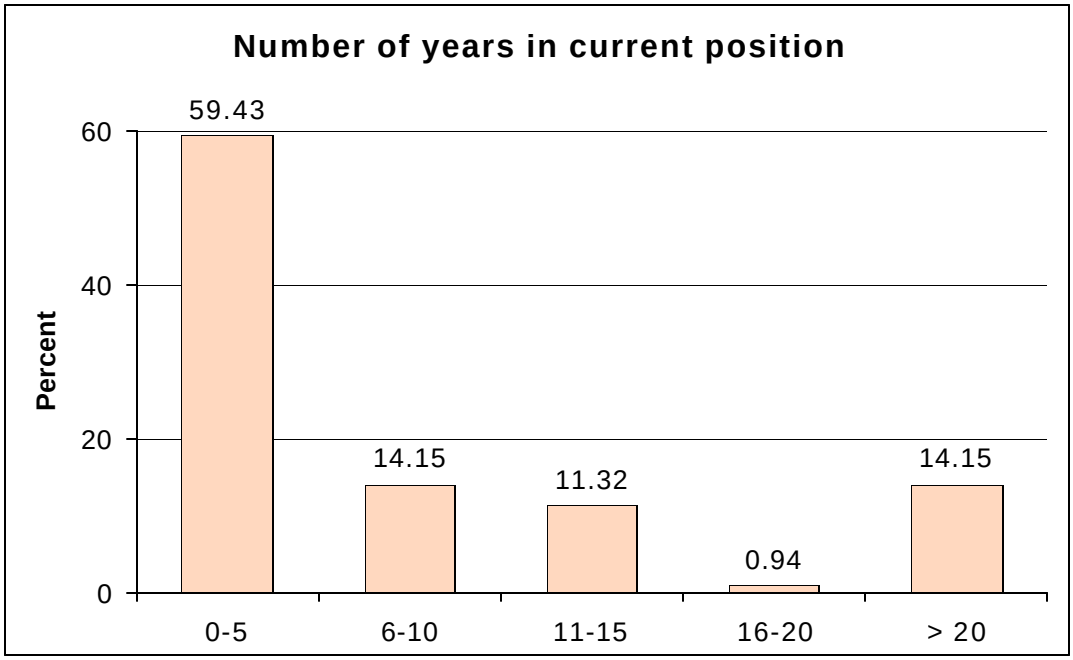
Almost half the respondents managed five employees or less.

Figure 4.2.7 : Grade of employees



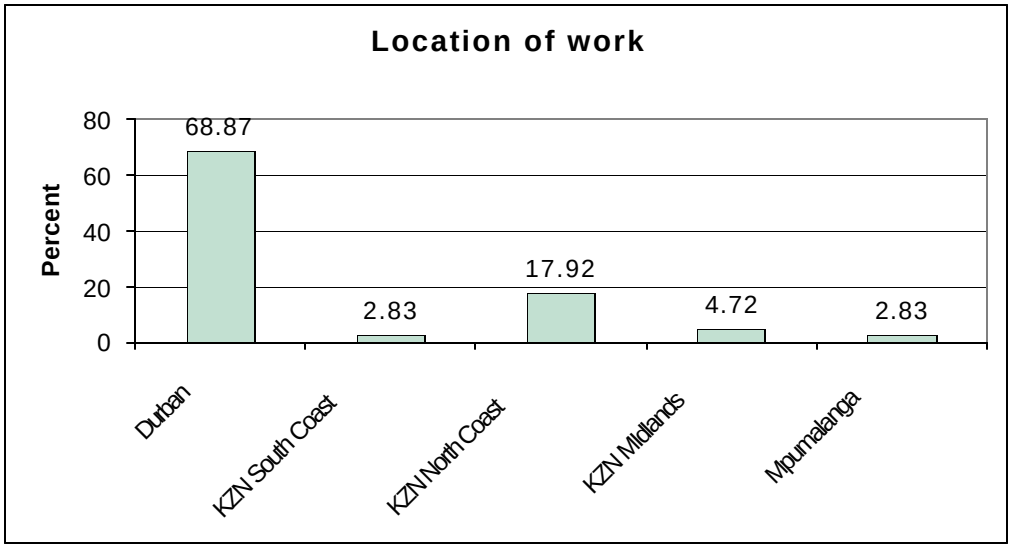
Three respondents did not answer this question. The majority of the employees managed by the respondents fell into the B & C band category.

Figure 4.2.8 : Number of Years in current position



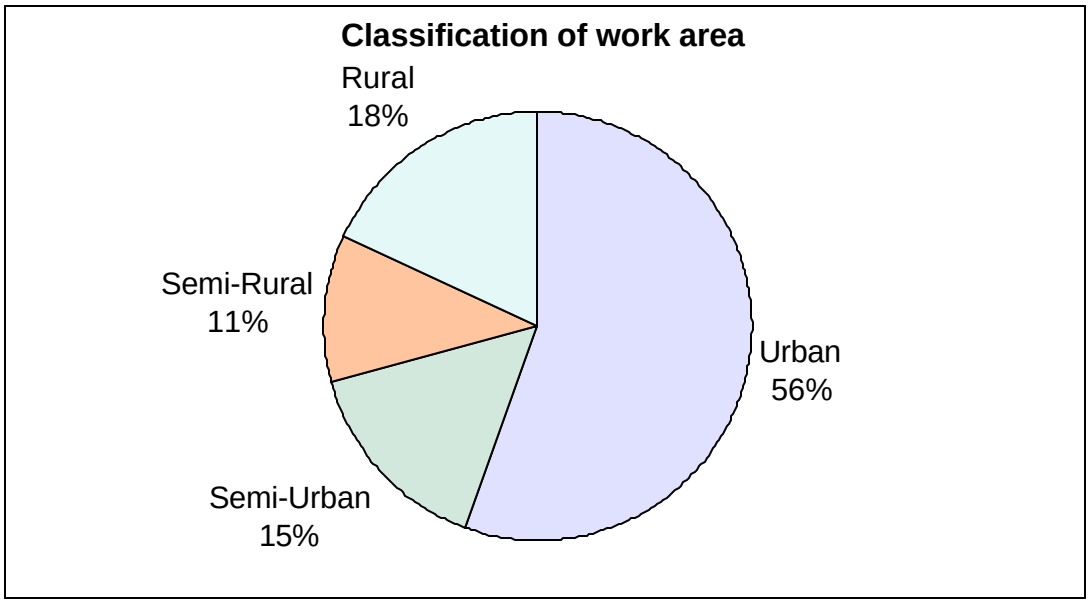
Almost 60 percent of the managers have been in their current positions for five years or less.

Figure 4.2.9 : Location of Work



Almost 30 percent of the managers work away from Durban, with the smallest percent being on the Kwa-Zulu Natal South Coast. Three respondents did not answer this question.

Figure 4.2.10 Classification of Work Area



There appears to be a contradiction between the information in the previous graph and the classification of the work area. Almost 69 percent of the respondents said that they were located in Durban but only 56 percent have said that their work area is classified as urban. It is therefore prudent to note that while some respondents have stated that they work in Durban, they are most probably on the outskirts and classify this as semi-urban. Note should be taken that while three respondents did not answer the previous question, all 106 respondents answered the area classification question.

4.3 Knowledge

In the table below the percent of respondents under each answer selected is listed.

The 106 respondents answered all questions under this section. The answer highlighted in bold indicates the correct answers which would result in a higher level of knowledge.

Table 4.3 Summary of Knowledge Answers

	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
B1. There is a difference between HIV and AIDS.	0	4.72	1.89	**45.28**	**48.11**
B2. The HIV virus causes AIDS.	0.94	2.83	0.94	**38.68**	**56.60**
B3. HIV/AIDS can be cured.	**48.11**	**44.34**	3.77	0.94	2.83
B4. People from poor families are more likely to contract HIV/AIDS.	**25.47**	**33.96**	10.38	26.42	3.77
B5. Someone can get HIV/AIDS by touching someone who has the virus.	**59.43**	**35.85**	0.94	0.94	2.83
B6. Using a condom is sufficient protection against getting HIV during sexual intercourse.	**18.87**	**41.51**	8.49	29.25	1.89
B7. HIV can be cured if diagnosed early and treated.	**38.68**	**42.45**	8.49	9.43	0.94
B8. People can be vaccinated against HIV/AIDS.	**47.17**	**46.23**	5.66	0	0.94
B9. Someone who is HIV positive can look healthy.	0.94	0.94	0	**48.11**	**50.00**
B10. You can get HIV/AIDS by drinking from the same glass used by an infected person.	**40.57**	**47.17**	6.60	2.83	2.83
B11. HIV/AIDS is going to affect every one regardless of our status.	0.94	1.89	0.94	**47.17**	**49.06**

B12. Which of the following indicates the way a person can contract HIV/AIDS?

	Y	N	U		Y	N	U
B12A) Intravenous Drugs	**81**	10	9	***B12G)*** Blood Transfusion	**91**	4	5
B12B) Having sex with an infected person	**100**	0	0	***B12H)*** Saliva	33	**51**	16
B12C) Not always using a condom	**93**	4	3	***B12I)*** Mosquito Bite	2	**83**	15
B12D) Infected mother to baby	**97**	1	2	***B12J)*** Homosexuality	65	**26**	9
B12E) Infected mother breast feeding	**72**	9	19	***B12K)*** Kissing on the lip	6	**85**	9
B12F) Having more than one sexual partner	**85**	8	7	***B12L)*** Infected needles	**97**	2	1

4.4 Attitude

The answer highlighted in bold indicates the correct answers which would result in a high positive attitude with regards to HIV/AIDS and people infected with HIV/AIDS.

Table 4.4 Summary of Attitude Response

	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
C1 If I had HIV/AIDS I would disclose this to the person closest to me.	1.89	0.94	7.55	**35.85**	**52.83**
C2 I am prepared to share toilet facilities with HIV/AIDS employees.	2.83	4.72	10.38	**55.66**	**25.47**
C3 I am willing to have an anonymous HIV/AIDS test.	0.94	3.77	2.83	**50**	**40.57**
C4 I would hug someone who I know has HIV/AIDS.	0.94	0	6.60	**50.94**	**39.62**
C5 I would allow someone who has HIV/AIDS to hold my child or a child I care for.	3.77	9.43	17.92	**41.51**	**26.42**
C6 People who practice unsafe sex deserve to get HIV/AIDS.	**29.25**	**39.62**	11.32	13.21	4.72
C7 Black people are more likely to contract HIV /AIDS.	**24.53**	**40.57**	9.43	21.70	0.94
C8 All people infected with HIV/AIDS are promiscuous (have many sexual partners).	**44.34**	**47.17**	3.77	0.94	2.83
C9 Compulsory testing should be carried out for the safety of everyone.	**10.38**	**28.30**	16.98	33.02	10.38
C10 For the protection of everyone, Management should divulge the HIV status of infected employees to other employees.	**27.36**	**50**	7.55	13.21	1.89
C11 I would render first aid treatment to someone whom has HIV/AIDS.	0.94	9.43	21.70	**55.66**	**11.32**
C12 If someone had HIV/AIDS it would matter to me how they contracted it.	**16.98**	**53.77**	11.32	16.98	0.94

4.5 Training Needs

Table 4.5.1 Summary Response to Meeting of Training Needs

	Yes	No	Suspect but don't know for sure.	Don't know
D1. Do you know anyone who has/had HIV/AIDS?	61.32	16.04	19.81	2.83

	Not a problem	Somewhat a problem	Serious Problem	Very Serious Problem	Don't know
D2. Where employees are, or you suspect that they are HIV positive, to what extent is their status affecting operations/the department?	18.87	21.70	19.81	7.55	30.19

	Strongly Disagree	Disagree	Don't Know	Agree	Strongly Agree
D3. General information on HIV/AIDS is readily available to all SASA employees.	1.89	14.15	14.15	61.32	8.49
D4. SASA provides sufficient information to assist me in managing the impact of HIV/AIDS in my operation/department.	3.77	30.19	16.04	47.17	2.83
D5. I have the necessary skills to discuss HIV/AIDS with my employees.	3.77	41.51	17.92	33.02	3.77
D6. As a line manager it is not my responsibility to deal with any issues related to HIV/AIDS and my employees.	24.00	66.00	6.00	7.00	2.00
D7. If one of my employees disclosed their status to me, I would know how to respond.	0	27.36	23.58	41.51	5.66
D8. If an HIV/AIDS infected employee approached me for advice/guidance; I would be able to do this effectively.	1.89	33.96	21.70	36.79	3.77

D9 Respondents were informed that the following training (D9A to D9F) could be made available to assist in the managing of HIV/AIDS infected employees. They were requested to indicate which aspects of the training are required. The answers in bold indicates a higher need for training.

Table 4.5.2 Summary of Response to Specific Training Needs

	Least Important	Somewhat important	Not required	Important	Highly Important
a) The facts, myths, and impact of HIV/AIDS.	2.83	10.38	11.32	**51.89**	**23.58**
b) The legal and safety aspects of managing HIV/AIDS infected employees and the risks in the workplace.	0	7.55	0.94	**58.49**	**33.02**
c) The Business impact of AIDS- reduced productivity and costs.	0	10.38	7.55	**59.43**	**22.64**
d) Counseling training to enable managers to deal with issues such as disclosure and stress/grief of infected employees.	0	6.60	5.66	**49.06**	**38.68**
e) How to respond to employee concerns regarding working with HIV/AIDS infected employees.	0.94	5.66	1.89	**56.60**	**33.96**
f) Job accommodation strategies together with case studies on how to deal with the everyday operational issues of HIV/AIDS employees.	1.89	9.43	3.77	**62.26**	**20.75**

4.6 Open ended Questions

The two open questions were answered by 27 of the 106 respondents, approximately 26 percent of the respondents. This represents 16 percent of the overall population.

The following were some of the suggestions put forward by managers:

- Risk assessment to be done at each centre or division.
- Management should put a strategy in place to deal with Government issuing Anti retroviral Treatment (ART). Most especially how to handle the safety aspects related to employees using ART and the side effects.
- In order for SASA to make an informed response, an urgent need for prevalence testing is firstly required, in order to determine the extent of employees infected.
- A common request was for some type of psychological assistance via support groups for those employees that were infected with HIV/AIDS.
- Strategy to be put in place to urgently de-stigmatize issues related to HIV/AIDS.
- Investigate what has worked for other organisation and use best practice where appropriate to the sugar industry.
- In rural areas, all people see is that HIV/AIDS is death. SASA needs to project an image of life.
- Actively share success stories to encourage HIV/AIDS infected employees.

Some of the comments from the two open-ended questions are listed below:

- The respondent requires assistance in the form of early disclosure so that documents can be in order and family members are helped after death.

- One respondent believed that management should get everyone tested.

- Compulsory testing should be done for the safety of the individual not for other peoples safety.

- As managers we have to know which employees are infected and get an idea of their progress.

- Excessive work pressure and expectations fuel the progress of HIV/AIDS. This leads to a break down in family life and results in higher infection rates. SASA should therefore cultivate an ethos of high respect for marriage and family time.

4.7 Summary

The data presented in this chapter shows that approximately 65 percent of the population responded to the questionnaire. The biographic information is presented in graphic format. The answers to sections B, C and D are presented in tabular format. The answers to the two open questions in section D is discussed with the main suggestions listed. The interpretation of this information is contained in the next chapter.

Chapter Five

5. Interpretation of Results

"That managers might know about AIDS and be able to quote statistics is not sufficiently helpful. They have to know about HIV/AIDS as it applies in their workplace; they have to know and understand those who are infected in their workplace; and they need to take a hands-on approach to developing policy and managing programs."

Geraldine Fraser-Moleketi.
Public Service and Administration Minister

In this chapter the data presented in the previous chapter is interpreted using statistical tools. Each question is analyzed individually as well as each section as a group. Cross tabulations of certain variables are also performed and the results discussed.

In the interpretation of the results reference is made to ethnic groups. This is a sensitive issue (particularly when considered within the context of South Africa's apartheid era), and the researcher is aware of the potential damage that can be done by associating findings with ethnic groups. Even though the Sugar Industry is endeavoring to redress past inequalities, particularly amongst previously disadvantaged groups, there remains however, specific differences amongst the various groups that may be pertinent to this research. It is therefore essential that the results be reported by ethnic group. This is done to ensure that the recommendations are valid.

Any reference to an ethnic group in this research is made solely for the above reason and is in no way making moralistic conclusion. Readers are encouraged to view reports of ethnic differences in the same manner.

5.1 Section A – Biographic Data

Table 5.1 below shows the central tendency, shape and distribution of the answers from Section A.

The mode values are confirmed by the skewness and kurtosis values. The descriptive statistics shows that 65% of the population is between the ages of 30-49 years, 75% are males, 71% are white and 79% are married.

31% of the population is in job grade D1/2, followed by 18% in grade C4. 49% of the population manages five employees or less, while 18% manages greater than 20 employees. 42% of the respondents manage employees who are in grade B&C and 38% in A&B. 59% of the respondents are five years or less in their current position while 14% are greater than 20 years. 69% are located in Durban while 56% classified their work area as urban.

Table 5.1 Descriptive statistics

Biographical Data

Question	1	2	3	4	5	6	7	8	9	10
	Age	Gender	Race	Marital Status	Grade	No. of Employees	Grade of Employees	No. of years in position	Location	Area Classification
Mode	30-39	Male	White	Married	D1/2	0-05	B-C	0-05	Durban	Urban
Std. Dev.	1.04	0.43	0.61	0.73	1.84	1.54	0.73	1.43	1.12	1.18
Skewness	0.21	1.25	-1.32	1.92	0.39	0.80	0.34	1.29	1.44	0.84
Kurtosis	-0.57	-0.45	1.52	2.26	-0.70	-0.88	-1.06	0.22	0.92	-0.92

5.1.1 Cross Tabulations

Cross-tabulation of Age vs. Grade

The majority of the C4 grade managers are in the 30-39 years age group, while most C5's are in the 40-49 years group. For D1/2 and D3 grade the age group 30-39 has the most managers. In the D4 and D5 grades most managers are in age group 50-59. Both the D4 and D5 grade have no managers in the 20-29 years age group. This is logical since higher grades require more years of experience. Also of note is the fact that there are no managers in the 30-39 age group for D5 managers.

		GRADE							Total
		C4	C5	D1/2	D3	D4	D5	E Band	
AGE	20-29 Years	2	0	4	1	1	0	0	8
	30-39 Years	9	2	13	7	1	0	2	34
	40-49 Years	3	5	10	6	3	2	5	34
	50-59 Years	3	1	4	2	4	6	2	22
	> 60 Years	2	0	2	0	0	1	1	6
Total		19	8	33	16	9	9	10	104

Cross-tabulation of Gender vs. Grade

For both males and females the majority of managers fall in grade D1/2. 83% of females are in grade D3 or below.

46 percent of males are in job grade D3 and above. There are four times more males compared to females in the E band and eight times more males compared to females in the D4 and D5 job grades.

		GRADE							Total
		C4	C5	D1/2	D3	D4	D5	E Band	
GENDER	Male	13	7	23	13	8	8	8	80
	Female	6	1	10	3	1	1	2	24
Total		19	8	33	16	9	9	10	104

Cross-tabulation of Race vs. Grade

In all job grades the majority of managers are from the White ethnic group . There are two managers from the Coloured ethnic group with one in D1/2 and one in D3. In the D4 and D5 job grade there are only White managers of which 2 are female and 16 are male.

100% of the Black ethnic group and 90% of the Indian ethnic group fall in grade D3 or below. There are eight Whites in E band of which 2 are female. Both Indians in the E band are male.

		GRADE							Total
		C4	C5	D1/2	D3	D4	D5	E Band	
RACE	Black	2	1	2	1	0	0	0	6
	Indian	7	2	5	5	0	0	2	21
	White	10	5	25	9	9	9	8	75
	Coloured	0	0	1	1	0	0	0	2
Total		19	8	33	16	9	9	10	104

Cross-tabulation of Age vs. Gender

		GENDER		Total
		Male	Female	
AGE	20-29 Years	7	2	9
	30-39 Years	17	17	34
	40-49 Years	30	4	34
	50-59 Years	21	1	22
	> 60 Years	5	1	6
Total		80	25	105

The majority of the female respondents (68%) are in the 30-39 years age group while 38% of the males fall within the 40-49 age group.

Cross-tabulation Age vs. Race

		RACE				Total
		Black	Indian	White	Coloured	
AGE	20-29 Years	0	5	3	1	9
	30-39 Years	3	10	21	0	34
	40-49 Years	2	4	27	1	34
	50-59 Years	1	2	19	0	22
	> 60 Years	0	1	5	0	6
Total		6	22	75	2	105

The majority of both Blacks and Indians fall in the 30-39 age group, whilst for White managers' it is the 40-49 age group, with 30-39 group a close second.

Cross-tabulation of Age vs. Marital Status

		Marital Status				
		Married	Divorced	Single	Life Partner	Total
AGE	20-29 Years	5	0	4	0	9
	30-39 Years	29	2	4	0	35
	40-49 Years	26	2	4	1	33
	50-59 Years	20	2	0	0	22
	> 60 Years	4	1	1	0	6
Total		84	7	13	1	105

92% of single managers are below 49 years of age. 89% of married managers are between 30-59 years old.

Cross-tabulation of Gender vs. Race

		RACE				
		Black	Indian	White	Coloured	Total
GENDER	Male	5	16	57	2	80
	Female	1	6	18	0	25
Total		6	22	75	2	105

There is one Black female and no Coloured females. White males total 71% of the male population and white females 72%. White and Indian males compose 70% of the population. White and Indian females make up 96% of the total females.

Cross-tabulation of Gender vs. Marital Status

		Marital Status				
		Married	Divorced	Single	Life Partner	Total
GENDER	Male	64	4	11	1	80
	Female	19	3	2	0	24
Total		83	7	13	1	104

85% of the single managers are male. There is a predominance of married males and females.

Cross-tabulation of Race vs. Marital Status

		Marital Status				
		Married	Divorced	Single	Life Partner	Total
RACE	Black	4	0	2	0	6
	Indian	20	0	2	0	22
	White	58	7	8	1	74
	Coloured	1	0	1	0	2
Total		83	7	13	1	104

All the respondents in the divorced category are Whites. 62% of the single managers are White.

5.2 Section B - Knowledge

With reference to the results presented in Chapter 4, 4.3 it is noted that question B9 has the highest level of knowledge (98.11 %). This is followed by question B11 (96.23 %) and B2 (95.40 %).

Question B4 has the highest "don't know" percentage (10.38 %), followed by B6 and B7 (8.49 %). The responses for these questions are examined to establish if there are any patterns related to the "don't know" answer. There is no distinct trend noted and the respondents who selected "don't know" for the three questions varied. It is noted that for the same three questions there is great variation in response as well as the lowest level of knowledge reported (59.43%, 60.368% and 81.13% respectively).

5.2.1 Reliability of Knowledge Scale

For the questions constructed to form the knowledge scale, internal consistency is assessed by Cronbach alpha, which shows a value of 0.65. In Torabi's (1999) investigation of the knowledge and attitude to HIV/AIDS in Indiana, he reported a Cronbach alpha of 0.66 for the knowledge dimension of fifteen questions. In accordance with this report an internal consistency of around 0.66 is acceptable.

With reference to appendix three which is the reliability analysis of the knowledge dimension note must be taken of the following;

- Question B7 has the strongest relationship with the entire test since if removed the Cronbach alpha will have the largest drop to 0.60. This is followed by B3 (0.61), B1 (0.61) and B8 (0.61).
- Questions B12C, B12D and B12F are negatively correlated with the total score. If deleted the Cronbach alpha would be improved.
- Overall it is noted that questions B12A to B12L shows a higher average score as well as a higher Cronbach alpha if removed. This is also confirmed by the scale variance if item deleted.

5.2.2 Descriptive Statistics

Table 5.2 below details the descriptive statistics for the knowledge dimension. All respondents answered all questions in this section.

For question B12B there is no descriptive statistics reported since all 106 respondents gave the same answer to the question. For all other questions, there are answers on all points in the scale.

For questions B4 and B6 there is a large variation in the answers – standard deviation of 1.236 and 1.156 respectively.

Table 5.2 Descriptive Statistics - Knowledge

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std.	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
B1	106	2	5	4.37	.747	.559	-1.419	.235	2.511	.465
B2	106	1	5	4.47	.746	.556	-2.007	.235	5.665	.465
B3	106	1	5	4.34	.838	.703	-2.000	.235	5.621	.465
B4	106	1	5	3.51	1.236	1.528	-.346	.235	-1.188	.465
B5	106	1	5	4.48	.819	.671	-2.481	.235	7.882	.465
B6	106	1	5	3.46	1.156	1.337	-.302	.235	-1.219	.465
B7	106	1	5	4.08	.967	.936	-1.074	.235	.607	.465
B8	106	1	5	4.39	.684	.468	-1.399	.235	4.367	.465
B9	106	1	5	4.45	.649	.422	-1.843	.235	7.422	.465
B10	106	1	5	4.20	.899	.808	-1.607	.235	3.340	.465
B11	106	1	5	4.42	.702	.493	-1.796	.235	5.869	.465
B12A	106	1	3	2.73	.610	.372	-2.086	.235	2.995	.465
B12B	106	3	3	3.00	.000	.000	.	.	.	.
B12C	106	1	3	2.91	.379	.143	-4.228	.235	17.638	.465
B12D	106	1	3	2.95	.289	.083	-6.339	.235	40.206	.465
B12E	106	1	3	2.54	.795	.632	-1.285	.235	-.156	.465
B12F	106	1	3	2.79	.547	.299	-2.577	.235	5.416	.465
B12G	106	1	3	2.87	.459	.211	-3.504	.235	11.225	.465
B12H	106	1	3	2.35	.744	.553	-.668	.235	-.896	.465
B12I	106	1	3	2.70	.706	.498	-1.977	.235	2.023	.465
B12J	106	1	3	2.18	.566	.320	.017	.235	-.114	.465
B12K	106	1	3	2.77	.590	.348	-2.453	.235	4.516	.465
B12L	106	1	3	2.96	.236	.056	-6.890	.235	50.665	.465
Valid N (listwise)	106									

5.2.3 Cross-tabulations

Cross-tabulations are done for both individual questions and the overall knowledge dimension. The results for section B (found in chapter 4 - 4.3) are analyzed and questions are selected for further analysis to determine trends when compared to biographic information. The results from these cross-tabulation are analyzed and significant trends are reported below.

The cross-tabulations focuses on the following biographical information since these would be most helpful in identifying areas of training needs.

- **Age**

For question B1 to B11 the overall results show that the age group 40-49 has a better level of knowledge compared to all other groups. The age group 30-39 contributes to a lower score for knowledge. With regards to question B12A to B12L which are the knowledge of transmission of HIV/AIDS questions, age group 50-59 are found to have a lower level of knowledge. There is no distinct trend related to high level of knowledge amongst the age groups.

- **Gender**

It is generally found that males contributed to a lower knowledge score. It is also found that males chose the “don’t know” option more often than females.

- **Race**

Indians made a significant contribution to the lowered overall knowledge score. With regard to transmission knowledge, it is determined that Whites contribute mostly to the lowered score. Indians selected the "don't know" option most often.

- **Grade**

There is no distinct overall trend related to grades.

- **Classification of work area**

Managers in urban areas are an important factor in the lowered score. The respondents from urban areas also selected the "don't know" option most frequently. For knowledge of transmission of HIV/AIDS rural respondents play a significant part in the lowered score.

5.2.4 Overall findings for the knowledge dimension

The statistics for overall compared to transmission knowledge is in table 5.4 below.

Table 5.2.4 Overall vs. Transmission Knowledge

	Minimum Percent	Maximum Percent	Standard deviation
Overall Knowledge	71.43 %	100 %	5.63
Transmission Knowledge	63.89 %	100 %	2.45

The overall level of knowledge of HIV/AIDS is 86.72 percent and the level of knowledge of transmission of HIV/AIDS is 90.96 percent. Only one manager has a 100 percent overall knowledge but there are nine managers (eight percent of the respondents) who have 100 percent transmission knowledge.

Although the minimum overall knowledge has a higher percent compared to transmission knowledge, the standard deviation shows that there is more variation in the answers for overall knowledge.

For transmission knowledge the lowest level (26%) is associated with question B12J, which is the question on homosexuality. The other question that has a low knowledge response was question B12H (51%), which correlates to transmission via saliva.

For the overall knowledge dimension 34.91 percent of managers have a knowledge level of 90-100%, while 50.94 percent a level of between 80-89 and 14.15 percent a level of 70-79.

5.3 Section C – Attitude

With reference to the results presented in Chapter 4, 4.4 it is noted that question C8 has the highest score and this therefore indicates a high positive attitude towards HIV/AIDS and people infected with HIV/AIDS (PWA) (91.51 %). This is followed by question C3 (90.57 %) and C4 (90.56 %).

Question C11 has the highest "don't know" percentage (21.70 %), followed by C5 (17.92%) and C9 (16.98 %). The responses for these questions are studied to establish if there are any correlations to the "don't know" answer. There is no particular trend noted for the respondents who selected "don't know". While it is noted that three respondents selected "don't know" for all three questions their responses to other questions varies in line with other respondents (standard deviation 0.67, 0.80 and 0.97 – average standard deviation for individual respondents is 0.86). This therefore indicates that the respondents' selection is valid and unrelated to central tendency.

It is further noted that C9 has the lowest score (38.68%). This is followed by C7 and C11 (65.10 %, and 66.98 % respectively).

5.3.1 Reliability of Attitude Scale

For the questions constructed to form the attitude scale, internal consistency is assessed by Cronbach alpha, which shows a value of 0.76. Although Torabi's (1999) report investigates attitude to HIV/AIDS, he did not report his Cronbach alpha for the attitude questions. Based on the fact that 66% reliability is acceptable for the knowledge dimension, 76% reliability should be acceptable for the attitude dimension.

With reference to appendix four which is the reliability analysis of the attitude dimension note must be taken of the following;

- Question C2 has the strongest relationship with the entire test since if removed the Cronbach alpha will have the largest drop to 0.7378. This is followed by C4 (0.7411), and C10 (0.7435).
- All questions are positively correlated with the total score.

5.3.2 Descriptive Statistics

Table 5.3 below details the descriptive statistics for the attitude dimension. Only questions C10 and C12 are answered by all respondents.

The lowest average is reported for question C9 (2.95). C9 also has the largest standard deviation (1.212). C4 has the least variation – standard deviation of 0.684.

Table 5.3 Descriptive Statistics - Attitude

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std.	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
C1	105	1	5	4.38	.825	.680	-1.758	.236	4.207	.467
C2	105	1	5	3.97	.904	.816	-1.298	.236	2.251	.467
C3	104	1	5	4.28	.782	.611	-1.532	.237	3.625	.469
C4	104	1	5	4.31	.684	.468	-1.223	.237	3.988	.469
C5	105	1	5	3.78	1.065	1.134	-.815	.236	.149	.467
C6	104	1	5	3.77	1.159	1.344	-.831	.237	-.204	.469
C7	103	1	5	3.68	1.113	1.239	-.508	.238	-.950	.472
C8	105	1	5	4.30	.833	.695	-1.947	.236	5.546	.467
C9	105	1	5	2.95	1.212	1.469	.093	.236	-1.114	.467
C10	106	1	5	3.88	1.021	1.042	-.954	.235	.273	.465
C11	105	1	5	3.68	.838	.702	-.726	.236	.480	.467
C12	106	1	5	3.69	.979	.959	-.700	.235	-.292	.465
Valid N (listwis	102									

5.3.3 Cross-tabulations

Cross-tabulations are established for both individual questions and the overall attitude dimension. The results for section C (found in chapter 4 - 4.4) are scrutinized and questions are selected for further analysis to determine trends when compared to biographic information. The results from these cross-tabulation are discussed and significant trends are reported below.

The cross-tabulations focused on the following biographical information since these would be beneficial in identifying areas of training needs.

- **Age**

There is no clear trend noted for age and "don't know" answers. The 20-29 age group contributes chiefly to the agree/disagree score and have a tendency to keep away from having a strong opinion. The age group 40-49 has a higher positive attitude compared to the others. The age group 30-39 contributes largely to a lower score for the attitude dimension.

- **Gender**

It is generally found that males contributed towards the lower attitude score for ten of the twelve questions. The results show that females choose the "don't know" option more often than males. When it comes to a higher positive attitude, both males and females

contribute equally, but females are inclined to select the agree/disagree instead of having a strong opinion.

- **Race**

The White ethnic group played a major role in the lower attitude score. The Black ethnic group displays a slightly higher positive attitude than the other groups. The Indian ethnic group selects the agree/disagree option more frequently. The Black ethnic group more commonly selects the "don't know" option.

- **Grade**

There is no distinct trend related to grades.

- **Classification of work area**

There is no distinct trend related to work area.

5.3.4 Overall findings for the Attitude dimension

The overall score for the attitude towards HIV/AIDS and PWA is 46.11 (i.e. 76.85 percent). The minimum score is 14 (23.58%) and the maximum is 60 (100%). Three respondents have a 100% score.

The minimum score of 14 is as a result of one respondent not answering questions C1 to C9. All these questions are on one page (page four) in the questionnaire. The returned

questionnaire was examined and it was found that page four was sent to the respondent. The respondent printed the questions on both sides of the page but overlooked this (only for page four) when filling in the questionnaire.

The standard deviation for the overall scores is 7.02, which shows a large variation in results around the mean.

The table below details the statistics for the scores on the attitude dimension.

Table 5.3.4 Statistics for Attitude Score

Score intervals	Number of Respondents	Percent of overall Respondents
100 %	3	2.83
90-99 %	14	13.21
80-89 %	26	24.53
70-79 %	25	33.02
60-69 %	25	23.58
50-59 %	2	1.89
20-29 %	1*	0.94*

* The low score is explained above.

There is no trend noted in the lower scoring attitude questions. C9 is a general attitude question that scored the lowest (38.68%), while C7 is an ethnic attitude question that had the second lowest score of 65.10%. C11 and C5 also scored low (66.98% and 67.93% respectively) but these are personal attitude questions.

5.4 Section D – Training Needs

With regard to the results presented in Chapter 4, 4.5 it is noted that question D9B has the highest score, which indicates the highest training requirement of 91.51%. This addresses issues around the legal and safety aspects of managing HIV/AIDS infected employees. Closely following this is question D9E (90.57 %) which focuses on addressing employee concerns regarding working with HIV/AIDS infected people, and D9D (85.07 %) that concerns itself with disclosure and stress of infected employees.

Question D9A (related to basic knowledge of HIV/AIDS) has the highest "not required" percentage (11.32 %), followed by D9C (7.55%), which is the business impact of HIV/AIDS.

It is noted that 90 percent of the respondents believe that dealing with HIV/AIDS in the workplace is the line managers' function.

5.4.1 Reliability of Training Needs Scale

For the questions constructed to assess the training need, internal consistency is assessed by Cronbach alpha, which shows a value of 0.62 (refer to appendix five). This means that the reliability of the scale to assess the training needs is 62 percent. Since this is close to the reliability of the knowledge scale it must be acceptable.

With reference to appendix five which is the reliability analysis of the training needs dimension note must be taken of the following;

- Question D9E has the strongest relationship with the entire test since if removed the Cronbach alpha will have the largest drop to 0.5620. This is followed by D9F (0.5655), and D8 (0.5733).
- Question D1 is negatively correlated with the total score. If deleted the Cronbach alpha would be improved.
- Questions D1 shows a higher average score (46.96) as well as a higher Cronbach alpha (0.6780) if removed. This is also confirmed by the scale variance if item deleted.

5.4.2 Descriptive Statistics

Table 5.4 below details the descriptive statistics for the evaluation of training needs.

For questions D2, D5 and D4 the variation from the mean is most compared to the other questions – standard deviation of 1.205, 1.025 and 1.012 respectively.

For the questions on a five-point scale the lowest mean is recorded for D2 and the highest mean is recorded for D9D.

Table 5.4 Descriptive Statistics Training Needs

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std.	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
D1	106	1	4	1.64	.896	.804	1.019	.235	-.345	.465
D2	104	1	5	2.75	1.205	1.451	.089	.237	-.885	.469
D3	106	1	5	3.60	.902	.813	-.953	.235	.406	.465
D4	106	1	5	3.15	1.012	1.025	-.366	.235	-1.139	.465
D5	106	1	5	2.92	1.025	1.050	.173	.235	-1.178	.465
D6	105	1	5	3.98	.855	.730	-1.376	.236	2.585	.467
D7	104	2	5	3.26	.935	.874	-.108	.237	-1.183	.469
D8	104	1	5	3.07	.978	.957	-.010	.237	-1.194	.469
D9A	106	1	5	3.83	1.000	.999	-.991	.235	.632	.465
D9B	106	2	5	4.17	.786	.619	-1.269	.235	2.076	.465
D9C	106	2	5	3.94	.849	.721	-.938	.235	.664	.465
D9D	106	2	5	4.20	.821	.675	-1.120	.235	1.184	.465
D9E	105	1	5	4.18	.806	.650	-1.466	.236	3.146	.467
D9F	104	1	5	3.92	.900	.810	-1.314	.237	1.861	.469
Valid N (listwise	100									

5.4.3 Cross-tabulations

Cross-tabulations are done for both individual questions and the overall training needs. The results for section D (found in chapter 4 - 4.5) are analyzed and questions are selected for further analysis to determine trends when compared to biographic information. The results from these cross-tabulation are analyzed and significant trends are reported below. Question D1 to D8 looks at the general aspects related to the managers training needs. Questions D9A to D9F looks at specific areas of training that is available.

The 61.32% of respondents who knew HIV/AIDS suffers are mainly female between the age group 50-59 years and are from rural work area. Almost twenty percent (19.81 %) of respondents suspected that someone they know has/had HIV/AIDS. This comprises mostly of men, between the age group 40-49 year that work in semi-urban area.

The 19.81 percent respondents who believe HIV/AIDS infected employees are having a serious impact in the departments are mainly Indian males between the age group of 20-29 years and based in semi-rural work area.

The 61.31 percent of respondents who believe SASA provides information on HIV/AIDS readily are males between 50-59 years, working in urban areas. The 14.15 percent who disagree with this are white females from urban areas.

It is mainly Indian males from urban areas between 40-49 years that reported that SASA provided sufficient information to assist in the management of HIV/AIDS employees. The 30.19 percent of respondents who disagreed with this were females from semi-rural areas.

It is primarily White males from semi-urban areas that believe they have the necessary skills to discuss HIV/AIDS with their employees whilst the 41.51 percent who do not believe they possess the requisite skills are chiefly from rural areas.

The nine percent of respondents who believe it was not their responsibility to deal with HIV/AIDS issues with their employees and the six percent who answered "don't know" are mainly from the older age group (i.e. greater than 50 years).

The 41.51 percent of respondents who are of the opinion that they know how to respond to an employees' disclosure of HIV/AIDS status are mainly males from semi-urban areas. The 27.36 percent who disagree with this and the 23.58 percent who answered, "don't know" are mainly females between the ages 29-39.

It is principally white males from urban areas that believe they would be able to effectively advise HIV/AIDS infected employees, with the 33.96 percent that disagree being mainly females from rural areas.

For the specific training needs it is noted that "highly important" is selected mainly by females and age group 20-29. Not required is selected mainly by males and age group greater than 50.

5.4.4 Open-ended questions

For the two open-ended questions, majority of the respondents restated what is assessed in the training needs. A request for continuous updated information is made by most of the respondents (This is the same as question four in section D).

One message that was clear from management is that they felt that the time for talking was over and they would like to see more action from SASA.

"HIV/AIDS is a silent dilemma in SASA. Leadership does not go beyond a few words."

There is also a request for SASA to have a clear policy on HIV/AIDS. Another respondent requested that ***"SASA should be more proactive in presenting an AIDS policy to its employees and customers."*** Contradictory to this comment, certain managers believed that SASA is doing its best to address the situation and that there is a high HIV/AIDS awareness in SASA as a result of the companies' efforts.

"SASA should be more considerate towards people with HIV/AIDS"

The above statements indicate a lack of knowledge of what SASA is actively doing.

The eight suggestions put forward by the managers will be discussed in chapter six the recommendations chapter.

Certain comments under this section (listed in chapter 4) indicate either a lack of knowledge of the law or a total frustration of not knowing how to deal with HIV/AIDS issues.

5.4.5 Overall Training Needs Results

The two aspects of training that have the highest percent response (91.51 and 90.56 percent) are legal and safety training (D9B) and response to employees concerns with regards to working with fellow employees who are HIV/AIDS infected (D9E).

Table 5.4.5 Displays the scores for the **specific training** requested (i.e. questions D9A to D9F).

Score interval in percent	Number of Respondents	Percent of total respondents
30 - 39	1	0.94
40 - 49	2	1.89
50 - 59	5	4.72
60 - 69	10	9.43
70 - 79	11	10.38
80 - 89	50	47.17
90 - 100	27	25.47

72.64 percent of the respondents indicate a greater that 80 percent need for training in the specific areas listed. Seven respondents indicated that all the training listed is highly important (i.e. 100% score).

The overall training needs score is 70.00 percent for section D.

Table 5.5 Overall Analysis - Reliability

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
B Knowledge dimension	106	65.00	91.00	78.9151	5.63343
C Attitude dimension	106	14.00	60.00	46.1132	7.02285
D	106	31.00	64.00	48.2925	5.48238
Valid N (listwise)	106				

Note D is the training needs section

For all the questions in the questionnaire, internal consistency is assessed by Cronbach alpha, which shows a value of 0.7498 (refer to appendix six). This means that the reliability of the scale to assess the training needs is 74.98 percent. Since this very much higher than the reliability of the knowledge scale it must be acceptable.

With reference to appendix six, which is the reliability analysis of all the questions, note must be taken of the following:

- Question D6 has the strongest relationship with the entire test since if removed the Cronbach alpha will have the largest drop to 0.7325. C3 (0.7345), and C2 (0.7360) follow this.
- Question B6 is the highest negatively correlated question with the total score. If deleted the Cronbach alpha would be improved to 0.7680.

Table 5.5.1 T-test - Gender

Group Statistics

	GENDER	N	Mean	Std. Deviation
B Knowledge dimensio	Male	80	78.8625	5.61360
	Female	25	79.0800	5.92256
C Attitude dimension	Male	80	45.5500	7.46112
	Female	25	48.1200	5.11794
D	Male	80	48.2000	5.88368
	Female	25	48.7600	4.06489

The above statistics indicate that females have a slightly higher knowledge, a more positive attitude and that there is virtually no gender difference related to training needs.

Independent Samples Test

		t-test for Equality of Means		
		t	df	Sig. (2-tailed)
B Knowledge dimension	Equal variances assumed	-.167	103	.868
C Attitude dimension	Equal variances assumed	-1.606	103	.111
D	Equal variances assumed	-.443	103	.659

The above t-test indicates that any differences noted between the means of gender and the dimensions tested are not significant.

Table 5.5.2 One-Way Analysis of Variance (ANOVA) - Age

Descriptives

		N	Mean	Std. Deviation
B Knowledge dimension	*20-29*	*9*	*76.7778*	*2.94863*
	30-39	35	78.6000	5.53704
	40-49	**34**	**80.6176**	**5.13464**
	50-59	22	77.8182	6.92570
	>60	6	78.3333	5.85377
	Total	106	78.9151	5.63343
C Attitude dimension	20-29	9	45.7778	3.99305
	30-39	35	46.0571	6.02906
	40-49	34	46.7941	8.54145
	50-59	*22*	*44.5000*	*6.96761*
	>60	**6**	**49.0000**	**7.26636**
	Total	106	46.1132	7.02285
D	**20-29**	**9**	**50.2222**	**4.02423**
	30-39	35	48.1429	4.62183
	40-49	34	49.0588	5.56472
	50-59	22	47.0909	6.64694
	>60	*6*	*46.3333*	*6.94742*
	Total	106	48.2925	5.48238

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
B Knowledge dimension	Between Groups	171.645	4	42.911	1.371	.249
	Within Groups	3160.591	101	31.293		
	Total	3332.236	105			
C Attitude dimension	Between Groups	124.141	4	31.035	.620	.649
	Within Groups	5054.500	101	50.045		
	Total	5178.642	105			
D	Between Groups	109.059	4	27.265	.904	.465
	Within Groups	3046.875	101	30.167		
	Total	3155.934	105			

The descriptive statistics indicate that age group 40-49 has the highest level of knowledge on HIV/AIDS, age group greater than 60 has the highest positive attitude towards HIV/AIDS and PWA, and that age group 20-29 has the highest need for training.

The ANOVA for age shows that the differences noted in the descriptive statistics above is not significant.

Table 5.5.3 ANOVA - Race

The descriptive statistics indicate that the Black ethnic group has a higher positive attitude and a need for training, while the Coloured ethnic group has the highest level of knowledge.

The ANOVA however shows that this relationship between the means is not significant.

Descriptives

		N	Mean	Std. Deviation
B Knowledge dimension	Black	6	74.5000	4.50555
	Indian	22	77.7727	5.35352
	White	75	79.5200	5.73599
	Coloured	**2**	**82.0000**	**1.41421**
	Total	105	78.9143	5.66045
C Attitude dimension	**Black**	**6**	**48.0000**	**6.13188**
	Indian	22	46.3636	4.68580
	White	75	45.9867	7.77643
	Coloured	2	45.0000	1.41421
	Total	105	46.1619	7.03853
D	**Black**	**6**	**50.6667**	**2.42212**
	Indian	22	49.6364	3.56632
	White	75	47.7733	6.09070
	Coloured	2	48.0000	1.41421
	Total	105	48.3333	5.49242

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
B Knowledge dimension	Between Groups	192.145	3	64.048	2.060	.110
	Within Groups	3140.084	101	31.090		
	Total	3332.229	104			
C Attitude dimension	Between Groups	26.170	3	8.723	.172	.915
	Within Groups	5126.078	101	50.753		
	Total	5152.248	104			
D	Between Groups	93.762	3	31.254	1.037	.380
	Within Groups	3043.571	101	30.134		
	Total	3137.333	104			

Table 5.5.4 ANOVA - Grade

Descriptives

		N	Mean	Std. Deviation
B Knowledge dimension	C4	19	77.0526	4.87025
	C5	8	74.3750	4.47014
	D1/2	33	79.8485	5.25667
	D3	16	80.1250	5.36501
	D4	9	79.8889	5.75423
	D5	9	75.7778	7.36169
	E Band	**10**	**83.4000**	**4.14193**
	Total	104	78.9519	5.67464
C Attitude dimension	C4	19	46.2105	5.64288
	C5	8	44.5000	4.72077
	D1/2	33	44.9394	8.53280
	D3	16	48.8750	6.81053
	D4	9	46.1111	5.64456
	D5	9	43.8889	7.02575
	E Band	**10**	**49.2000**	**6.82805**
	Total	104	46.1635	7.07259
D	C4	19	48.8947	6.10004
	C5	8	48.0000	4.69042
	D1/2	33	49.0606	5.68408
	D3	16	48.3750	3.24294
	D4	**9**	**51.5556**	**4.53076**
	D5	9	42.8889	6.07134
	E Band	10	47.1000	5.40473
	Total	104	48.3365	5.51892

The descriptive statistics indicate that E Band has a higher level of knowledge and a more positive attitude, while the D4 grade indicates the highest need for training. The ANOVA shows that for the knowledge dimension and training needs there is a significant difference between the means.

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
B Knowledge dimension	Between Groups	581.100	6	96.850	3.434	.004
	Within Groups	2735.659	97	28.203		
	Total	3316.760	103			
C Attitude dimension	Between Groups	328.057	6	54.676	1.099	.368
	Within Groups	4824.164	97	49.734		
	Total	5152.221	103			
D	Between Groups	399.792	6	66.632	2.361	.036
	Within Groups	2737.429	97	28.221		
	Total	3137.221	103			

Table 5.5.5 ANOVA - Classification of Work Area

Descriptives

		N	Mean	Std. Deviation
B Knowledge dimension	Urban	59	79.0847	6.00083
	Semi-urban	16	78.1250	4.81491
	Semi-rural	**12**	**79.6667**	**7.04961**
	Rural	19	78.5789	4.27286
	Total	106	78.9151	5.63343
C Attitude dimension	**Urban**	**59**	**47.2203**	**6.88343**
	Semi-urban	16	43.0000	8.90693
	Semi-rural	12	44.5833	5.31650
	Rural	19	46.2632	6.11775
	Total	106	46.1132	7.02285
D	Urban	59	47.8644	5.54125
	Semi-urban	**16**	**49.2500**	**5.72131**
	Semi-rural	12	47.6667	3.93893
	Rural	19	49.2105	6.08805
	Total	106	48.2925	5.48238

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
B Knowledge dimension	Between Groups	20.611	3	6.870	.212	.888
	Within Groups	3311.625	102	32.467		
	Total	3332.236	105			
C Attitude dimension	Between Groups	255.905	3	85.302	1.767	.158
	Within Groups	4922.736	102	48.262		
	Total	5178.642	105			
D	Between Groups	46.194	3	15.398	.505	.680
	Within Groups	3109.740	102	30.488		
	Total	3155.934	105			

The descriptive statistics show that respondents from the semi-urban area have the highest level of knowledge, respondents from the urban area have the highest positive attitude and that the need for training is highest in semi-urban areas. The ANOVA however shows that the differences are not significant.

Table 5.5.6 Correlation Analysis

Correlations

		B Knowledge dimension	C Attitude dimension	D
B Knowledge dimension	Pearson Correlation	1	.357**	.085
	Sig. (2-tailed)	.	.000	.388
	N	106	106	106
C Attitude dimension	Pearson Correlation	.357**	1	.119
	Sig. (2-tailed)	.000	.	.223
	N	106	106	106
D	Pearson Correlation	.085	.119	1
	Sig. (2-tailed)	.388	.223	.
	N	106	106	106

**. Correlation is significant at the 0.01 level (2-tailed).

The correlation analysis indicates that the two variables that have a very slight positive correlation which have very low significance (i.e. between knowledge and attitude). The other variable has no significant correlation.

5.6 Summary

65% of the population is between the ages of 30-49 years, 75% are males, 71% are white and 79% are married. The level of knowledge of HIV/AIDS is 86.72 % and the level of knowledge of transmission is 90.96 %. The score for the attitude towards HIV/AIDS and PWA is 46.11 (i.e. 76.85 % positive attitude). The training needs score was 69.99 %. The ANOVA results showed significant difference between means for knowledge and training needs, compared to grade. In the next chapter discussion of the results will take place and conclusion will be reached based on the recommendation from the research.

Chapter Six

6. Recommendations and Conclusion

"When the history of our time is written, it will record the collective efforts of societies responding to a threat that has put in the balance, the future of whole nations. Future generations will judge us on the adequacy of our response."

President Nelson Mandela,
At the World Economic Forum on AIDS.

The results analyzed in the previous chapter will be discussed and recommendation based on the findings will be made. The recommendations are based on using specific training that is available in South Africa. Lastly conclusions will be drawn based on all the data from the research.

6.1 Knowledge and Attitude Findings

The results from the knowledge and attitude survey in this research are compared to the following reports in order to put the findings into perspective.

- Mondi HIV/AIDS knowledge and attitude survey, June 1997. This was a survey of all employees in Mills based in Richards Bay and Felixton.
- Mondi HIV/AIDS knowledge and attitude survey, May 2001. This is a survey of all employees at the Richards Bay, Felixton and Piet Retief Mills.

Table 6.1 Knowledge vs. Attitude

	Knowledge	Attitude
SASA	86.72	76.85
Mondi 1997	72.00	51.00
Mondi 2001	83.00	61.00

It must be noted that that for SASA the population is management. It must also be noted that between 1997 and 2001 Mondi had many intervention, one of which was a two-year examinable training program for supervisor/line managers.

6.2 Recommendations - Knowledge

While it is noted from the above that the level of knowledge is high amongst managers in SASA, it would be ideal to have a hundred percent level (especially since we are dealing with educated managers who have better excess to basic HIV/AIDS information). Although the overall knowledge level is high it must be noted that 14 percent of the respondents had a knowledge level of 70-79 percent. Note must also be taken that even though the level of knowledge of transmission was high at 90.96 percent, low scores such as 26 and 51 percent are recorded for specific questions and the lowest individual respondent score is 63.89 percent.

The results show that the only significant relationship between the biographic variables and the knowledge dimension is the grade of managers. If one examines this however it is noted that managers in grade C5 (7% of the respondents) have a knowledge level of 82 percent. The highest level of knowledge (88) is grade D3 (15 % of the respondents). The difference between the highest and lowest level of knowledge is only 6 percent. It is therefore recommended that to assist in improving the overall knowledge level as well as the lower scoring respondents, general information on HIV/AIDS, which is readily available on the internet (free download), be e-mailed/posted to all managers. To encourage reading of these documents, managers can be requested to discuss this basic knowledge in their meeting with staff. Managers from grades C4, C5 and E band, which are the three lowest scoring groups, can be specifically targeted to go on a formal training course.

6.3 Recommendations - Attitude

The overall attitude is good (76.85 percent) but once again a higher positive attitude is required especially against the backdrop that, in the next two years, managers are increasingly going to be dealing with HIV/AIDS infected employees.

There are no major relationships between the attitudes of the respondents and the biographic information. One is therefore unable to make specific recommendation to target certain groups of the population. It is however recommended that SASA conduct

further investigation into the identification of target groups in order to derive maximum benefit from the implementation of any HIV/AIDS strategy.

The specific attitude questions that have very low scores are discussed below.

- The lowest score (38.68 %) is related to compulsory testing of employees. This is a legal issue and with training and more exposure to knowledge of HIV/AIDS this attitude can change.
- The second lowest score is related to ethnic groups and this can only be addressed via training and exposure to information on people who are infected with HIV/AIDS.
- Respondents answered "don't know" (21.70 percent) to giving first aid to HIV/AIDS infected with HIV/AIDS. This is once again related to a lack of knowledge.

The lower attitude score in comparison to the higher knowledge score could indicate that while managers are inherently aware of the facts about HIV/AIDS, their attitudes are influenced by fear in spite of knowledge or personal prejudice.

It is therefore recommended that managers be sent for a comprehensive HIV/AIDS training course. An overall recommendation of courses is found at the end of this chapter.

To also assist in promoting a healthy attitude, articles and newsletters that are abundantly available on the Internet should be sent to the managers. They will act as excellent information sharing/education tools as well as present a comprehensive picture of

HIV/AIDS. International newsletters will also help since it will give a different perspective of HIV/AIDS compared to Africa.

6.4 Recommendations – Training Needs

The need for training is supported by the following:

- 50 percent of the respondents indicated that SASA did not provide them with sufficient information to manage HIV/AIDS infected employees.
- 53 percent of the respondents did not know how to respond if an employee discloses their HIV/AIDS status.
- 27 percent of the respondents are already experiencing problems in their department due to HIV/AIDS infected employees.
- 36 percent of the respondents are not able to advise employees who are infected with HIV/AIDS and a further 22 percent don't know if they could.
- For the list of specific training put forward to managers, greater than 80 percent of the respondents indicate that they require five of the six training aspects. 75 percent indicate that they require basic HIV/AIDS knowledge training.

There is only one significant relationship between the training needs variable and the biographic information i.e. grades. The D5 grade (8 % of respondents) has lowest need for training (62 %), while the D4 grade (8 % of respondents) has the highest need for

training (75 %). A 13 % difference is quite significant between the highest and lowest needs.

Therefore the groups that could be targeted for specific training is the D4 and D1/2 (31 % of respondents) grades which are the two groups with highest training needs scores. Note must be taken that after the questionnaires had been filled by the managers a significant portion of D2 managers (11 in total) were upgraded to D3.

The above establishes a strong motivation for the consideration of the following training:

- Stellenbosch University, African Center for HIV/AIDS Management, (2003) took up the gauntlet in the battle against HIV/AIDS when Deputy President Jacob Zuma posed a challenge to them. To develop a program that addresses one of the most important challenges our democracy faces, by taking HIV/AIDS training to the managers and labour leaders of South Africa's besieged workforce.

  "Regardless of what we do in the community, if we do not extend our prevention and care work to the workplace, we will not make a dent in this epidemic," Zuma said.

  The Postgraduate Diploma in the Management of HIV/AIDS in the World of Work, was designed in response to this.

Stellenbosch/Medunsa consortium believes unevenness, inadequate training and distrust between managers and workers characterise the management of HIV/AIDS in workplaces and cause negative effects on the quality of life and work.

This option however is expensive and is not feasible for all 164 managers to attend. It is recommended that SASA executive offer this opportunity to those managers who are identified as target groups.

- Health Insite offers an innovative web based training program called AIDS Insite. This series of online management training workbooks caters for managers to empower them with accurate information and a better understanding of HIV and AIDS. The modules include all the specific training needs that are covered in section D.

  Once managers have completed each module, assessments are done which entails them being individually graded and the training manager in the organisation will receive a collated assessment of all the managers that enrolled onto the program. All materials are SETA accredited, allowing organizations to claim back on their levies provided that HIV/AIDS training is included in the organization's Skills Development Plan. There are nine modules in total and each person can select the module based on individual needs.

There are various other courses available along the same line as the above two suggested.

There is also the option of using a consultant to develop an HIV/AIDS training program specific to SASA needs. This option is the best since it will have the greatest impact. There are several training companies in South Africa that offer this service, one of which is Futuristic Training Solutions. It is the company that both AECI and Eskom used to address their training needs regarding HIV/AIDS.

6.5 Suggestions from Respondents

An analysis of the responses to the open-ended questions yielded the following recommendations for SASA:

- There needs to be a raised awareness amongst managers and staff regarding SASA's interventions in response to the HIV/AIDS pandemic. It is quite evident from the comments made by respondents so that some managers are unaware of the extent to which the company has gone to assist HIV/AIDS infected employees. This is undoubtedly a difficult hurdle to overcome given the constraint of ensuring that confidentiality is not breached; however SASA needs to make a concerted effort to source a way of informing managers that the assistance of infected and affected employees remains a key priority and that to date much has been done to this regard.

- Clear guidelines need to be distributed to all managers in SASA on how to addresses issues related to managing HIV/AIDS infected employees.

- A comprehensive review of SASA's HIV/AIDS policy needs to be undertaken with input being obtained from key stakeholders. This will promote "buy-in" to the policy, as well as further the aims of raised awareness.

- The suggestion of having a support group is an excellent one but group diversity is essential (i.e.: both infected and non-infected employees should make up the group) so as to remove any stigmatization.

It is recommended that SASA during their formulation of an HIV/AIDS strategy give earnest consideration to suggestions put forward by managers in Chapter four.

6.6 Conclusion

The research achieved its objective of establishing the level of knowledge, attitude and training needs. The knowledge level of line managers at SASA was found to be high, the attitude positive but not as high as the knowledge level, and lastly a high need for training was established.

The biographic information was analysed against the three variables. It was found that only for the knowledge and training needs variable against grade is the difference between the mean significant. All others showed no significant difference.

The correlation analysis indicates that the knowledge and attitude variables have very slight positive correlation, which has very low significance.

The results of this research will provide useful input for SASA's executive to consider when formulating the HIV/AIDS strategy. Hopefully whatever is done within the boundaries of the workplace and the cost factors, SASA will always keep in mind the quote by Former President Nelson Mandela - How will history judge us?

"Companies often judge their health by the most superficial of financial measures;
employees' well-being in every sense of the word is probably
a better indicator of a business's health in today's economy."

"The Business Lessons of AIDS", Inc. Magazine
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Appendix One – Introduction Letter to Managers

To : All SASA Supervisors and Managers C4 and above

Subject: Research into knowledge, attitude and training needs of line managers regarding HIV/AIDS infected employees.

Dear Colleagues

Introduction

My name is Predhie Naidoo and I am the SASA Cane Testing Manager at the Darnall and Amatikulu Mills. I am currently studying towards my Masters Degree in Business Administration (MBA) through the Durban Institute of Technology. In fulfillment of my studies and with the full agreement of SASA I am conducting the following research:

The knowledge, attitude and training needs of managers at the South African Sugar Association (SASA) with regards to the management of HIV/AIDS infected employees.

Background to and Benefits of the Research

As a manager working with HIV/AIDS infected and affected employees I have developed a strong interest in this subject and have personally experienced the challenges that this can present to management. It is my belief that HIV/AIDS presents a new dimension to managing employees. This assumption will be explored in my research.

As many of you will have seen in the Notes of the SASA Executive Committee HIV/AIDS Strategy Workshop held in August last year, to which I was invited in order to share my own experiences, the need to equip line managers to deal with the challenges of managing HIV/AIDS in the workplace was identified as an organizational priority.

During last year's World AIDS Day function the SASA Executive Director, Trix Trikam, referred to the trend that sees more and more SASA employees voluntarily approaching their managers and disclosing their HIV status. Just responding appropriately to such disclosures requires a level of understanding and skill that for many of us probably needs further development.

In formulating my research topic it was agreed that such research could play an invaluable role in eliciting information that will help SASA to achieve its goal of better equipping line management to face the many and varied challenges of HIV/AIDS in the workplace.
The findings of the study will enable SASA to have a clear understanding of the extent to which managers and supervisors believe they are able to manage HIV/AIDS in the

workplace and of the nature of any development needs that may exist e.g. counseling skills.

Supervisors and managers will be able through the research to communicate any needs they have in this regard. The recommendations coming out of the research will influence the SASA approach and assist SASA to determine how to maximize the use of its limited funds, so that maximum benefit is realized.

Request

In order for me to achieve the objectives of my research, I have drawn up the attached questionnaire. I would be most grateful if you would use a little of your valuable time (approximately 20 minutes) to fill in this questionnaire.

The information collected via the questionnaire will be reported in a statistical format. The statistical findings of the study will be put on the GroupWise noticeboard.

Response Procedures

If you are comfortable disclosing your details, then you can fill in the questionnaire electronically and return it to me via the e-mail. If you wish to maintain full confidentiality you would need to print out the questionnaire and return it to me via the internal mail: Mrs. P Naidoo at Darnall, c/o SASA Cane Testing Service, Kwa-Shukela (Cane Testing Services post is sorted by centre at Kwa-Shukela and then sent to each area).

Deadline

In order for me to meet my deadlines related to my research, I need the questionnaires to be returned as soon as possible but **by no later than 10 October 2003**.

I appreciate the fact that you are extremely busy but I would be extremely grateful if you would assist me by filling in the attached questionnaire. Please do not hesitate to contact me with any queries on 082 650 8448 or to e-mail me.

Thanking you in anticipation for your time and effort.

Yours Sincerely

P. Naidoo (Mrs.)
Cane Testing Manager
Darnall & Amatikulu
predhie.naidoo@sasa.org.za

Appendix Two

Note that the questions that are in Italics were reversed scored.

HIV/AIDS Questionnaire

SASA is concerned about what impact HIV/AIDS is having on the working life of line managers, especially regarding management of employees that are infected. To this end, a brief questionnaire has been prepared to ascertain the level of knowledge, attitude, and the training needs of line managers. Your cooperation in filling this questionnaire as honestly as possible would be highly appreciated. All information given will be kept in the strictest of confidence.

Please note that by you filling in this questionnaire you are giving consent for the information collected to be used in a statistical format. The statistical findings will be put on the GroupWise noticeboard.

Please reply by the 10 October 2003

Replies can be e-mailed to predhie.naidoo@sasa.org.za

If you wish to maintain full confidentiality you would need to print out the questionnaire and return it via the internal mail: Mrs. P Naidoo at Darnall c/o SASA Cane Testing Service, Kwa-Shukela

Or posted via external mail to Predhie Naidoo, CTS Manager, PO Box 94, Darnall, 4480

Section A - Biographical Information

Please select the appropriate box with a **v** . *For electronic answers copy the tick and paste it at the end of the word in the box.*

1 Age:	20-29	30-39	40-49	50-59	>60
2. Gender:	Male	Female			
3 Race:	Black	Indian	White	Coloured	
4 Marital status:	Married	Divorced	Single	Life Partner	
5 Grade:	C4	C5	D1/2	D3	D4	D5	E
6 Total number of employees reporting to you, directly & indirectly.	0-5	6-10	11-20	21-30	>31
7 Your employees are primarily:	A & B band	B & C band	C & D band		
8 Number of years in your current position:	0-5	6-10	11-15	16-20	>21
9 Your work is located in:	Durban & Surroundings	KZN South	KZN North	KZN Midlands	Mpumalanga
10 Classification of your work area:	Urban	Semi Urban	Semi Rural	Rural	

Section B - Knowledge

Please indicate to what extent you agree with the following statements by selecting the appropriate box with **v.** *For electronic answers copy the tick and paste next to the number.*

1 There is a difference between HIV and AIDS.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

2 The HIV virus causes AIDS.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

3 HIV/AIDS can be cured.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

4 People from poor families are more likely to contract HIV/AIDS.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

5 Someone can get HIV/AIDS by touching someone who has the virus.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

6 Using a condom is sufficient protection against getting HIV during sexual intercourse.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

7 HIV can be cured if diagnosed early and treated.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

8 People can be vaccinated against HIV/AIDS.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

9 Someone who is HIV positive can look healthy.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

10 You can get HIV/AIDS by drinking from the same glass used by an infected person.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

11 HIV/AIDS is going to affect every one regardless of our status.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

12 Which of the following indicates the way a person can contract HIV/AIDS? Please indicate your answer by selecting yes (Y), no (N) or unsure (U) with a tick v.

	Y	N	U		Y	N	U
a) Intravenous Drugs				g) Blood Transfusion			
b) Having sex with an infected person				h) Saliva			
c) Not always using a condom				i) Mosquito Bite			
d) Infected mother to baby				j) Homosexuality			
e) Infected mother breast feeding				k) Kissing on the lip			
f) Having more than one sexual partner				l) Infected needles			

Section C - Attitude

1 If I had HIV/AIDS I would disclose this to the person closest to me.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

2 I am prepared to share toilet facilities with HIV/AIDS employees.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

3 I am willing to have an anonymous HIV/AIDS test.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

4 I would hug someone who I know has HIV/AIDS.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

5 I would allow someone whom has HIV/AIDS to hold my child or a child I care for.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

6 People who practice unsafe sex deserve to get HIV/AIDS.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

7 Black people are more likely to contract HIV /AIDS.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

8 All people infected with HIV/AIDS are promiscuous (have many sexual partners).

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

9 Compulsory testing should be carried out for the safety of everyone.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

10 For the protection of everyone, Management should divulge the HIV status of infected employees to other employees.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

11 I would render first aid treatment to someone who has HIV/AIDS.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

12 If someone had HIV/AIDS it would matter to me how they contracted it.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

Section D – Evaluation of Training needs

1 Do you know anyone who has/had HIV/AIDS?

1 Yes	2 No	3 Suspect but don't know for sure.	4 Don't know

2 Where employees are, or you suspect that they are HIV positive, to what extent is their status affecting operations/the department?

1 Not a problem	2 Somewhat a problem	3 Serious Problem	4 Very Serious Problem	5 Don't know

3 General information on HIV/AIDS is readily available to all SASA employees.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

4 SASA provides sufficient information to assist me in managing the impact of HV/AIDS in my operation/department.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

5 I have the necessary skills to discuss HIV/AIDS with my employees.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

6 As a line manager it is not my responsibility to deal with any issues related to HIV/AIDS and my employees.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

7 If one of my employees disclosed their status to me, I would know how to respond.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

8 If an HIV/AIDS infected employee approached me for advice/guidance; I would be able to do this effectively.

1 Strongly Disagree	2 Disagree	3 Don't Know	4 Agree	5 Strongly Agree

9. The following training can be made available to assist in the managing HIV/AIDS employees. Please indicate which aspects of the training you believe would assist you.

a) The facts, myths, and impact of HIV/AIDS.

1 Least Important	2 Somewhat important	3 Not required	4 Important	5 Highly Important

b) The legal and safety aspects of managing HIV/AIDS infected employees and the risks in the workplace.

1 Least Important	2 Somewhat important	3 Not required	4 Important	5 Highly Important

c) The Business impact of AIDS- reduced productivity and costs.

1 Least Important	2 Somewhat important	3 Not required	4 Important	5 Highly Important

d) Counseling training to enable managers to deal with issues such as disclosure and stress/grief of infected employees.

1 Least Important	2 Somewhat important	3 Not required	4 Important	5 Highly Important

e) How to respond to employee concerns regarding working with HIV/AIDS infected employees.

1 Least Important	2 Somewhat important	3 Not required	4 Important	5 Highly Important

f) Job accommodation strategies together with case studies on how to deal with the everyday operational issues of HIV/AIDS employees.

1 Least Important	2 Somewhat important	3 Not required	4 Important	5 Highly Important

10 Is there any other assistance that you require which would help you to manage HIV/AIDS employees?

_____

_____

_____

_____

_____

_____

_____

11 Do you have any other suggestions for management regarding the management of HIV/AIDS in SASA?

_____

_____

_____

_____

_____

_____

Thank you for taking the time to answer this questionnaire.

Appendix Three

R E L I A B I L I T Y A N A L Y S I S

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
B1	74.5472	27.8692	.4192	.6177
B2	74.4434	28.4587	.3419	.6265
B3	74.5755	27.1800	.4408	.6123
B4	75.4057	27.9577	.1721	.6554
B5	74.4340	28.9337	.2418	.6376
B6	75.4528	30.0025	.0313	.6754
B7	74.8302	26.2947	.4542	.6069
B8	74.5283	27.9278	.4619	.6152
B9	74.4623	28.4605	.4119	.6216
B10	74.7170	28.3001	.2747	.6334
B11	74.5000	29.2048	.2686	.6350
B12A	76.1887	29.7355	.2447	.6381
B12B	75.9151	31.7356	.0000	.6516
B12C	76.0094	31.6094	-.0041	.6548
B12D	75.9623	31.9414	-.0886	.6569
B12E	76.3774	30.6181	.0552	.6588
B12F	76.1226	31.7658	-.0534	.6619
B12G	76.0472	30.8454	.1331	.6473
B12H	76.5660	29.0289	.2687	.6347
B12I	76.2170	30.0763	.1499	.6471
B12J	76.7358	29.7200	.2749	.6360
B12K	76.1415	29.2274	.3385	.6301
B12L	75.9528	31.5501	.0489	.6511

Reliability Coefficients

N of Cases = 106.0 N of Items = 23

Alpha = .6503

Appendix Four

R E L I A B I L I T Y A N A L Y S I S				
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
C1	42.2843	35.1956	.1880	.7697
C2	42.7157	31.6312	.5118	.7378
C3	42.4020	33.5497	.3890	.7516
C4	42.3627	33.0057	.5337	.7411
C5	42.8922	31.7605	.3940	.7508
C6	42.9118	30.8337	.4233	.7477
C7	42.9804	31.5838	.3940	.7510
C8	42.3725	32.5529	.4627	.7440
C9	43.7157	30.9976	.3852	.7536
C10	42.8235	31.4339	.4523	.7435
C11	43.0098	33.4355	.3620	.7537
C12	42.9706	32.3259	.4082	.7488
Reliability Coefficients				
N of Cases = 102.0			N of Items = 12	
Alpha = .7656				

Appendix Five

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
D1	46.9600	29.6752	-.2289	.6780
D2	45.8600	25.8792	.0835	.6424
D3	45.0000	26.1818	.1360	.6243
D4	45.4800	25.7673	.1441	.6253
D5	45.6900	23.9332	.3277	.5916
D6	44.6000	26.9697	.0634	.6340
D7	45.3300	23.7991	.3891	.5816
D8	45.5500	23.3611	.4181	.5753
D9A	44.7500	24.2096	.3073	.5956
D9B	44.4000	24.4444	.4178	.5824
D9C	44.6500	24.3308	.3725	.5864
D9D	44.3700	25.5284	.2712	.6035
D9E	44.3900	23.4322	.5463	.5620
D9F	44.6400	23.3236	.4963	.5655

Reliability Coefficients

N of Cases = 100.0 N of Items = 14

Alpha = .6231

Appendix Six

R E L I A B I L I T Y A N A L Y S I S

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
B1	170.1134	122.4974	.4313	.7376
B2	169.9485	125.1536	.3121	.7426
B3	170.0928	123.2309	.3689	.7397
B4	170.9072	124.8767	.1471	.7503
B5	169.9897	124.3436	.2822	.7429
B6	170.9485	134.2369	-.1956	.7680
B7	170.3196	122.2614	.3733	.7387
B8	170.0309	125.7386	.3211	.7430
B9	170.0206	125.5412	.2960	.7433
B10	170.2268	122.0730	.3903	.7381
B11	170.0515	123.6327	.3895	.7396
B12A	171.6907	128.0909	.1491	.7480
B12B	171.4536	130.3546	.0000	.7501
B12C	171.5155	131.2315	-.1347	.7527
B12D	171.5052	130.2942	-.0045	.7507
B12E	171.9072	129.9601	-.0128	.7542
B12F	171.6082	132.1783	-.1911	.7555
B12G	171.5670	130.3939	-.0228	.7517
B12H	172.1340	125.5756	.2477	.7445
B12I	171.7629	128.1411	.1058	.7495
B12J	172.2680	127.1357	.2370	.7457
B12K	171.6804	127.4280	.1951	.7467
B12L	171.4948	129.9401	.0629	.7498
C1	170.0928	124.5226	.2770	.7431
C2	170.5052	120.8151	.4252	.7360
C3	170.1753	121.0419	.5019	.7345
C4	170.1546	122.8196	.4580	.7375
C5	170.7010	121.4409	.3253	.7401
C6	170.6598	119.0393	.3850	.7363
C7	170.7216	121.1821	.3347	.7395
C8	170.1340	121.8256	.4100	.7374
C9	171.5052	122.2109	.2420	.7448
C10	170.6186	123.5509	.2483	.7441
C11	170.7938	124.8112	.2529	.7440
C12	170.7320	122.6982	.3189	.7408
D1	172.8351	134.4100	-.2340	.7644
D2	171.7010	126.9618	.0763	.7540
D3	170.8866	131.1849	-.0796	.7582
D4	171.3711	130.9650	-.0705	.7593
D5	171.5464	123.2296	.2682	.7431
D6	170.4742	119.8144	.5250	.7325

R E L I A B I L I T Y A N A L Y S I S

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Alpha if Item Deleted
D7	171.2062	123.4570	.2852	.7424
D8	171.4227	123.2257	.2861	.7423
D9A	170.5876	127.4948	.0830	.7520
D9B	170.2474	126.4590	.1979	.7463
D9C	170.5052	128.8359	.0385	.7530
D9D	170.2268	125.7397	.2327	.7450
D9E	170.2371	124.8286	.2882	.7429
D9F	170.4948	124.3984	.2651	.7435

Reliability Coefficients

N of Cases = 97.0 N of Items = 49

Alpha = .7498