Namibia principals' knowledge and attitudes towards HIV/AIDS and their compliance with the ministry's national policy

Shamani-Jeffrey Shikwambi

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NAMIBIA PRINCIPALS' KNOWLEDGE AND ATTITUDES TOWARDS HIV/AIDS AND THEIR COMPLIANCE WITH THE MINISTRY’S NATIONAL POLICY

A Dissertation
Submitted
In Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

Approved:

Victoria Robinson, Chair
Dr. Radhi Al-Mabuk, Co-Chair
Dr. Thomas Capshew, Member
Dr. John Henning, Member
Dr. Greg Reed, Member

Shamani-Jeffrey Shikwambi
University of Northern Iowa
July 2005

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Dr. Victoria Robinson, Chair

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Dr. Susan Koch
Dean of the Graduate College

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ABSTRACT

Human Immunodeficiency Virus (HIV) that causes Acquired Immunodeficiency Syndrome (AIDS) is infecting school-age children at an alarming rate. Effective education is the only prevention at this time. School principals can serve as a vital component in the prevention of HIV/AIDS in school-age children. The purpose of this study was to examine the knowledge and the attitudes of school principals in Namibia towards HIV/AIDS. The study also examined the extent of Namibian school principals’ awareness level and implementation practices of the Namibian HIV/AIDS National Policy.

One hundred and forty-three school principals completed the HIV/AIDS Knowledge and Attitudes Scales for Teachers (Koch & Singer, 1998). The design of the study was a mix of qualitative and quantitative research in order to provide in-depth information. Interviews provided rich descriptions of seven school principals about their awareness and implementation process of the policy document.

Survey questions were analyzed using descriptive statistics, frequencies, one-way analysis of variance
(ANOVA), Tukey post hoc analysis, and Person Product-Moment Correlation. Triangulated in-depth interviews were analyzed to identify emerging themes. Results indicated that Namibian school principals do not have complete knowledge about HIV/AIDS. Respondents were knowledgeable regarding causes of transmission, but lacked information on the likelihood of transmission, which may be the area of concern in perpetuating stigma and discrimination.

Analysis of attitudes towards HIV/AIDS indicated that school principals were positive. However, attitudinal differences existed between transmissions through heterosexual or homosexual contact. School principals exhibit moral judgment towards individuals who contracted AIDS through homosexual contact significantly more than towards those who contracted AIDS through heterosexual lifestyle. No relationship was found between knowledge level and attitudes level among the participants. The results of this study provided implications for training of Namibian school principals in HIV/AIDS-related issues.
To my mother

Ndeshimona Louisa ya Nikanor Shikwambi
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### TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF TABLES .................. x</td>
</tr>
<tr>
<td>LIST OF FIGURES .................. xii</td>
</tr>
<tr>
<td>CHAPTER I. INTRODUCTION ............. 1</td>
</tr>
<tr>
<td>Statement of the Problem ............. 3</td>
</tr>
<tr>
<td>Purpose of the Study ............. 4</td>
</tr>
<tr>
<td>Conceptual Framework ............. 5</td>
</tr>
<tr>
<td>Definition of Terms ............. 9</td>
</tr>
<tr>
<td>Limitations ................... 11</td>
</tr>
<tr>
<td>Assumptions of the Study .......... 12</td>
</tr>
<tr>
<td>Organization of the Paper .......... 12</td>
</tr>
<tr>
<td>CHAPTER II. LITERATURE REVIEW .......... 14</td>
</tr>
<tr>
<td>Introduction ................... 14</td>
</tr>
<tr>
<td>HIV/AIDS: Sub-Saharan Africa Overview .......... 16</td>
</tr>
<tr>
<td>HIV/AIDS: Namibia Overview ........... 18</td>
</tr>
<tr>
<td>Knowledge and Attitudes about HIV/AIDS .......... 23</td>
</tr>
<tr>
<td>Knowledge about HIV/AIDS .......... 25</td>
</tr>
<tr>
<td>Attitudes towards HIV/AIDS .......... 32</td>
</tr>
<tr>
<td>The Role of School Principals in Addressing HIV/AIDS .......... 35</td>
</tr>
<tr>
<td>HIV/AIDS School Policy ........... 40</td>
</tr>
</tbody>
</table>
Stigma and Discrimination ................. 45
The Need for HIV/AIDS Education .......... 55
HIV/AIDS Education in Rural Areas ......... 57

CHAPTER III. METHODOLOGY ..................... 61
The Purpose of the Study ..................... 61
The Research Questions ..................... 61
The Model of the Study ..................... 62
Participants .................................. 63
The Survey Instrument ..................... 65
Modification of the Survey Instrument ..... 69
Interview and Interview Protocol .......... 71
Data Collection ................................ 73
Data Analysis ................................ 74

CHAPTER IV: RESULTS AND DISCUSSION .............. 78
Introduction ................................ 78
Participants ................................ 78
School Principals' Knowledge About HIV/AIDS .... 86
School Principals' Attitudes Towards HIV/AIDS ..... 95
Relationship Between Knowledge and Attitudes ..... 103
Awareness and Implementation of the National HIV/AIDS Policy for Education Sector .......... 104
Open-Ended Questions .................... 107
<table>
<thead>
<tr>
<th>APPENDIX D: INTERVIEW PROTOCOL</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPENDIX E: PERMISSION TO CONDUCT STUDY GRANTED BY</td>
<td></td>
</tr>
<tr>
<td>UNIVERSITY OF NORTHERN IOWA HUMAN PARTICIPANTS</td>
<td></td>
</tr>
<tr>
<td>REVIEW COMMITTEE</td>
<td>207</td>
</tr>
<tr>
<td>APPENDIX F: PERMISSION TO CONDUCT STUDY GRANTED BY</td>
<td></td>
</tr>
<tr>
<td>THE MINISTRY OF BASIC EDUCATION, SPORT, AND CULTURE</td>
<td></td>
</tr>
<tr>
<td></td>
<td>209</td>
</tr>
<tr>
<td>APPENDIX G: LETTER ACCOMPANYING THE SURVEY FROM THE</td>
<td></td>
</tr>
<tr>
<td>PERMANENT SECRETARY'S OFFICE</td>
<td>212</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>TABLE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Frequency Distribution of Gender and Age</td>
<td>80</td>
</tr>
<tr>
<td>2. Frequency Distribution of Grade Levels of School</td>
<td>80</td>
</tr>
<tr>
<td>3. Frequency Distribution of Years as Principal</td>
<td>81</td>
</tr>
<tr>
<td>4. Frequency Distribution According to Educational Regions</td>
<td>82</td>
</tr>
<tr>
<td>5. Frequency Distribution of Educational Qualification</td>
<td>83</td>
</tr>
<tr>
<td>6. Frequency Distribution of Race/Ethnicity</td>
<td>85</td>
</tr>
<tr>
<td>7. Frequency Distribution of Institutional Affiliation and Location of the Participating School</td>
<td>86</td>
</tr>
<tr>
<td>8. Distribution of School Principals' HIV/AIDS General Knowledge Subtest 1</td>
<td>88</td>
</tr>
<tr>
<td>10. Distribution of HIV/AIDS Knowledge Score</td>
<td>92</td>
</tr>
<tr>
<td>11. Knowledge Statistical Analysis According to Demographic Variables</td>
<td>93</td>
</tr>
<tr>
<td>12. Results of Namibian School Principals' Attitudes Towards HIV/AIDS in Percentage and Number of Respondents</td>
<td>96</td>
</tr>
<tr>
<td>13. Attitudes Questions with the Highest and Lowest Mean Score</td>
<td>100</td>
</tr>
<tr>
<td>14. Attitudes Statistical Analysis According to Demographic Variables</td>
<td>102</td>
</tr>
<tr>
<td>15. Responses in Percentages to the Policy-Related Questions</td>
<td>105</td>
</tr>
</tbody>
</table>
16. Open-Ended Interviewed School Principals
Demographics ........................................ 109
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>FIGURE</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Regional Map of Namibia</td>
<td>22</td>
</tr>
</tbody>
</table>
CHAPTER I
INTRODUCTION

Infection with human immunodeficiency virus (HIV) and the eventual development of acquired immuno-deficiency syndrome (AIDS) disorder continue to be a public health crisis of frightening magnitude all over the world. The Joint United Nations Programme on HIV/AIDS (UNAIDS) has declared HIV/AIDS as a global security crisis. An estimated 45 million (Joint United Nations Programme on HIV/AIDS [UNAIDS], 2004) persons worldwide are already infected with the virus, and yet there is neither a cure nor a vaccine for HIV or AIDS.

HIV/AIDS impacts people regardless of their educational level, economic or social status, race, sex, age, or creed. HIV infects with total indifference, especially individuals who engage in risky sexual behaviors. HIV/AIDS marks a severe developmental crisis in many countries of the world, and especially in Sub-Saharan Africa, which has been devastated by the effects of high-risk sexual behavior. Sub-Saharan Africa remains by far the worst affected region of the world. Namibia, the country of focus for this study, is one of seven countries in Sub-Saharan Africa with HIV prevalence rate among adults in
excess of 20% (UNAIDS, 2003; United States Agency for International Development [USAID], 2003b). At the present, the most effective way to prevent the transmission of HIV and consequently developing AIDS is through education. In the absence of a vaccine, some researchers assert the best vaccine is for schools to play an active role in mitigating the pandemic (Caceres, Rosasco, Manuel, & Hearst, 1994; Coombe & Kelly, 2001). A primary goal of prevention efforts is to interrupt the transmission of HIV by educating people, especially young people, who make up to 50% of deaths among individuals aged 15-49 years old in Namibia (USAID, 2003b) to change behaviors that eventually will help reduce the risk of infection. Additionally, developing policies to offset crisis and discrimination is preventive in nature (Abt Associates, 2002).

Public health services have frequently called on and indicated the necessity for AIDS education programs and policies by emphasizing that schools have the capacity and responsibility to help assure that young people understand the nature of the AIDS pandemic and the specific actions they can take to prevent HIV infection, especially during their adolescent years (DiClemente, Zorn, & Temoshok, 1986; McCormick, et al., 2000). In Namibia, under the Ministry of
Basic Education, Sport and Culture schools serve 558,808 students every day (Abt Associates, 2002) and most school-based HIV/AIDS prevention programs may be the only formal instruction students will receive during this critical crisis as they face one of the most serious health predicaments of their lives. Schools must play a role in the effort to control or eventually stop the spread of this disease (Futrell, 1988).

Few topics in education ignite more emotions or generate more opposing viewpoints than sex education. Teaching HIV/AIDS entails talking openly about issues of sexuality in schools, a topic seen as taboo for many years (Savage & Tchombe, 1994). AIDS also leads to the topics of dying and death, which makes people uncomfortable to discuss. That is why the specific scope and content of AIDS education in schools should be locally determined and should be consistent with the parental and community values (Ministry of Basic Education, Sport, and Culture [MBESC], 2003).

**Statement of the Problem**

HIV/AIDS not only affects individuals, but it also impacts systems. Until recently, HIV/AIDS has been perceived primarily as a health problem, which can be
contained by effective health education programs. But the deadly virus has not been contained and continues to spread so widely that it is now having a profound adverse impact on all other institutions of society, including the education sector.

Namibia is one of the seven countries highly infected with HIV/AIDS in Southern Africa and it has a growing HIV/AIDS epidemic (UNAIDS, 2002; USAID, 2003a). Over 20% of the population is HIV positive (USAID, 2003b). Those especially at risk of infection are the school-age population. And once these school-age children get infected with HIV, they then end up facing challenges associated with stigma and discrimination (Holt, Houg, & Romano, 1999). Because of the long incubation period of the virus, researchers now believe that many of those young people were infected as adolescents while in schools. It is projected that 50-65% of Namibian 15-year-olds will die of HIV/AIDS-related illnesses within the next 30 years (USAID, 2003b).

**Purpose of the Study**

The main purpose of this study is to examine Namibian school administrators' knowledge and attitudes towards HIV/AIDS to determine their willingness to work with
colleagues who are either HIV positive or have AIDS, and their willingness to educate students who are HIV positive or who have AIDS. The study will also examine how and to what extent school administrators have implemented the Namibian educational national policy on HIV/AIDS in their schools. This aspect of the study will attempt to understand and draw conclusions on the process used by school administrators in the implementation of the policy mandate.

Conceptual Framework

The theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), which has been established as an across-the-board model of behavior and uses a framework that sees intentions as the main influence in one’s behavior, serves as the conceptual framework to guide this study. The theory provides a framework for linking behavior to specific behavioral intentions such as attitudes towards behaviors, subjective norms, and the weight of these predictors.

This model can be used to predict intention on personal and normative mechanism, provided there is a relationship between the level of specificity of predictors and criteria variables (Madden, Ellen, & Ajzen, 1992). The
theory of reasoned action operates on the assumption that human beings have control over their behavior, and are in position to seek out, use, and process all available information about expected decisions before action (Crawley & Koballa, 1994). In other words, the theory posits that human beings are not controlled by thoughtless whims, and that they consider outcomes before deciding to engage in a certain behavior. The theory of reasoned action has not been embraced by social scientists without criticism. Researchers J. D. Fisher and W. A. Fisher (2000), and Bryan, Aiken, and West (1996), have criticized the theory with reference to behaviors not being entirely dependent on one's volitional control. According to J. D. Fisher and W. A. Fisher (2000), intention is not the same as actual behavior, and the theory is better for predicting choice between alternatives than predicting one behavior. Despite this criticism, the theory of reasoned action provides for the weighting of attitudes and normative components in order to reflect their relative importance in determining intentions.

According to Beck and Ajzen (1991) a person's intention to perform a behavior is related to a combination of attitudes towards performing the behavior and subjective
norms. Intentions are assumed to capture the motivational factors that influence behavior. They are indicators of how hard people are willing to try, and how much of an effort they are planning to exert in order to perform the behavior. The subjective norm (W. A. Fisher, J. D. Fisher, & Rye, 1995) is the social pressure perception that important others think that one should or should not perform the behavior in question. It is a function of normative beliefs regarding the performance of the behavior and the motivation to comply with these normative beliefs. People prefer other people whose belief systems are similar with their own. They prefer those whose belief systems are continuous rather discontinuous or opposing one another.

Intentions, in turn, are influenced by the attitudes towards performing the behavior. The attitudes towards the behavior are assumed to be a function of one’s beliefs, and that performing the behavior in question will lead to various outcomes of those beliefs (Basen-Engquist & Parcel, 1992). Attitudes result in a behavior that can be labeled as either positive or negative. There is a general agreement among educators and researchers that attitudes are learned and that how one feels about a situation or
individual will determine the attitude that will shape one's behavior.

According to Eagly and Chaiken (1993) intentions are driven by attitudes to a greater extent than by subjective norms. In some circumstances a person's attitude will not be in agreement with his/her perceptions of subjective norms, and some people are more influenced by attitudes as others are influenced by normative norms. With regard to school administrators to implement and support the HIV/AIDS policy, the assumption is that they are free to choose whether to support or not support the implementation process of it to its fullest possible extent. Based on this assumption it is fair to conclude that school administrators may not fully implement the policy as they may be under social pressure to favor certain approaches of dealing with the epidemic such as not talk about it at all, or listening to members of the community that are opposing teaching of sex education in schools.

In summary, the theory of reasoned action considers the personal and normative beliefs of individuals, in this case of school administrators, and the combinations of attitudes and subjective norms rather than just knowledge. These essentials may be the motivating factors in changing
risky behaviors and schools may be the right place to bring about those changes.

**Definition of Terms**

**Attitudes:** the first determinant of behavioral intention. It is the degree to which the person has a favorable or unfavorable evaluation of the behavior in question (Ajzen & Fishbein, 1980).

**Behavior:** the transmission of intention or perceived behavioral control into action (Ajzen & Fishbein, 1980).

**Behavioral intention:** indications of how hard people are willing to try and of how much an effort they are planning to exert, in order to perform the behavior. Influenced by three components: person’s attitude toward performing the behavior, the perceived social pressure, called *subjective norm*, and perceived behavioral control (Ajzen & Fishbein, 1980).

**Epidemic:** the occurrence of more cases of disease than expected in a given area or among a specific group of people over a particular period of time.

**HIV/AIDS:** acquired immuno deficiency syndrome (AIDS) is a disorder caused by the human immunodeficiency virus (HIV), which, like all viruses, is a submicroscopic parasite that

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can only survive and reproduce inside the cells of a host organism (Horn, 2001).

**HIV/AIDS education**: a teacher initiated intervention that addresses the HIV virus or the AIDS disease, including accurate scientific aspects of HIV/AIDS, modes of transmission, means of prevention, or any skills and knowledge that facilitate preventive behaviors (Burak, 1992).

**Ministry of Education**: Ministry of the national government responsible for the administration of public educational system and for the setting of national educational standards as well as for the promotion of cultural activities.

**Normative beliefs**: beliefs about what others think about behavior (Ajzen, 1988).

**Pandemic**: an epidemic occurring over a very wide area, such as countries or continents and usually affecting a large proportion of the population.

**Sex education**: is the process of acquiring information and forming attitudes and beliefs about sex, sexual identity, relationships, and intimacy (United Nations [UN], 1948).

**Subjective norms**: the influence of social pressure that is perceived by the individual (normative beliefs) to perform
or not perform a certain behavior. This weighted by the individual’s motivation to comply with those perceived expectations (motivation to comply; Ajzen & Fishbein, 1980).

Limitations

It is important to note the limitations of this study. Data gathering for this study was collected through a survey research methodology and semi-structured face-to-face interviews. All school principals who participated did so as volunteers from a randomly selected group. The sample for this study was drawn from one African nation and only school administrators whose schools were on the address list obtained from the Ministry of Education, Sport and Culture were asked to participate, thus generalizability of the findings to other populations is limited. Despite these limitations, this study addresses knowledge and attitudes of school administrators towards HIV/AIDS and regarding the implementation process of the policy mandate, therefore, the study does provide useful information on which future research can build.
Assumptions of the Study

For the purpose of this study:

1. It was assumed that the participants in this study would complete the survey instrument themselves, and that the guarantee of anonymity would facilitate their honest responses.

2. It was assumed that the random sample in this study, are representative of school principals in Namibia.

3. The researcher assumed that the participants responded truthfully to the survey and to the semi-structured questions asked.

Organization of the Paper

This paper is organized into five chapters. Chapter one presented an introduction, statement of the problem, significance of the problem, definition of terms, and the organization of the paper. The second chapter provides a literature review of the global HIV/AIDS pandemic, with emphasis on Sub-Saharan Africa and especially focusing on Namibia. The internal and external factors school administrators have to consider in addressing the epidemic will be examined such as stigma and discrimination, and the need for HIV/AIDS education. The role of school administrators in mitigating the epidemic is also
highlighted in this chapter. The chapter will also focus on school administrators' knowledge and attitudes towards HIV/AIDS.

The third chapter describes the methodology used in this study including the participants, instruments and procedures by the researcher for data collection. In chapter four, the results of the study will be reported. The fifth and final chapter will provide a discussion of the results, conclusion, and implications for school administrators and recommendations for further study.
CHAPTER II

LITERATURE REVIEW

In this chapter the current literature as relating to the topic of the study will be reviewed with emphasis on (a) the current global situation of HIV/AIDS with particular emphasis on (b) Sub-Saharan Africa and (c) the country of Namibia. This section will also focus on (d) knowledge and attitudes towards HIV/AIDS, (e) the role of the school principal in addressing HIV/AIDS, and (f) focusing on the importance of an education policy as it relates to HIV/AIDS. Also, (g) stigma and discrimination as barriers to addressing HIV/AIDS were explored and (h) the need for HIV/AIDS education in schools.

Introduction

Since the first clinical evidence of acquired immuno deficiency syndrome was reported in 1981, AIDS has become the most devastating disease humanity has ever known and faced. Ever since the pandemic began, 45-million people have been infected with the virus worldwide (UNAIDS, 2003). HIV/AIDS is now the leading infectious cause of death and it is the world’s fourth largest killer (UNAIDS, 2004; World Health Organization [WHO], 2003b).
AIDS stands for acquired immuno deficiency syndrome. It results from an infection with a virus known as HIV. Two distinct types of HIV cause AIDS: HIV-1 and HIV-2 (McCune, 2001). The HIV disease is a retrovirus that undermines and ultimately destroys the immune system (Klatt, 2001; Robertson, Anderson, Bradac, & Carr, 2000). Before the advent of AIDS, retroviruses were practically unknown to medical doctors. The virus infects and attacks the lymphocytes, which are generally referred to as t-cells. The t-cells are responsible for regulating the body's immune system and once the body's total t-cell count falls below 200, the person is classified as having AIDS (Horn, 2001).

As HIV/AIDS has entered its third decade, the pandemic continues to spread and the world has realized that AIDS is the most dramatic, pervasive and tragic endemic in recent history. The virus has challenged the foundations of public health infrastructures and health-care delivery systems around the world, and it is beyond a crisis. The United States of America's Secretary of State, Colin Powell, in his address to the United Nations General Assembly in September 2003, referred to HIV/AIDS as a "threat to national security and that AIDS is more devastating than
any terrorist attack, any conflict, or any weapon of mass destruction. It kills indiscriminately, and without mercy” (United States Department of State, 2003a). The World Bank (2001), declared HIV/AIDS as a threat to global health, development, and security. Thus, in this sense there is no other way of describing this disease rather than HIV/AIDS has become and is a disease of mass destruction.

Today HIV/AIDS is one of the worst threats to sustainable development. The hard won development achievements of the previous decades by many nations of the world have rapidly been reversed by the pandemic. Because of the predominance of the impact of HIV/AIDS on all sectors of development, the World Bank (1999) recognizes that HIV/AIDS must be at the center of every sector’s development agenda, because this is a global human tragedy with negative developmental implications.

**HIV/AIDS: Sub-Saharan Africa Overview**

The countries of Sub-Saharan Africa are the hardest hit in the world (Center for Disease Control [CDC], 2000). International agencies such as UNAIDS (2004), World Bank (1999), and WHO (2000), all reported that HIV/AIDS is the leading cause of disease in Sub-Saharan Africa well above malaria, tuberculosis, and congenital disorders.
Approximately 26.6 million people in Sub-Saharan Africa are living with HIV/AIDS and approximately 3.2 million new infections occurred in Sub-Saharan Africa in 2003 (UNAIDS, 2004). Africa accounts for 70% of the adults, 80% of the children, and 69% of young people of the world infected with HIV/AIDS (UNAIDS, 2004).

In Sub-Saharan Africa the pandemic affects people in the prime of life, moving from at-risk populations to broader cross-sections of society. Eighty percent of those dying from AIDS in Sub-Saharan Africa are in the 20-49 year-old category (Ward, 2000). Many of those infected are young adults, with young women especially being the most vulnerable (Ainsworth & Semali, 1998; Gray & House, 1996; UNAIDS, 2004; Vandemoortele & Delamonica, 2000). The pandemic is changing the demographic structure of Africa and wiping out life expectancy gains. Many African nations are starting to feel the pinch as life expectancy is dropping rapidly from more than 60-years to 39-years, as is the case in Botswana, and from 72-years to 39-years in the case of Namibia (United Nations Development Programme [UNDP], 2003). The overwhelming majority of those infected with HIV are acquiring the virus through unprotected sexual
intercourse. Unfortunately, many more millions of people do not know they might carry the virus.

HIV/AIDS represents a severe development crisis for Sub-Saharan Africa. Even if effective prevention, treatment, and care programs are immediately implemented, the scale of the pandemic means that the human and socio-economic toll will continue to be massive for many generations to come (United States Department of State, 2003b).

In the absence of a vaccine, social behaviors have a large influence on the continuous spread of the pandemic, and thus urgent adjustments in social behaviors of all people is needed if there is going to be a halt on the HIV/AIDS pandemic.

HIV/AIDS: Namibia Overview

As in the rest of the world and countries in Southern Africa, the AIDS epidemic has hit Namibia with full force. In Namibia, HIV/AIDS needs to become everybody's business. The epidemic can no longer be perceived as a health issue only. It is a socio-economic problem with huge consequences, which erodes the hard work of years of national development. Namibia is one of the countries that have been hardest hit by the worldwide HIV pandemic.
Namibia ranks as one of the five most affected countries in the world, along with Zimbabwe, Botswana, South Africa, and Swaziland (UNAIDS, 2003). While many countries in Southern and Eastern Africa were already several years into major epidemics, Namibia remained relatively unaffected until in 1986, with the first four cases of HIV/AIDS reported and by 1996, the number climbed to 12,701, resulting in 68,196 cumulative infections in 1999. In 1999, a total of 14,866 new infections were reported and 8,028 were women, accounting for 54% of all new cases of Namibia (Dentlinger, 2004; Ministry of Health and Social Services [MOHSS], 2001).

In a country with a total population of 1.8 million, Namibia has a prevalence rate of 22% (UNAIDS, 2003). Life expectancy in this nation is only 39-years, while it would have been 72-years, in the absence of AIDS (UNAIDS, 2002). It is believed that since the start of the epidemic 60,000 children in Namibia have lost their mother or both of their parents to AIDS. There are currently 82,671 registered orphans in the country, but it is feared that Namibia will have about 251,054 orphans of which three-quarters or nearly 200,000 will be AIDS orphans in 2021 if the current situation is not reversed (Family Health International, 2004).
According to a study conducted by SIAPAC (2002b) in Windhoek, the capital city of Namibia, the HIV prevalence rate among the 15 to 49 years old group is expected to increase to 38% by 2005, if it continues to grow at the present rate. This high prevalence rate implies that close to one third of the population between 15 to 49 years old in Windhoek is likely to be infected. Currently, approximately 45,000 individuals in Windhoek are HIV positive. That number is expected to increase to 61,000 infected individuals by 2012. The populations of Windhoek and Oshakati respectively are projected to be 22% and 25% smaller than they would have been in the absence of AIDS by 2011. More than 20% of Swakopmund's adult population between 15 to 49 years old is also likely to be infected. Overall population growth in 2021 is projected to be 18% lower as a result of AIDS.

Namibia’s epidemic is driven by a complex array of socio-economic and cultural indicators specific to the Namibian context. The indicators include poverty (Dentlinger, 2004; Phororo, 2000), migration from rural to urban centers in search of work opportunities (Phororo,
2000; Williams et al., 2000), geographical inequalities in terms of access of services and information (Mutetwa, 2001; Sibanda, 2000), sexual norms and attitudes such as sex between older men and younger women (Dentlinger, 2004; Kelly, St. Lawrence, Smith, Hood, & Cook, 1987), and the unequal power dynamics between men and women (Dentlinger, 2004).

The main mode of HIV transmission in Namibia is through heterosexual sex (Dentlinger, 2004; USAID, 2003a). However, mother to child transmission is also prevalent with 6000 infants likely to be infected each year in the absence of a comprehensive countrywide prevention program (USAID, 2003b). Women in Namibia, unfortunately, bear the greatest burden of the HIV/AIDS epidemic, both as victims of the disease and as the primary caregivers for others who are afflicted (UNAIDS, 2003). According to Dentlinger (2004), the political region of Caprivi has the highest HIV/AIDS prevalence rate in the country at 43% of pregnant women testing positive for HIV/AIDS in 2002.

Although AIDS rates throughout Namibia are high, it appears the disease has spread fastest in the north and northeast portions of the country. Of the 13 political regions of Namibia, the 6 regions reporting the highest
adult HIV/AIDS rates are all located in the north and northeast region of Namibia, and are reporting AIDS rates higher than 40%. Two of these regions, Ohangwena and Caprivi, have reported rates higher than 50% (MOHSS, 2001). See Figure 1 for regional map of Namibia.

Figure 1. Regional Map of Namibia.
AIDS has significantly shortened the life span of Namibians, and has affected mostly those in the prime years of life. Alas, the impressive gains made by Namibia in terms of economic, political, and social development in the past 14 years of independence are being overshadowed by the HIV/AIDS epidemic.

Knowledge and Attitudes About HIV/AIDS

Ever since HIV/AIDS emerged on the Namibian scene, several studies (Bollo, 2002; Campbell, 2003; Hidinua, 2000; Hoases & Van der Veen, 1999; SIAPAC, 1994, 2002a) have been conducted on Namibians' level of knowledge and attitudes towards HIV/AIDS. Also, studies have been carried out on sexual behaviors and practices (Agronick et al., 2004; Caldwell & Caldwell, 1996; Peterson, Bakeman, Blackshear, & Stokes, 2003). No other area of HIV-related research has received so much attention as has the knowledge and attitudes of various groups.

One of the factors believed to influence beliefs and attitudes associated with HIV/AIDS involve the factual knowledge or the amount of HIV/AIDS information one has about the virus and the disease (Denman, Pearson, Davis, & Moody, 1996; Owens, 1995; Wiener & Siegel, 1990). Many articles have been written with regard to the influence of
HIV-specific knowledge on beliefs and attitudes towards HIV/AIDS. Despite this, in more than three decades of research of dealing with the pandemic, only one study was found that specifically dealt with school administrators in the course of the literature review for this study.

A study by Keaster, Evans, Melville, and Cass (1995) surveyed 46 rural school principals from Louisiana about their knowledge and attitudes towards HIV/AIDS. This study discovered a lack of basic knowledge about different aspects of HIV and AIDS, which the researchers deemed as contributing factors to having negative attitudes towards those living with HIV and AIDS. In this study, the participants reported that they wanted more knowledge and information about HIV/AIDS and also identified a need for policies at the local level.

Studies about this topic have been conducted with several professions such as social workers (Owens, 1995; Peterson, 1991), nurses (Bowman, Brown & Eason, 1994), medical students (Chavis & Norman, 1995), adolescents (Denman et al., 1996; Siegel, DiClemente, Durbin, Krasnovsky, & Saliba, 1995), undergraduate students (Nicholas & Durrheim, 1995), psychologists (Berger, Handal, Searight, & Katz, 1998), regular classroom and special
education teachers (Evans, Melville, & Cass, 1992; Foley & Kittleson, 1993; Lin & Wilson, 1998; Singer, 1991). Unfortunately, this topic has not been explored with school principals as a group on its own. No studies have been conducted to inform the research community of the knowledge and attitudes towards HIV/AIDS of school principals. Yet school principals are the holding block between all the school stakeholders such as students, parents, teachers, policy-makers, and the community. School administrators can be extremely useful in increasing public awareness about HIV/AIDS.

Knowledge about HIV/AIDS

School-age children are at exceptional risk for infection with HIV because of their vulnerability and lack of accurate information to protect themselves. Currently it is estimated that 30,000 of Namibia’s children are HIV positive (SIAPAC, 2001). Unless drastic measures are implemented to halt the spread of the epidemic, especially among the school-age group, Namibia will have to face adverse effects in all spheres of development in the years to come. Since the virus can be transmitted sexually, people view the disease as having moral punishment or connotations that heighten fear, shame, stigma, and
discrimination. Such misconceptions about the virus have linked to negative attitudes towards those living with HIV or AIDS.

It is a well-documented fact that children model adults' behaviors, including teachers (Jaccard, Dittus, & Gordon, 2000). Therefore, school principals and teachers, as educators must model appropriate behavior that emphasizes problem solving and informed decision-making. Educators must also model behaviors that discourage discrimination and prejudice against persons with HIV/AIDS. This type of modeling by educators not only impacts students in their own classrooms, but also the school buildings in which they work. To help them model the necessary behaviors that will mitigate the epidemic, school principals and teachers have a responsibility to educate themselves about HIV/AIDS. They must be knowledgeable about the modes of transmission and the modes of prevention if they are to educate their students about how to protect themselves. Also, knowledge about transmission and prevention is necessary to calm the students' and parents' concerns about children with HIV/AIDS who are being educated in classroom settings with the rest of the student body.
Perrino, Gonzalez-Soldevilla, Pantin, and Szapocznik (2000) reviewed literature on the role of families and parents towards prevention of HIV infection among adolescents. HIV risk behaviors occur in a social context and it has become clear that the earliest and most effective way of intervening is in the context where one initially learns about relationships and behavior, which is the family. According to Perrino and colleagues (2000), evidence supports the impact parents have on their adolescents and once they fully embrace their responsibility, they can be the ideal change agents in HIV prevention among adolescents.

Osborne, Kistner, and Helgemo (1995) surveyed AIDS-related knowledge and attitudes of parents and their children to provide explanatory information about school policies concerning HIV infected children and to test hypotheses regarding links between parents' and children's HIV/AIDS related knowledge and attitudes. Results show that parents want more information about the presence of children infected by the virus in the schools than is permitted by law. About 30% of those parents surveyed by Osborne et al. (1995) objected to allowing HIV infected students in regular classrooms. Support was also found for
links between parents and children's attitudes towards HIV/AIDS. The study revealed that parents' greatest fears were related to their apprehension about contamination. The importance of educating parents about HIV/AIDS transmission and the inclusion of parents in the implementation of HIV/AIDS educational programs is critical.

A study by DiClemente et al. (1986) investigated 1,326 San Francisco adolescents' knowledge, attitudes, and beliefs about HIV/AIDS. The sample was students enrolled in family life education classes. The findings of the study revealed that students possess some knowledge of AIDS, although this knowledge is uneven. There was variability in knowledge across informational survey items, particularly about the precautionary measures adolescents can take during sexual intercourse to reduce the risk of infection. This study concluded that the development and implementation of school health education programs on AIDS and other sexually transmitted disease are needed for this population.

Dawson, Chums, Smith, and Carboni (2001) examined high school teachers' AIDS-related knowledge and attitudes. The 141 respondents to the survey included teachers of allied health, special education, humanities, and other
unspecified fields. The study found that teachers of allied health possess a fairly good understanding of HIV/AIDS, while teachers of the other disciplines had significantly less knowledge. Allied health teachers answered 78% of the questions correctly, while 59% of the knowledge questions were answered correctly by teachers in other disciplines. This study showed that although health teachers may likely be the one responsible for the HIV/AIDS education, it is important to keep in mind that students may seek a trusted teacher in another discipline for advice as well. Although 75% of the teachers stated that they could comfortably answer students’ questions about HIV/AIDS, the data suggest that the accuracy of their responses may be questionable.

Examining research conducted in Namibia, an impact assessment survey by Abt Associates (2002) found that over 25% of students in Namibia will become infected during or soon after graduating from high schools, as the survey showed that 74% of the students in the northern part of the country have inadequate knowledge of basic facts about HIV/AIDS compared to 54% of students in the south and central part of the country.

Another study by Talavera (2002) examined students’ knowledge in the Kunene region of Namibia. The survey found
that although there is a lot of information about HIV/AIDS in Namibia, the region's schools had very few materials. Of those that had information about HIV/AIDS, the materials were neither culturally sensitive nor school related. Materials were given to the schools with little or no explanation. Thus, it was up to the teachers and students to learn how to use the materials. A need exists for trained professionals such as nurses to explain how to use the materials when it is initially provided to schools.

Witte, Coleman, Schoemaker, and Lazell (2003) surveyed HIV/AIDS related knowledge and attitudes of urban youth in greater Windhoek, using a representative urban baseline survey of 800 respondents between the ages of 15 to 24 years. About 94.3% of the respondents in the survey were aware that the virus can be transmitted sexually and an overwhelming majority of 94.9% has heard of AIDS. While many youths are aware of HIV/AIDS, many reported not having heard of other sexually transmitted disease such as syphilis (40.8%), gonorrhea (47%), and genital warts (90.6%). Of those surveyed more than three-quarters (78.8%) reported that the last time they had sex they used a condom. On the other hand, 58.3% believed that if a person abstained from sex entirely they could be protected from
getting infected with the virus. This survey revealed that urban Namibian youth are either in the preparation or action stages with regard to HIV/AIDS prevention behaviors. Awareness of HIV/AIDS and prevention methods seems to be high.

Results from an anthropological assessment study of health risk behaviors undertaken in the northern part of Namibia by LeBeau, Fox, Becker, and Mufune (1999) revealed that most of the participants knew that AIDS exist in Namibia, but were confused over the different modes of transmission, causes of the disease and possibilities for a cure. The results showed a lack of knowledge of differentiation between HIV and AIDS. This study concluded that there is evidence that many people do not quite understand the realities of AIDS, and as a result may not posses the correct information on how to protect themselves against the possible infection of HIV.

For years social scientists have examined the connection between knowledge of a specific issue and the attitudes held by individuals or a group of people towards a certain subject. Social scientists expected that knowledge leads to socially acceptable behavior and attitudes. However, some researchers have argued that
knowledge only does not always lead to desired behavior or attitudes.

**Attitudes towards HIV/AIDS**

Having accurate knowledge about HIV/AIDS is critical to help counter myths, to reduce associated fear and anxiety that fuels stigma and discrimination, and to change behavior that puts individuals, especially young people at risk (Shrum, Turner, & Bruce, 1989). Several studies about attitudes towards HIV/AIDS find high levels of tolerance, acceptance and positive attitudes towards those infected with HIV or living with the AIDS disease (Serovich & Greene, 1997; Villarruel, Jemmolt, Howard, Taylor, & Bush, 1998). However, other studies reveal unfavorable and unsympathetic attitudes towards those infected with HIV or living with the disease (Carducci, Fransca, Grasso, Terzi, & Avio, 1995; Katz, Mills, Singh, & Best, 1995).

An Iranian study by Tavoosi, Zaferani, Enzevaeei, Tajik, and Ahmadinezhad (2004) about attitudes towards HIV/AIDS revealed that negative attitudes towards HIV-infected individuals were common. There is a substantial intolerant attitude towards AIDS and HIV positive patients. Forty-six percent of the students thought that a student with the virus should not be allowed to enter an ordinary
Thirty-five percent of respondents indicated that they prefer not to sit in a class where there is a HIV positive student, while 23% indicated they wouldn’t shake hands with HIV positive individuals if they knew about his/her seropositive status. In this study, attitude significantly correlated with knowledge. Students with less knowledge scores have more negative attitudes towards HIV positive people.

A study by Al-Owaish, Moussa, Anwar, Al-Shoumer, and Sharma (1999) on knowledge, attitudes, beliefs, and practices about HIV/AIDS in Kuwait demonstrated that 80% of the participants felt that individuals with HIV/AIDS should not be left to live freely in the community. Knowledge level is another possible predictor of attitude. This indicates that increasing knowledge levels of HIV/AIDS may produce more positive attitudes towards people living with the virus and disease (Carducci et al., 1995).

Cinell, Sankaran, McConatha, and Carson (1992) conducted a study of preservice education majors’ knowledge and attitudes towards HIV/AIDS. The instrument used in this study focused on knowledge and attitudes questions. The attitude section of the questionnaire focused on attitudes towards testing, confidentiality issues, support,
interactions with individuals infected with HIV, and the comfort level with HIV/AIDS classroom instruction. Fifty-one percent of the participants in this study had a positive acceptance towards students who are HIV positive, than 38% towards students who are living with full-blown AIDS. Ninety-two percent of the participants in the study believed that educators should be informed of a student with HIV attending their classes, while 71.8% responded that they wouldn't treat a child with HIV or AIDS any differently from the rest of the students in the class. This study underscored a continued need for HIV/AIDS education for educators, and the development of the preservice HIV/AIDS curricular guidelines.

Attitudes towards HIV/AIDS have been studied in a number of populations. These studies have revealed mostly negative attitudes towards those who are HIV positive or dealing with the AIDS disease. Researchers have found that the mode of the HIV virus transmission seems to affect the comfort level of the service provider in dealing with the HIV infected individual. Behavior change is an important key to turning back the pandemic. But behavior change involves much more than avoiding risky sexual behaviors, as it is about attitude towards the virus, and its
opportunistic infections, behavior, and stigma. HIV/AIDS attitudes are about how an individual reacts to the realities and consequences of the pandemic. Educational leaders have to remain at the forefront of addressing the epidemic in Namibia.

The Role of School Principals in Addressing HIV/AIDS

A school principal's role is broad and dependent on many factors. Communities all over the world are undergoing changes. At the center of some of the changes is education. The importance of education as a transformative force in social and economic terms is clear. Schools are transforming in response to various pressures, including parent complaints about the quality of education (Walberg, 1984), labor markets demands for increasingly skilled labor force (Senge, 1994; Toffler, 1990), and rapid changes in technology for communities (Mehlinger, 1996).

Leadership provided by school administrators is so critical to school success (Hart & Bredeson, 1996). Abbott (1994) stated that school principals are expected to be renaissance principals owing to the wide range of duties and responsibilities they are expected to accomplish and master. Factors such as good curriculum, quality education, and a strong professional culture all help make schools
successful. However, researchers such as Fullan (2003) and DuFour and Eaker (1998) all agree that these changes are shaped and developed by good school administrators. Added to these changes and challenges school administrators have to address is the worldwide growing pandemic of HIV/AIDS.

The Namibian government, by launching a national policy for the education sector, has recognized that schools and their leadership can no longer react to the urgencies of society by focusing exclusively on academics. The changing needs of the community require that schools also address the general health of its students, and especially the impact of HIV/AIDS. Since the abolishment of apartheid in Namibia, quality education has been a priority for this new nation. Unfortunately, all the investment in quality education is being eroded with the advent of HIV/AIDS.

Schools are the one institution in Namibia regularly attended by most young people, and well situated to address the epidemic. According to Abt Associates (2002), 593,000 of all youth aged 5 to 19 years are enrolled in schools. Thus, schools are well positioned to improve academic achievement in addition to developing the kinds of characteristics in students that lead them to become
productive and responsible citizens. Schools have the greatest influence on the student’s life outside of the family, and therefore can play an essential role in cultivating the moral culture in their students needed to mitigate the HIV/AIDS epidemic of Namibia.

At the core of mitigating the pandemic in schools is teaching about health and teaching about positive non-high-risk-sexual behaviors to students. Health is like a silent partner to education (Novello, Degraw, & Kleinman, 1992). According to a 1994 joint publication by WHO and United Nations Educational, Scientific and Cultural Organization (UNESCO) good health supports successful learning, and successful learning supports good health. Health and education are inseparable. The health and well being of students are directly linked to their academic achievement. This relationship between health and education is reciprocal.

A study by Campbell and Lubben (2003) examined the provision of a health-promoting environment for HIV/AIDS education among senior secondary schools in Namibia. Of the 42 schools that participated in this study, one in six schools were found to have virtually no health promoting environment, whilst only three schools (7%) had put in
place comprehensive sets of measures to create the most positive health promoting environment. Most schools (75%) had no policy document for HIV/AIDS education or for health education. More than a quarter had no designated teacher responsible for HIV/AIDS education. However, almost all schools included HIV/AIDS education in life sciences at junior secondary level and in biology at senior secondary level. Three out of four schools included HIV/AIDS in life skills. A quarter of the schools had no extra-curricular HIV/AIDS education. Others had activities involving visiting speakers or after-school clubs. In about a quarter of the schools, learners shared their knowledge and attitudes with other community members, within or outside the school. In light of the high prevalence rate of HIV/AIDS in Namibia, this study concluded that a strong health-promoting school environment is a requirement to facilitate behavioral change through school-based HIV/AIDS education intervention, and educators have a critical role to play in achieving and creating a strong-health promoting school environment.

The concern of mitigating the epidemic should not only focus on students, but also on teachers and support staff. The education sector is the largest civil servant employer
in Namibia (Abt Associates, 2002). In 2001, 60% of the deaths registered in the teaching staff were AIDS-related. It is estimated that between 2002 and 2010, 3,360 teaching staff will have died, representing 20% of the total teaching work force. The decrease in the number of teaching staff will continue to have adverse effects on the education system as teachers continue to fall ill and eventually die.

HIV/AIDS is a serious health crisis-affecting people of all ages, adults, children and adolescents. By the end of 2003, nearly 30,000 of reported cases of HIV infection in Namibia involved children (UNAIDS, 2004). This number is believed to be conservative as the true number of cases is estimated to be higher than this. No longer can school administrators only be concerned with the academic success of their students. Students attend schools for years before they initiate sexual risk taking behaviors, the majority of students are enrolled at the time they initiate sexual intercourse. These facts raise the urgency of the matter and school administrators are urged to become active players in addressing the epidemic in their schools.

As the number of children and young people either infected with or affected by HIV/AIDS has increased, it is
believed that all professionals who work in schools will have direct or indirect contact with a student who is infected or affected by HIV/AIDS (Landau, Pryor, & Haefli, 1995). School administrators can help by lighting the fire in their school community that will allow their students and teachers talk openly and honestly about HIV/AIDS. School administrators should be at the forefront both of prevention efforts to reduce the risk of infection and intervention efforts to meet the needs of their students affected and infected by HIV/AIDS.

**HIV/AIDS School Policy**

Namibia is a relatively new country in the world and was the last colony in Africa. Namibia has been independent for less than 15 years now after close to 100 years of colonialization and oppression by the South African apartheid regime. During the first years of independence, the government of Namibia made heavy investments in health and education, and other sectors of development. Unfortunately, all these gains are threatened by the toll of HIV/AIDS. HIV/AIDS is a continuous critical public health issue in Namibia and it is now the leading cause of death in the country (MOHSS, 2001).
HIV/AIDS is one of the major challenges to all in Namibia. The HIV/AIDS crisis continues to expand in numbers and extent without immediate solutions in view. Namibia’s development depends to a large extent on the development of its human capital (MBESC 2003). With all the investment in that area, now Namibia’s human resources are being eroded by HIV/AIDS. And as a consequence, the government has developed policies for most of its sectors to guide its efforts in mitigating the epidemic.

Because the Ministry of Basic Education, Sport, and Culture and the Ministry of Higher Education, Training, and Employment Creation in Namibia acknowledge the seriousness of the HIV/AIDS epidemic, education has been identified as one of the means of contributing to Namibia’s socio-economic development (Abt Associates, 2002). The education sector’s policy on HIV/AIDS formalizes the rights and responsibilities of every one involved in the education sector with regards to HIV/AIDS, such as students, parents, guardians, educators, and the community at large (MBESC, 2003).

In Namibia, the school principal is held responsible for the translation of the policy into action, and to actively communicate and engage in dialogue with the
community about HIV-related school policies and procedures. Scholars such as Schwahn and Spady (1998) described the school principal as the prime person in each school to facilitate the development and enforcement of a sense of mission, and help create and maintain a positive climate conducive to learning. Principals must be strong-minded individuals, who can set the bar high for the rest of the school community. Most importantly, the school principals must light the fire in their entire school community to accept policies that can enhance student learning and excellence.

The Namibian policy clearly states that every student with HIV infection has the same right to attend school and receive services as any other student. HIV infection shall not be of any factor into decisions concerning either class assignments, or privileges in participation in any extracurricular activities of the school (MBESC, 2003). The policy also declares that teachers will always strive to maintain a respectful school climate, free of any type of verbal harassments, stigma and discrimination. The school principal's responsibility is to help translate this document into action. School principals must therefore
invite everyone on board and be willing to do their very best to realize the full implementation of the policy.

One of the challenges faced by HIV infected individuals is their wish of confidentiality to be respected (Brown, Macintyre, & Trujillo, 2003). The Namibian policy clearly stipulates that no one is required to disclose his or her HIV status to anyone in the education system (MBESC, 2003). HIV antibody testing is not required for any purpose of educational enrollment or participation. Once anyone's HIV status is known, it is the school administrator's and rest of the school community's responsibility to treat as highly confidential any knowledge or speculation concerning the HIV status of a student, a teacher, or a support staff of the school.

The evidence is overwhelming that the risk of transmitting HIV is extremely low in school settings (Brown & Fritz, 1988; Maswanya et al., 2000; UNAIDS, 1997) when the current universal precautions are followed. Even the presence of a student with the AIDS disease poses no significant risk to fellow students or educators in school. According to Reed (1988), school leadership is critical in determining how confidentiality issues of HIV positive learners will be dealt with in the school. In such instance
the school principal's responsibility is to have developed a communication tool that will keep hysterical reactions to a minimum once members of the school community learn of a student or teacher who is HIV positive in the school.

This policy in Namibia has been developed and provided as a mandate policy for all schools to implement in the wake of the growing national AIDS epidemic. As the epidemic continues to grow in Namibia, it is critical for those in leadership positions such as school administrators to have the knowledge on how best schools can respond to the needs of those already infected and those in danger of infection.

In the absence of a vaccine, it is clear that the implementation of effective control procedures following universal precautions in schools is critical for the well being of all students, teachers, and support staff. Furthermore, the leadership and commitment of school principals are important essentials for the success of a school AIDS policy and school-based AIDS education program. School policies for dealing with HIV/AIDS not only benefit those living with the virus, but the entire school community.
Stigma and Discrimination

Three decades into the HIV/AIDS pandemic, and fear of stigma and discrimination continue to be barriers to people seeking HIV testing, treatment, and care. Since the beginning of the pandemic, pervasive stigma has surrounded HIV/AIDS. Herek and Glunt (1988) described the public reaction to AIDS in the United States as an "epidemic of stigma." Thus, continuously educating people about the real risk of HIV transmission and developing messages that people with HIV/AIDS deserve respect as the rest of the community members can play an essential role in helping mitigate the impact of stigma and discrimination. According to Green (2003), stigma and discrimination discourage those who are infected with the virus or even those affected by HIV/AIDS from seeking needed services because seeking any type of service may reveal their status to their loved ones, work place colleagues, or community.

HIV-related stigma is increasingly recognized as the single greatest challenge to slowing the spread of the disease, (Rao Gupta, 2001) unfortunately undermining the public health efforts to combat the pandemic (WHO, 2003a). It is through stigma that community members often turn to blame those infected with the virus for being ill and
justify discriminatory acts against them while asserting the innocence and health of those who are stigmatized. The UNAIDS Executive Director, Peter Piot, addressing the 2000 World AIDS Conference in Durban, South Africa said the following about stigma and discrimination (UNAIDS, 2000):

...this park stands as a symbol of the discrimination that many people living with HIV/AIDS have to endure. Nothing illustrates the global impact of discrimination and intolerance better than the global AIDS epidemic, which has become one of the greatest tragedies and challenges of our time. HIV-related stigma and discrimination are immense barriers to effective responses to the epidemic. HIV stigma comes from the powerful combination of shame and fear. HIV is transmitted through sex and so is surrounded by taboo and moral judgment. But we do not need to be prisoners of shame and fear. The AIDS epidemic can be turned back, and to do so, we must defeat HIV-related stigma and discrimination. Giving in to HIV/AIDS by blaming others for transmitting HIV creates the ideal conditions for the virus to spread: denying there is a problem, forcing those at risk or already infected underground, and losing any opportunity for effective public education or treatment and care. Shame must be replaced with solidarity. People living with HIV are part of the solution, not part of the problem - they are the world's greatest untapped resource in responding to the epidemic. She may not be known to many of you but she was stoned to death for disclosing her status.

Stigma and discrimination are separate, but closely linked. These two concepts, according to Parker and Aggleton (2003), remain among the mostly poorly understood aspects of the HIV/AIDS pandemic. Stigma has been defined in various ways. Goffman (1963) argues that stigma is a
social process. He defines it as discrediting attribute and stigmatized individuals as those who possess undesirable attribute that are incongruous with our stereotype of what a given type of individuals should be. UNAIDS (2003) defined stigma as a multi-layered process of devaluation that tends to reinforce negative implications by associating HIV/AIDS with already marginalized and vulnerable groups. Stigma lies at the root of discriminating actions that exclude people who need AIDS-related services.

The consequence of stigma is discrimination. Discrimination occurs when a distinction is made against a person that result in his or her being treated unfairly and unjustly on the basis of their belonging, or being perceived to belong, to a particular group. The original meaning of the word was to note differences. Over time, however, it has come to mean to commit an unjust action or inaction against individuals who belong, or are perceived to belong to a stigmatized group. According the UNAIDS (1996) protocol on HIV/AIDS-related discrimination, discrimination is defined as "any measure entailing any arbitrary distinction among persons depending on their confirmed or suspected HIV serostatus or state of health."
Because of the stigma and discrimination, HIV/AIDS is a taboo topic in many parts of the world, including Namibia. People simply do not want to talk about it. Unfortunately, the stigma not only heightens the discrimination against those living positively with the virus and the disease, but also gets unintentionally spread by members of society who may not know their own seropositive status. Some people may opt not to be tested for the virus because they are afraid to know that they might have the virus.

Nyblade and Field (2000) conducted a study about stigma and discrimination in African countries of Ethiopia, Tanzania, and Zambia. They found that the strong stigma towards HIV positive people and fear of being discriminated against had negative consequences for those infected. Most particularly, fear of stigma and discrimination keep infected people from accessing voluntary counseling and testing programs. It also discouraged pregnant women from accessing programs that can possibly reduce mother-to-child transmission.

Research shows clear evidence (Alonzo & Reynolds 1995; Bentley et al., 1998; Goldin, 1994; UNAIDS, 2004) that from the beginning of the pandemic, this virus and disease has
been accompanied by an epidemic of fear, ignorance, and
denial which leads into stigmatization of and
discrimination against individuals with HIV/AIDS and their
family members.

Added to these factors is the powerful combination of
shame and fear that accompanies the pandemic. Shame because
the sex that transmits HIV is surrounded by taboo and moral
judgments for some and for others. Fear because AIDS is
still relatively new for some people and consider it to be
deadly in the absence of having access to antiretroviral
drugs (UNAIDS, 2003). The pandemic is closely connected
with sexual stigma because HIV is mainly transmitted
through sexual intercourse and it affects populations whose
sexual practices are deemed mostly different from the norm.

Though the epidemic in Namibia is predominately
heterosexual, it reinforces pre-existing sexual stigma
associated with sexually transmitted diseases (Gilmore &
Somerville, 1994), promiscuity (Alexander, 1988; Panos,
2001), prostitution (Alexander, 1988), and homosexuality
(Canadian AIDS Society, 1997; Hogg et al., 1994). Added to
shame and fear, is the language used to make reference to
HIV and AIDS. Some communities in Namibia have struggled to
find the appropriate translation of HIV/AIDS in their
native languages, because HIV and AIDS are new words to some languages of the world's communities. Because of lack of direct translation of sexually transmitted diseases, some tribal groups of Namibia refer to sexually transmitted diseases as *omikithi dho honi* as in Oshiwambo, and *omitjise vio ndova* as in Otjiherero. The direct translation of these words in both of these languages means diseases of shame and diseases of dirt respectively.

In Namibia religion has played, and continues to play a tremendously important role in the lives of many people. The belief that AIDS is punishment from God for immoral behavior is not uncommon. Another factor which fuels stigma and discrimination is an overarching belief held by some people that people infected with HIV, are infected as a punishment from God (Appleby, 1995; Owens, 1995; Wilkerson, 1994) because of uncommon and sinful behaviors. Those behaviors are deemed morally wrong and unacceptable. A study of African-American women from an urban area conducted by Flaskerud and Rush (1989) revealed that two-thirds of the participants believed that AIDS is a fulfillment of prophecy regarding plagues from the Book of Revelations.
The church is often accused of perpetuating the stigma of HIV/AIDS by associating the disease with sin. The World Council of Churches took a stand against stigma and discrimination by seeing it as being perpetuated among their church community. The World Council of Churches Central Committee at its meeting in 1987 commissioned a comprehensive study by a Consultative Group on AIDS. In its reflection the group produced a statement that stated:

The AIDS crisis challenges us profoundly to be the church in deed and in truth and to be the Church as a healing community...through their silence, many churches share responsibility for the fear that has swept our world more quickly than the virus itself. Sometime churches have hampered the spread of accurate information, or created barriers to open discussion and understanding. (p. 133)

At the Bangkok HIV/AIDS Conference, Dr. Desmond Tutu of South Africa in an interview with Judith Melby of Christian Aid said the following in regards to stigma and discrimination associated with the pandemic:

Let us, as a church, speak out and speak up. HIV/AIDS is not God's punishment for sin. You have got to say that quite firmly and categorically. How can it be said that a baby who has AIDS through mother-to-child transmission is being punished for sin? If it is a God who is punishing them, then that God is one I would not worship. Silence kills. Stigma kills. We should not want to treat those living with HIV as the modern equivalent of the biblical leper who had to carry a bell and a sign saying, 'I am unclean'. They are not unclean. We should embrace them physically and
emotionally as members of our community. The church should speak out very firmly against stigmatization...We, the church, should be at the forefront of this. We follow a master who was always on the side of those who were having a hard time. So we have got to be where Jesus is. (Melby, 2004)

Though all infected and affected people do feel the effects of stigma and discrimination, women and children are the two groups mostly affected by stigma and discrimination (UNAIDS, 2004). Children who are infected with the virus or affected by having a parent die from the disease have been stigmatized and discriminated against in educational settings (World Bank, 2002). According to the Human Rights Watch (2004) stigma has led to teasing by classmates towards children associated with HIV/AIDS.

According to the UNAIDS (2004) recently released report, women are disproportionately more frequently infected than men by the virus around the world, as women now account for half of all the world’s HIV/AIDS cases. Unfortunately, traditional attitudes towards women around the world help nourish stigma. Gender inequality in many countries, facilitates the way society perceives HIV positive women and girls, who often are the main caretakers in the family as in the case of Namibia, despite being ill themselves. The lack of education for women on average
contributes to many women getting infected, as they mostly lack negotiating skills and accurate scientific knowledge that will protect them from the virus. Women are more stigmatized than men and tend to experience more pain and suffering than their male counterparts. In addition, negative traditional attitudes, biological differences between men and women create additional social and cultural responsibilities and consequences for women who are living positively.

A pilot study conducted in four countries of Burkina Faso, India, Ukraine and Zambia by Panos (2001) in partnership with the United Nations International Children’s Emergency Fund (UNICEF), revealed that pregnant women who are HIV positive suffer multiple layers of stigma. A woman, who is pregnant and is HIV positive, is in a position that devalues her in her community. The study reveals that also the usage of the term mother-to-child transmission ignites negative reactions since it implies that women bear the blame for infecting the child.

A study by Herek, Capitanio, and Widaman (2002) compared findings from three national telephone surveys in the United States conducted in 1991, 1997, and 1999. Representative samples totaling more than 2,500 American
adults were asked their opinions about people with AIDS and various AIDS policies. The researchers found a 40% increase between 1991 and 1997 in the number of Americans believing that people who acquired AIDS through sex or drug-use deserve their illness. While 20% expressed this view in 1991, 28% did so in 1997. By 1999, the figure had declined to 25%, but was still higher than at the beginning of the decade.

One of the many earlier studies to explore this phenomenon was conducted by Kelly et al. (1987). In this study, Kelly and colleagues examined the stigmatization of AIDS patients living a gay lifestyle by physicians in three major cities across the United States. The study found that there was reluctance on the part of the medical doctors to interact with AIDS patients, even casual non-risky contact. The patient with AIDS was considered somewhat responsible and deserving of their infection with the virus, and less deserving of any kind of sympathy.

There is compelling literature that suggests that perceived stigma and discrimination can be problematic for people who are infected and for families that are affected with HIV/AIDS, but there is also evidence that stigma is not inevitable. One of the major solutions identified in
combating stigma and discrimination is education. Stigma can be reduced by a pattern of frequent positive and ordinary interactions between those stigmatized and those who do not possess the traits of stigma (Green 2003).

Education will continue to be a key component in any strategy to reduce or prevent stigma and discrimination against people with HIV/AIDS and populations affected by HIV/AIDS. School administrators have a central role to play in attempting to change the direction of stigma early in a child’s life and to help them understand its full impact across one’s lifespan. Schools are key settings for educating children about stigma and discrimination and for working towards halting its continuous pervasiveness in schools and communities.

The Need for HIV/AIDS Education

Though educators work with children of all ages, the age group among school-going children that is cause of concern is mostly adolescents. Adolescence is a time of tremendous opportunity and change (Erickson, 1963; Rice, 1999; Santrock, 1998). It is also a time of heightened vulnerabilities. Young people are especially vulnerable to HIV and other sexually transmitted diseases. According to UNAIDS (2004) half of all new HIV infections happen among
15 to 24 year olds. A number of these children get infected before they even finish high school. That is why HIV/AIDS education is the key element in both the prevention and management of new infections cases.

Many young people who become sexually active do so without having accurate information about reproductive health. This lack of information can put many of them at risk for contracting sexually transmitted disease, and ending up with unwanted and unplanned pregnancies. Sexual health education can be one measure of contributing to young people preventing these problems and improving their future reproductive health.

Researchers such as Kirby (1995), Barnett (1997), and Ridini (1998) have shown that sex education can help delay first intercourse for young people who are not sexually active. In the absence of greater communication between parents and children about issues of sexuality (Shikwambi, 1999), the school is the logical place for this education, as schools have the potential to reach a larger number of young people and it is in schools where prevention education for things such as drugs often takes place. And now sex education can be added to the list.
According to the international instruments of the United Nations such as the Universal Declaration of Human Rights (UN, 1948), the Declaration on the Convention of Rights of the Child (UN, 1989), and the Declaration of Commitment on HIV/AIDS (UN, 2001), sex education is a right for young people and they need to be armed with accurate information about their own reproductive health. The UN defined sex education as the process of acquiring information and forming attitudes and beliefs about sex, sexual identity, relationships and intimacy. Sex education helps to empower young people to make informed decisions and to avoid engaging in risky behavior.

HIV/AIDS Education in Rural Areas

Studies in the United States have reported that rural schools frequently view HIV/AIDS as an urban homosexual problem and are least likely to offer HIV/AIDS education to their students (Helge, 1991). But rural teenagers are as sexually active as their urban peers (Brabin et al., 1995; Buga, Amoko, & Ncayiyana, 1996). Rural students are vulnerable to many of the same factors associated with adolescents' contracting the HIV virus. These factors include poverty, dysfunctional families, isolation, alcoholism, lack of parental support, and high schools drop
out, school adjustment problems, lack of economic opportunities, and lack of successful role models. All of these factors contribute to low self-esteem, which usually can lead rural adolescences to become sexually active and take part in high-risk sexual activities (Helge & Paulk, 1991; Ray & Murty, 1990).

According to the Namibia 2001 Population and Housing Census, of the 1.8 million Namibians, 67% of the population lives in rural areas of the country (National Planning Commission [NPC], 2002). In a country as vast as Namibia, schools in rural areas are rarely able to glimpse the world beyond their remote and isolated villages. In part, the lack of access to technology and information causes rural schools to lag behind the achievement levels of their urban counterparts. The complete distances of these schools from urban centers also pose a challenge for teacher recruitment. More critically, the HIV/AIDS crisis is drying up the pool of trained teachers in the country, further intensifying the need for appropriate, and pertinent tools that will help meet the needs of rural schools.

A study commissioned by the Food and Agriculture Organization (2003) examined the impact of HIV/AIDS on the agricultural production and food security in Namibia. The
study was aimed at gathering information and data that would improve the knowledge and understanding of HIV/AIDS' impacts on rural households and communities in Namibia. This was achieved through a desk review of the existing relevant literature and through qualitative and quantitative surveys of selected sample communities from the country's Ohangwena region. Both of these surveys focused in particular on gender and youth issues and used an interdisciplinary approach to define precisely how the impacts of the HIV/AIDS pandemic contribute to poverty. Among other impacts, rural households that have experienced HIV/AIDS-related illness and death have lost time and labor availability, agricultural knowledge and skills, land and property, and funds for improving production. At the same time, their dependency burden has increased. In some cases, the loss of adult labor has forced families to withdraw older children from school to care for younger siblings and help in food production. The resulting decrease in education levels will continue to perpetuate the cycle of poverty across generations.

Rural communities with traditional value systems usually resist sex education, which are closed to HIV/AIDS education. Even schools that do provide sex education or
HIV/AIDS education lack appropriate curriculum, resources, and qualified educators to secure effective programs. Although 80% of rural schools in the United States of America stated that their schools provide some form of mandated HIV/AIDS education, 90% of these programs permit parents to excuse their children from HIV/AIDS education (Helge & Paulk, 1991), and 59% of these programs took place in one day or less (Helge, 1991).

A national survey showed that a lower proportion of rural students were found to correctly answer 8 of 17 HIV/AIDS knowledge related questions than those from other areas, although 68% of these rural students reported having received school-based HIV/AIDS education (DuRant, Ashworth, Newman, & Gaillard, 1992). These findings indicate that many of rural teens lacked adequate information about HIV/AIDS and HIV/AIDS education in rural schools usually is too little, and/or too late. To help rural teens protect themselves from HIV infection, there is a need to provide rural-oriented HIV/AIDS education.
CHAPTER III
METHODOLOGY

The Purpose of the Study

For this study, qualitative and quantitative research methods were combined to measure Namibian school principals' knowledge of HIV/AIDS, attitudes towards HIV/AIDS, and their compliance with the National Policy on HIV/AIDS for the Education Sector of the Republic of Namibia (Appendix A). School principals in elementary, junior high, combined, and senior high schools throughout Namibia were asked to participate in the study.

The Research Questions

The basic research questions of this study are as follows:

(1a). What is the level of knowledge about HIV/AIDS among Namibian school principals?

(1b). Are there any significant differences in knowledge of HIV/AIDS according to demographic variables among Namibian school principals?

(2a). What is the level of attitude towards HIV/AIDS among Namibian school principals?
(2b). Are there any significant differences in attitudes of HIV/AIDS according to demographic variables among Namibian school principals?

(3). What is the relationship between knowledge level and attitude level of Namibian school principals?

(4a). To what extent are Namibian school principals aware of the national policy on HIV/AIDS?

(4b). To what extent have Namibian school principals implemented the national policy on HIV/AIDS?

The Model of the Study

For this descriptive study, qualitative and quantitative methods were combined in order to find out what school principals' knowledge and attitudes are about HIV/AIDS, as well as to obtain a comprehensive detailed process school principals went through in the implementation process of the national policy.

The first part of the study utilized a paper and pencil questionnaire, which asked principals various questions focused on their knowledge and attitudes towards HIV/AIDS. The second part of the survey instrument, which was also a paper and pencil questionnaire, asked school principals whether they are aware of the national policy and the implementation process of the policy under-taken in
their schools. Responses to the second part of the questionnaire lead the researcher into the qualitative part of the study.

The last part of the research methodology that employed a qualitative method was utilized in semi-structured interviews that allowed school principals to share their understanding and implementation process of the national policy on HIV/AIDS.

**Participants**

The study was conducted with school principals throughout Namibia. A systematic strategy was used to select participants for the study from an address list of all schools in Namibia. The address list of the Namibian schools was obtained from the offices of the Ministry of Basic Education, Sport, and Culture. The list obtained categorized the schools according to the 13 educational regions of the Ministry, thus allowing all schools in Namibia to have the same chance of being selected to participate. Even school principals who work in private schools, such as church affiliated or alternative schools, were given an equal opportunity to be part of the selected sample.
Out of the total Namibia schools of 1,584, a total of 350 school principals were invited to complete the questionnaire. The sample was recruited from the school address list of the Ministry of Basic Education, Sport, and Culture. A systematic sampling technique, which involved choosing the $n$th school from the list of the addresses, was used. In this study, the $n$th school was the 5th school on the address list of the Ministry of Basic Education, Sport, and Culture, which generated 350 prospective participants. The systematic sampling technique was used to give every school in each educational region an opportunity for proportional representation.

For the qualitative section of the study, another sample of 7 principals was selected from a total of 94 principals who indicated their willingness and availability for the face-to-face interviews. Purposeful sampling was used to select the sample of the 7 principals. According to researchers Merriam (2001) and Patton, (1990), purposeful sampling is used in research to make certain, and gain insight from a specific group of people who will be able to provide rich information and from whom the most can be learned.
The Survey Instrument

A modified version of the *HIV/AIDS Knowledge and Attitudes Scales for Teachers* developed by Koch and Singer (1998) was used to collect the data in this study (Appendix B). The HIV/AIDS Knowledge and Attitudes Scales for Teachers was developed to serve as a modular measurement instrument in determine teachers' level of knowledge and attitudes towards HIV/AIDS in general, and on specific educational issues related to the virus and the disease. This instrument was originally constructed by adapting items and format from the National Health Interview Survey (Hardy, 1989), the Nurses' Attitudes About AIDS Scale (Preston, Young, Koch, & Porti, 1995), and an instrument used for preservice elementary education teachers (Ballard, White, & Glascoff, 1990).

The questionnaire included three parts to measure Namibian school principals HIV/AIDS knowledge, attitudes towards HIV/AIDS, and their compliance with the national policy on HIV/AIDS for the education sector. The qualitative part of the study was semi-structured questions designed by the researcher specifically for this study to investigate the compliance of the schools in Namibia with the Ministry's national policy.
For this study, there were few linguistic differences in the original instrument that called into question the applicability of the original instrument for the Namibian audience. With permission granted by the first author of the original scale, some necessary changes were made to the original questionnaire to accommodate both the language ability of the participants and the norms of their community. The differences between the original questionnaire and the revised questionnaire are presented in the Modification of the Survey Instrument section.

The first section of the questionnaire focused on the knowledge segment of the scale, which is divided into two parts. The first part dealt with general knowledge questions relating to HIV/AIDS. This component contained 18 questions regarding HIV/AIDS development such as cause, symptoms, diagnosis, effects, treatment, and items related to HIV/AIDS issues in classroom settings. Respondents can respond (1) true, (2) false, or (3) not sure, to these statements based on their understanding of HIV/AIDS.

The other section of the knowledge part dealt with questions that asked knowledge about the likelihood of transmission. This section contained 17 questions about possible modes of the virus transmission. Respondents were
requested to indicate their level of knowledge to each of the statements using a 6-point Likert-type scale reading: (1) very likely, (2) somewhat likely, (3) somewhat unlikely, (4) very unlikely, (5) definitely not possible, or (6) don’t know. The total sum of the two sections contained a total of 35-item questions that examined the knowledge of HIV/AIDS.

The second section of the questionnaire focused on the attitudes of school principals towards HIV/AIDS. This section contained 25 questions that were used to assess the participants’ feelings about HIV/AIDS, about individuals living with HIV or AIDS, and educational-related issues. Participants were requested to indicate their level of agreement to each of the statements on a 5-point Likert-type scale reading: (1) strongly agree, (2) agree, (3) uncertain, (4) disagree, or (5) strongly disagree.

The third section of the survey instrument had a total of 10 questions that were focused on the national policy on HIV/AIDS for the education sector of Namibia. Subjects responded (1) yes or (2) no, to statements based on the implementation process employed in their respective schools and their knowledge about the Ministry’s national policy on HIV/AIDS.
The last section of the survey instrument contained a personal demographic sheet that related to gender, age, highest academic qualification, racial and/or ethnic background, years as a principal, grade level of school, regional location of school, type of the community where the school is located, and whether the school is alternative, government, or church-affiliated.

The racial and/or ethnic section of the questionnaire asked participants to identify themselves as black, white, colored, or other. While in the United States of America the word colored is used inter-changeable with the word black, in Namibia and South Africa it's a legitimate word used for people of mixed-race primarily who are descendants from the earliest settlers and the indigenous peoples.

To check reliability and validity of the original instrument a panel of three experts in the area of HIV/AIDS disease and education reviewed the items and answers for relevancy and accuracy (Koch & Singer, 1998). To establish reliability of the instrument the psychometric properties of the instrument were as follows: test-retest reliability was run and established for the knowledge scale, \( r = .87 \) and for the attitudes scale, \( r = .89 \). Internal consistencies for the general knowledge section were K-R 20
= .78; the likelihood of transmission for the rest of the knowledge section was K-R 20 = .88. The overall reliability for the entire scale was K-R 20 = .89. Cronbach’s alpha coefficient established reliability at α = .89.

Modification of the Survey Instrument

A modified version of the HIV/AIDS Knowledge and Attitudes Scales for Teachers developed by Koch and Singer (1998) was used to collect the data in this project. The instrument was originally developed to determine teachers’ level of knowledge and attitudes towards HIV/AIDS (Koch & Singer, 1998). With permission obtained from the first author of the scale, certain words in a total of 10 questions were omitted, added, or changed to the original version of the instrument (Appendix C). Below are the 10 questions that have been modified to meet the applicability of the Namibian audience.

1a. (Original): Less than one-half of the states have mandated that AIDS education be included in the school’s curricula.

1b. (Revised): The Ministry of Basic Education has mandated that AIDS education be included in the school’s curricula.

2a. (Original): There is a federal law that protects children with HIV or AIDS from educational discrimination.
2b. (Revised): There is a law that protects children with HIV or AIDS from educational discrimination.

3a. (Original): Civil rights laws should be enacted/enforced to protect people with AIDS from job and housing discrimination.

3b. (Revised): Laws should be enacted/enforced to protect people with AIDS from job and housing discrimination.

4a. (Original): Male homosexuality is obscene and vulgar.

4b. (Revised): Homosexuality is the leading source of HIV/AIDS epidemic in our country.

5a. (Original): I feel that more time should be spend teaching future teachers about HIV/AIDS in the college courses.

5b. (Revised): I feel that more time should be spend teaching future teachers about HIV/AIDS in the university/college courses.

6a. (Original): I feel disgusted when I consider the state of sinfulness of male homosexuality.

6b. (Revised): Heterosexuality is the leading source of the HIV/AIDS epidemic in our country.

7a. (Original): People should not blame the homosexual community for the spread of AIDS in the U.S.

7b. (Revised): People should not blame the homosexual community for the spread of AIDS in our country.

8a. (Original): I believe it is the regular elementary classroom teacher's responsibility to teach AIDS education.

8b. (Revised): I believe it is the elementary classroom teacher's responsibility to teach AIDS education.

9a. (Original): I would support including AIDS education in the curriculum in a school where I was teaching.
9b. (Revised): I would support including AIDS education in the curriculum in a school where I am the principal.

10a. (Original): It scares me to think that I may have a student with HIV or AIDS in my classroom.

10b. (Revised): It scares me to think that I may have a student with HIV or AIDS in my school.

Interview and Interview Protocol

To validate the information received from the questionnaire, participants were asked to indicate whether they were willing to sit down to a face-to-face in-depth interview with the researcher about different educational issues related to the national policy on HIV/AIDS of the education sector in Namibia. A total of 94 participants responded that they were available for the interview and of the available total, 7 were selected for the interview.

Participants in this study were purposefully selected in accordance with the methods of naturalistic inquiry. Qualitative research in this case requires "purposefully selecting participants that can provide the best answers to phenomena being explored" (Creswell, 1994, p. 148). School principals in this study were selected based on a criteria that each was in a principal position during the period the study was conducted, and each was voluntarily participating in the study.
To guide a representative sample, the following criteria were kept in mind by the researcher, such as gender, racial and/or ethnic background, geographic location, and whether the executing plan for the policy was developed and implemented in their school. The information gathered from the face-to-face interviews provided data about the national policy on HIV/AIDS' implementation process undertaken by different schools across Namibia.

The interview questions were semi-structured, open-ended, and aligned with the national policy on HIV/AIDS so as to allow other questions to emerge during interviewing and additional ideas to be explored. Researchers such as Gubrium, (1988), Glesne and Peshkin, (1992), and Dey, (1993) all agree that interviews that allow the development of the questions in addition to the already established ones are preferred in qualitative inquiry because it can lead to in-depth descriptions of the subject matter.

An interview protocol was followed (Appendix D). Participants were assured total anonymity in the final reporting of the findings for the dissertation. The participating school principals in the qualitative part of the questionnaire were provided with a letter explaining the process of the interview and were asked to sign the
permission letter before the interview was started. Also, permission to be tape-recorded was obtained. To insure total confidentiality for the school principals being interviewed, no names or the name of the school will be used in the final report, rather identification categories such as numbers allocated in order of interview, gender, race and/or ethnicity will be used.

Assurance was given to the participants that the researcher will be the only one to hear the interview tapes, and that they will be kept secure in a safe place during the process of completing the dissertation. Once the final work of the dissertation has been approved and filed with the graduate college, the researcher will then destroy the tapes. Each interview took approximately 45 minutes to an hour and was conducted in the principal’s school.

Data Collection

The data collection for the study started with permission obtained from the University of Northern Iowa Human Subjects Review Board (Appendix E) and from the office of the Permanent Secretary of the Ministry of Basic Education, Sport, and Culture in Namibia (Appendix F).

Once the permission documents were obtained, 350 questionnaires were mailed out to school principals across
Namibia. Participating principals responded to a paper-pencil questionnaire and mailed it back to the researcher using a self-addressed postage-paid envelope. With the survey instrument, a cover letter was included describing the purpose of the study, assuring them their confidentiality, and that the study was voluntary.

A letter from the office of the Permanent Secretary (Appendix G) accompanied the questionnaire package to encourage school principals to see the importance of the study. The letter also emphasized that the possible results may yield benefit to the educational sector in Namibia and throughout Africa, and especially to nations dealing with HIV/AIDS.

Data Analysis

Of the original 350 questionnaires mailed to school principals throughout Namibia, 143 were completed and returned. Each returned survey was coded with a questionnaire number to facilitate entry into the computer, where the Statistical Package for Social Sciences (SPSS) Version 11 for Windows was used for statistical analysis.

The SPSS program was used to compute descriptive statistics for correlation-efficiency and for testing linear associations between knowledge and attitudes as
reported by the participants. Frequency distributions were calculated for demographic variables such as gender, age, years as principals, type of school and racial and ethnic background. The means and standard deviations were computed. Responses to items in the knowledge and attitudes towards HIV and AIDS test were calculated and presented in frequency distributions.

In the instrument, Questions 1 to 35 were concerned with the knowledge scale and were divided into two subscales. Questions 1 to 18 comprised Subscale 1 and focused on general knowledge of HIV/AIDS including causes, symptoms, diagnosis, effects, and treatment. Questions 19 to 35 make up Subscale 2 and focused on the likelihood of transmission of the virus. The range of scores was 1 to 35, with 35 being the highest possible score. One point is given for every correct answer on the general knowledge subscale with the highest possible score being 18, and the highest possible score for the likelihood of transmission subscale being 17 points.

There are definite correct responses to the knowledge section of the questionnaire. Correct answers are as follows: definitely true for Questions 3, 4, 6, 7, 9, 11, 15, 17, 18, and definitely false for Questions 1, 2, 5, 8,
10, 12, 13, and 16. All unsure answers are considered as incorrect. The questions that focused on the likelihood of transmission had correct answers as follows: very likely for Questions 20, 29, 34; very unlikely for Questions 21, 23, 31, 33, 35; and definitely not possible for Questions 19, 22, 24, 25, 26, and 28.

In the instrument, Questions 36 to 60 were concerned with the attitudes scale. The sum of the scores on this part range between 25 for most unsupportive attitudes to 125 for most supportive attitudes.

Questions 61 to 70 focused on the qualitative part of the study. These questions explored the knowledge school principals have about the national policy on HIV/AIDS for the Namibian education sector. An in-depth recorded interview followed the collection of the survey with a selected group of school principals. The interview recordings were transcribed and analyzed. The data were analyzed using the constant comparative method, where data from interviews and note taking was compared. The next level of analysis was to identify similar information that appeared in the responses to each question asked. Finally, emerging themes were identified that were rooted in the transcript information. According to Glesne and Peshkin
(1992) the pre-established interview questions are developed to fit the topic so that the answers would explain the observable fact of the investigation. Besides the content from the interview transcripts, the researcher kept detailed written notes during the interviews. These field-notes included a written description of what the researcher heard, saw, and thought during the process of collecting the data. To the researcher, it was important to keep a detailed field-notes diary, because nonverbal elements in the interview process are significant as they communicate attitudes according to D. D. Flemmer, M. Flemmer, Sobelman, and Astrom (1996).
CHAPTER IV
RESULTS AND DISCUSSIONS

Introduction

The purpose of this study was to investigate Namibian school principals’ knowledge about HIV/AIDS and attitudes towards HIV/AIDS. The study also examined how and to what extent school principals have implemented the national policy on HIV/AIDS for the education sector in their schools as mandated by the Ministry of Basic Education, Sport and Culture in Namibia. The findings of the study are reported in this chapter and will be organized in four main sections: participants, knowledge level about HIV/AIDS, attitudes level towards HIV/AIDS, and the implementation process of the national policy.

Participants

The sample for this study was limited to participants who currently serve as school principals in Namibia. Of the 350 questionnaires distributed to school principals across Namibia in a one-time mailing, 143 were returned, giving an overall response rate of 41%. The final section of the questionnaire consisted of a personal demographic information sheet. School principals were asked to provide information on the following variable: gender, age, highest
educational qualification achieved, racial and/or ethnic identity, number of years as principal, grade level of the school, affiliation of school, regional location of the school, and the type of community the school is located in. A summary of the demographic data is presented in Tables 1 to 7.

The data showed that there were more male (63.6%) than female participants (36.4%) of the total sample. The participants range in age from 25 to 65. The majority ranged in age from 46 to 55 (46.2%), followed by 36 to 45 years of age, who made up 39.9% of the sample. Principals between the 56 to 65 years of age made up 8.4% of the total sample. Principals in the 25 to 35 years bracket were the smallest group, making up 5.6% of the sample. These data are presented in Table 1.

The grade level of the school that the school principals worked in is reported next. The results showed that 31.5% of the respondents were primary high (middle-school) school principals, which can have grades between one and seven grade. The rest of the data are reported in Table 2.
Table 1

**Frequency Distribution of Gender and Age**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>91</td>
<td>63.6</td>
</tr>
<tr>
<td>Female</td>
<td>52</td>
<td>36.4</td>
</tr>
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<td><strong>Total</strong></td>
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<td>100</td>
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<tr>
<td><strong>Age</strong></td>
<td></td>
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<tr>
<td>25-35</td>
<td>8</td>
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<tr>
<td>36-45</td>
<td>57</td>
<td>39.9</td>
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<td>46-55</td>
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<tr>
<td>56-65</td>
<td>12</td>
<td>8.4</td>
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<tr>
<td><strong>Total</strong></td>
<td>143</td>
<td>100</td>
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</tbody>
</table>

Table 2

**Frequency Distribution of Grade Levels of School**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency</th>
<th>Percent</th>
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<tbody>
<tr>
<td><strong>Grade Level</strong></td>
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</tr>
<tr>
<td>Elementary</td>
<td>25</td>
<td>17.5</td>
</tr>
<tr>
<td>Primary High</td>
<td>45</td>
<td>31.5</td>
</tr>
<tr>
<td>Secondary</td>
<td>36</td>
<td>25.2</td>
</tr>
<tr>
<td>Combined</td>
<td>37</td>
<td>25.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>143</td>
<td>100</td>
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</tbody>
</table>

Most of the participants (47.6%) had less than six years of principalship experience. Of the total participants, only 5.6% had been in the principal position 20-years or more. Data are reported in Table 3.
Table 3

<table>
<thead>
<tr>
<th>Frequency Distribution of Years as Principal</th>
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<tbody>
<tr>
<td>Characteristic</td>
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<tr>
<td>Years as Principal</td>
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<tr>
<td>1-5</td>
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<td>6-10</td>
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<td>11-15</td>
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<td>16-20</td>
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<tr>
<td>21-Over</td>
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<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Participants were also asked to indicate the educational region in which their schools were located. An educational region in Namibia correlates to the country’s political regions. The highest number of participating school principals in the study were from the Khomas region (29.4%). Khomas region has the highest population of any region in Namibia. The capital city, Windhoek, is located in the Khomas region. The lowest number of participants (2.1%) was from the Kunene region, which is one of Namibia’s rural regions. The rest of the data are presented in Table 4.
Table 4

**Frequency Distribution According to Educational Regions**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency</th>
<th>Percent</th>
<th>POP*</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Region</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caprivi</td>
<td>6</td>
<td>4.2</td>
<td>79,852</td>
<td>4.4</td>
</tr>
<tr>
<td>Erongo</td>
<td>12</td>
<td>8.4</td>
<td>107,629</td>
<td>5.9</td>
</tr>
<tr>
<td>Hardap</td>
<td>7</td>
<td>4.9</td>
<td>67,998</td>
<td>3.7</td>
</tr>
<tr>
<td>Karas</td>
<td>6</td>
<td>4.2</td>
<td>69,677</td>
<td>3.8</td>
</tr>
<tr>
<td>Kavango</td>
<td>9</td>
<td>6.3</td>
<td>201,093</td>
<td>11.0</td>
</tr>
<tr>
<td>Khomas</td>
<td>42</td>
<td>29.4</td>
<td>250,308</td>
<td>14.0</td>
</tr>
<tr>
<td>Kunene</td>
<td>3</td>
<td>2.1</td>
<td>68,224</td>
<td>3.8</td>
</tr>
<tr>
<td>Ohangwena</td>
<td>11</td>
<td>7.7</td>
<td>227,728</td>
<td>12.0</td>
</tr>
<tr>
<td>Omaheke</td>
<td>6</td>
<td>4.2</td>
<td>67,496</td>
<td>3.7</td>
</tr>
<tr>
<td>Omusati</td>
<td>20</td>
<td>14.0</td>
<td>228,364</td>
<td>13.0</td>
</tr>
<tr>
<td>Oshana</td>
<td>10</td>
<td>7.0</td>
<td>161,977</td>
<td>8.9</td>
</tr>
<tr>
<td>Oshikoto</td>
<td>6</td>
<td>4.2</td>
<td>160,788</td>
<td>8.8</td>
</tr>
<tr>
<td>Otjozondjupa</td>
<td>5</td>
<td>3.5</td>
<td>135,723</td>
<td>7.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>143</td>
<td>100</td>
<td>1,826,854</td>
<td>100</td>
</tr>
</tbody>
</table>

*Note.* *POP = population. From 2001 population data from census results, National Planning Commission Central Bureau of Statistics.

In Table 5, data summarizing the educational qualification level of school principals in this study are provided. This demographic data was important because Namibia has no principal licensure program. School principals in Namibia are appointed to principalship positions by the government of Namibia, and thus come to this position with various educational backgrounds. The majority of principals (*n = 81, 56.6%*) identified their qualification to be "other" on the questionnaire. This
"other" category indicates that the participants did not have a four-year baccalaureate or graduate degree. The participants in this category indicated having the Basic Education Teacher Diploma (BETD) qualification, or Higher Education Diploma (HED). Only one of the participants had a doctoral degree.

Table 5

<table>
<thead>
<tr>
<th>Frequency Distribution of Educational Qualification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristic</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Educational</td>
</tr>
<tr>
<td>BA/BS</td>
</tr>
<tr>
<td>MA/MS</td>
</tr>
<tr>
<td>Ed.D/Ph.D</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

The BETD qualification is conferred to teachers at the end of three years of study. There are four Colleges of Education in Namibia that confer to teachers BETD qualification. BETD is a unified general preparation program for all basic primary (elementary) and high primary education teachers. This program combines a common core foundation for all the teachers, and allows teacher trainees the opportunity to specialize in their chosen subject area and the grade level. The Faculty of Education
of the University of Namibia (UNAM) trains the secondary school teachers. It is a four-year program of study, and students earn a baccalaureate degree in education upon graduation.

Table 6 presents the race and/or ethnicity make up of the participants in this study. This demographic category was included because it was important to discover if the topic of discussion in this study is an issue that is receiving the attention of every Namibia school principal, regardless of his/her race or ethnic background. Of the 4.9% participants who identified themselves as “other,” none of them identified on the survey what their race/ethnicity identity.

Participants were given four race/identity categories to choose. The four choices were: white, black, colored and other. In Namibia, white is a broad term used to describe people of ethnic European descent, especially those with fair skin. In the United States of America, the term Caucasian is mostly preferred and used with much the same meaning. Black is a term used to identify a member of a racial group having brown to black skin, especially one of African origin, while colored is a term used to identify a person belonging to a racial group not categorized as
white. It is used to identify a population grouping made up of persons of mixed racial descent, especially as distinguished during the apartheid era from blacks or whites.

Table 6

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>24</td>
<td>16.8</td>
</tr>
<tr>
<td>Black</td>
<td>92</td>
<td>64.3</td>
</tr>
<tr>
<td>Colored</td>
<td>20</td>
<td>14.0</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>4.9</td>
</tr>
<tr>
<td>Total</td>
<td>143</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 7 shows that 88.1% of the participating schools in the study are public institutions that are affiliated with the Ministry of Basic Education, Sport, and Culture. Only four school principals identified their schools as private schools. This category included schools that are not church affiliated or are considered to be alternative schools.

Of the surveyed participants, 39.9% reported that their schools are located in rural areas across the country, while 45.5% are located in urban surroundings.
Table 7

Frequency Distribution of Institutional Affiliation and Location of the Participating School

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affiliation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government</td>
<td>126</td>
<td>88.1</td>
</tr>
<tr>
<td>Church</td>
<td>13</td>
<td>9.1</td>
</tr>
<tr>
<td>Private</td>
<td>4</td>
<td>2.8</td>
</tr>
<tr>
<td>Total</td>
<td>143</td>
<td>100</td>
</tr>
<tr>
<td>Location</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>65</td>
<td>45.5</td>
</tr>
<tr>
<td>Small Town</td>
<td>21</td>
<td>14.7</td>
</tr>
<tr>
<td>Rural</td>
<td>57</td>
<td>39.9</td>
</tr>
<tr>
<td>Total</td>
<td>143</td>
<td>100</td>
</tr>
</tbody>
</table>

The above were demographic data about the 143 school principals who participated in this study. The next section provides data on the participants' knowledge about HIV/AIDS and attitudes towards HIV/AIDS.

School Principals' Knowledge About HIV/AIDS

The first research question asked the level of knowledge about HIV/AIDS among Namibian school principals. The knowledge section of the questionnaire has 35 true-false questions, which were used to evaluate school principals' general knowledge (Subtest 1) and the likelihood of transmission (Subtest 2) about HIV/AIDS. The general knowledge subtest contained 18 questions that participants identify the statements as either: true, false, or not sure. One point was given for every correct
answer, and all unsure responses were considered incorrect. The likelihood of transmission subtest contained 17 questions that participants rated on a five-point Likert scale: very likely, somewhat likely, somewhat unlikely, very likely, and definitely not possible. As with the true-false questions in the general knowledge subtest, the likelihood of transmission questions had only one correct answer, which is either very likely or definitely not possible. Thus, the entire knowledge scale consisted of 35 questions. Scores on the knowledge scale can range from 0 (least knowledge out of 35 questions) to 35 (most knowledge out of 35 questions).

Analysis of Questions 1 to 18, which made up the general knowledge subtest for all participants indicates a mean score of 10.8 out of a possible score of 18, with a standard deviation of 3.09. Questions 19 to 35 were analyzed for the likelihood of transmission subtest and yielded a mean score of 4.27 out of a possible score of 17, with a standard deviation of 2.08. The distribution of the answers to each question of the HIV/AIDS general knowledge subtest and likelihood of transmission subtest are reported in Table 8 and Table 9 respectively.
Table 8

Distribution of School Principals' HIV/AIDS General Knowledge Subtest 1

<table>
<thead>
<tr>
<th>Question</th>
<th>No. correct</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIDS is an infectious disease caused by bacteria</td>
<td>95</td>
<td>66.4</td>
</tr>
<tr>
<td>AIDS breaks down the body's immunity by destroying the B cells in the endocrine system</td>
<td>16</td>
<td>11.2</td>
</tr>
<tr>
<td>AIDS can damage the brain</td>
<td>74</td>
<td>51.7</td>
</tr>
<tr>
<td>It may be more than 5 years before an HIV-infected person develops AIDS</td>
<td>111</td>
<td>77.6</td>
</tr>
<tr>
<td>HIV lives and functions in warm, moist environments for days outside of the body</td>
<td>113</td>
<td>79.0</td>
</tr>
<tr>
<td>Early symptoms of HIV infection include fatigue, fever, weight loss, and swelling of the lymph nodes</td>
<td>118</td>
<td>82.5</td>
</tr>
<tr>
<td>A person who has tested negatively on one HIV antibody blood test could still transmit HIV to a sexual partner</td>
<td>70</td>
<td>49.0</td>
</tr>
<tr>
<td>The number of HIV-infected person will be decreasing during the next two years</td>
<td>85</td>
<td>59.4</td>
</tr>
<tr>
<td>Two common disorders found in persons with AIDS are pneumocystis carinii pneumonia and Kaposi's sarcoma</td>
<td>49</td>
<td>34.3</td>
</tr>
<tr>
<td>Latex condoms are not as effective as &quot;lambskin&quot; or natural membrane condoms in preventing the spread of HIV</td>
<td>65</td>
<td>45.5</td>
</tr>
<tr>
<td>Drugs can be used to slow down the rate of reproduction of HIV and lengthen the life of an infected person</td>
<td>102</td>
<td>71.3</td>
</tr>
<tr>
<td>It is possible to detect HIV antibodies in the bloodstream immediately after becoming infected</td>
<td>96</td>
<td>67.1</td>
</tr>
<tr>
<td>There is a vaccine available in Europe that can protect a person from getting AIDS</td>
<td>99</td>
<td>69.2</td>
</tr>
</tbody>
</table>

(Table Continues)
There have been no cases of AIDS spread by students to their teachers or classmates through usual daily contact

In recent years, adolescents are among the groups with the largest increase of HIV infection

The Ministry of Basic Education has mandated that AIDS education be included in their schools' curricula

There is a law that protects children with HIV or AIDS from educational discrimination

There is no cure for AIDS at the present time

<table>
<thead>
<tr>
<th>Question</th>
<th>No. correct</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>There have been no cases of AIDS spread by students to their teachers or classmates through usual daily contact</td>
<td>82</td>
<td>57.3</td>
</tr>
<tr>
<td>In recent years, adolescents are among the groups with the largest increase of HIV infection</td>
<td>114</td>
<td>79.7</td>
</tr>
<tr>
<td>The Ministry of Basic Education has mandated that AIDS education be included in their schools' curricula</td>
<td>8</td>
<td>5.6</td>
</tr>
<tr>
<td>There is a law that protects children with HIV or AIDS from educational discrimination</td>
<td>112</td>
<td>78.3</td>
</tr>
<tr>
<td>There is no cure for AIDS at the present time</td>
<td>135</td>
<td>94.4</td>
</tr>
</tbody>
</table>

Table 9

**Distribution of School Principals' HIV/AIDS Likelihood of Transmission Subtest 2**

<table>
<thead>
<tr>
<th>Question</th>
<th>No. correct</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working near someone with AIDS</td>
<td>134</td>
<td>93.7</td>
</tr>
<tr>
<td>HIV-infected mother to baby during pregnancy/birth</td>
<td>14</td>
<td>9.8</td>
</tr>
<tr>
<td>Kissing someone who has AIDS</td>
<td>5</td>
<td>3.5</td>
</tr>
<tr>
<td>Eating in a restaurant where the cook has AIDS</td>
<td>25</td>
<td>17.5</td>
</tr>
<tr>
<td>Receiving a blood transfusion</td>
<td>31</td>
<td>21.7</td>
</tr>
<tr>
<td>Sharing plates, forks, or glasses with someone who has AIDS</td>
<td>8</td>
<td>5.6</td>
</tr>
<tr>
<td>Living with a person who has AIDS (without sexual involvement)</td>
<td>82</td>
<td>57.3</td>
</tr>
<tr>
<td>Donating blood</td>
<td>86</td>
<td>60.1</td>
</tr>
</tbody>
</table>

(Table Continues)
<table>
<thead>
<tr>
<th>Question</th>
<th>No. correct</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharing needles for drug use with someone who has AIDS</td>
<td>42</td>
<td>29.4</td>
</tr>
<tr>
<td>Mosquito bites</td>
<td>9</td>
<td>6.3</td>
</tr>
<tr>
<td>HIV-infected mother to baby through nursing</td>
<td>20</td>
<td>14.0</td>
</tr>
<tr>
<td>Receiving anal intercourse from an HIV-infected person without using a condom</td>
<td>53</td>
<td>37.1</td>
</tr>
<tr>
<td>Receiving anal intercourse from an HIV-infected person with using a condom</td>
<td>4</td>
<td>2.8</td>
</tr>
<tr>
<td>Having sexual intercourse with an HIV-infected person without using a condom</td>
<td>15</td>
<td>10.8</td>
</tr>
<tr>
<td>Having sexual intercourse with an HIV-infected person with using a condom</td>
<td>9</td>
<td>6.3</td>
</tr>
<tr>
<td>Performing oral sex on an HIV-infected man without using a condom</td>
<td>63</td>
<td>44.1</td>
</tr>
<tr>
<td>Performing oral sex on an HIV-infected woman using a dental dam</td>
<td>10</td>
<td>7.0</td>
</tr>
</tbody>
</table>

The range of correct responses about HIV/AIDS understanding was from 2.8% to 94.4%. The study revealed that the majority of the school principals have a low level of general knowledge information about HIV/AIDS, and a low level understanding of the likelihood of transmission of HIV/AIDS. A majority of the school principals (66.4%) think that AIDS is an infectious disease caused by bacteria. Only 33.6% of the participants know that AIDS is a viral disease. Less than half of the participants (49%) know that a person who tested negatively on one HIV antibody blood
test could still transmit HIV to a sexual partner if she/he is HIV positive.

Respondents lacked the scientific knowledge about the diseases associated with AIDS. Analysis revealed that 65.7% of the participants did not know that pneumocystis carinii pneumonia and Kaposi's sarcoma are two common disorders found in individuals with AIDS. An overwhelming majority (69.2%) of the participants believe that there is a vaccine available in Europe that can protect a person from getting AIDS.

On the likelihood of transmission subtest, only 9 (6.3%) of the participants know that mosquito bites are not a form of transmission, and 14 (9.8%) knew that it is possible for a pregnant mother to pass the HIV virus to her unborn child during pregnancy or birth. A majority of the (94.4%) participants believed it is possible that one can get the virus from sharing plates, forks, or glasses with someone who has AIDS. Only 8 (5.6%) participants said it is definitely not possible to get the virus by sharing kitchen utensils with someone who is HIV positive. The range of scores of the overall HIV/AIDS knowledge scale for Namibian school principals was 7 to 30. The mean score of the
knowledge scale was 15.06 and standard deviation was 3.69.

Data are reported in Table 10.

The second-half to the first research question investigated the significant differences in knowledge of HIV/AIDS according to demographic variables among Namibian school principals. To examine the existence of any significant difference using demographic variables, a one-way analysis of variance (ANOVA) was performed. Statistical
analysis was performed at the .05 alpha level with the following variables: gender, age, academic qualification, race/ethnicity, years in principalship, grade level of the school, type of the school as either private or public, location of the school, and the educational region of the school. Table 11 reports statistical analysis.

Table 11

Knowledge Statistical Analysis According to Demographic Variables

<table>
<thead>
<tr>
<th>Demographic Variable</th>
<th>F-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>$F(1,141) = .359, p = .550$</td>
</tr>
<tr>
<td>Age</td>
<td>$F(3,139) = 3.428, p &lt; .019$</td>
</tr>
<tr>
<td>Academic Qualifications</td>
<td>$F(3,139) = 3.680, p &lt; .014$</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td>$F(3,139) = 4.847, p &lt; .003$</td>
</tr>
<tr>
<td>Years as Principal</td>
<td>$F(4,138) = .981, p = .420$</td>
</tr>
<tr>
<td>School Grade Level</td>
<td>$F(3,139) = 2.649, p &lt; .051$</td>
</tr>
<tr>
<td>Affiliation of School</td>
<td>$F(2,140) = 4.816, p &lt; .009$</td>
</tr>
<tr>
<td>Location of School</td>
<td>$F(2,140) = 3.808, p &lt; .025$</td>
</tr>
<tr>
<td>Educational Region</td>
<td>$F(12,130) = 1.800, p &lt; .054$</td>
</tr>
</tbody>
</table>

The statistical analysis showed no significant difference between males and females' participants' overall
knowledge about HIV/AIDS based on gender $F(1,141) = .359, p = .550$. However, the results for the age variable revealed significant difference $F(3,139) = 3.428, p < .019$ in the overall knowledge scale. A post hoc analysis on age using Tukey test found significant difference between age groups. Scores for all age groups showed that the highest mean (16.87) for the knowledge scale was achieved by school principals in the 25 to 35 age category, while the lowest mean (12.66) for the knowledge scale was obtained by school principals in the 56 to 65 age category.

Statistical analysis for academic qualification of school principals on the knowledge scale showed significant difference on the overall knowledge scale at $F(3,139) = 3.680, p < .014$. Also, the results for the race/ethnicity category revealed statistical difference on the overall school principals HIV/AIDS knowledge scale at $F(3,139) = 4.847, p < .003$. There was no significant difference for the years of principalship on the total knowledge scale $F(4,138) = .981, p = .420$. Statistical analysis for the grade level of school indicated a significant difference $F(3,139) = 2.649, p < .051$ on the knowledge scale. A post hoc analysis was run and revealed that the elementary school principals showed the highest mean score of 16.36 on
the total knowledge scale, while the primary high school principals showed the lowest mean score of 14.13 on the overall knowledge questionnaire.

The analysis results for the type of school as either public or private revealed significant difference of $F(2,140) = 4.816, p < .009$ on the knowledge scale. The location of the school, whether it is located in an urban, rural, or small town indicated significant difference of $F(2,140) = 3.808, p < .025$ on the knowledge scale. Statistical analysis for the educational region of the schools was conducted. Results reached significant difference on the knowledge scale at $F(12,130) = 1.800, p < .054$. Post hoc analysis using Tukey test showed that those schools located in the Erongo educational region had the highest mean score of 18.41, while the school principals from the Oshana educational region had the lowest mean score of 12.80.

School Principals' Attitudes Towards HIV/AIDS

The second research question explored the level of attitude towards HIV/AIDS among Namibian school principals. The attitude scale of the questionnaire contained 25 questions. This section of the questionnaire was formatted in a five-point Likert-scale: strongly agree, agree,
uncertain, disagree, and strongly disagree. A mean score can be calculated with a mean of 1.00 representing the most unsupportive attitudes and a mean score of 5.00 representing the most supportive attitudes. Scores on the attitude scale can range from 25 (unsupportive attitudes) to 125 (most supportive attitudes). Scores ranged from 63 to 101 on the attitude scale. Overall score mean for the attitude scale was 80.86, with a standard deviation of 7.16. The results of the school principals’ attitude scale towards HIV/AIDS are reported in Table 12.

Table 12

<table>
<thead>
<tr>
<th>Questions</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>SD</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe I have enough information about HIV/AIDS to protect myself in my social life*</td>
<td>2.1%</td>
<td>6.3%</td>
<td>9.1%</td>
<td>33.6%</td>
<td>49.0%</td>
</tr>
<tr>
<td>(3)</td>
<td>(9)</td>
<td>(13)</td>
<td>(48)</td>
<td>(70)</td>
<td></td>
</tr>
<tr>
<td>I worry about possible casual contact with a person with AIDS</td>
<td>22.4%</td>
<td>28.7%</td>
<td>11.2%</td>
<td>25.9%</td>
<td>11.9%</td>
</tr>
<tr>
<td>(32)</td>
<td>(41)</td>
<td>(16)</td>
<td>(37)</td>
<td>(17)</td>
<td></td>
</tr>
<tr>
<td>Activities that spread HIV, such as some forms of sexual behavior, should be illegal</td>
<td>14.0%</td>
<td>20.3%</td>
<td>15.4%</td>
<td>22.4%</td>
<td>28.0%</td>
</tr>
<tr>
<td>(20)</td>
<td>(29)</td>
<td>(22)</td>
<td>(32)</td>
<td>(40)</td>
<td></td>
</tr>
<tr>
<td>I feel uncomfortable when coming in contact with gay men because of the risk that they may have AIDS</td>
<td>17.5%</td>
<td>36.4%</td>
<td>17.5%</td>
<td>16.8%</td>
<td>11.9%</td>
</tr>
<tr>
<td>(25)</td>
<td>(52)</td>
<td>(25)</td>
<td>(24)</td>
<td>(17)</td>
<td></td>
</tr>
</tbody>
</table>

(Table Continues)
<table>
<thead>
<tr>
<th>Questions</th>
<th>Percentage (Number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe I have enough information about HIV/AIDS to protect myself in my work setting*</td>
<td>2.1% (3) 8.4% (12) 9.8% (14) 38.5% (55) 41.3% (59)</td>
</tr>
<tr>
<td>Persons with AIDS are responsible for getting their illness</td>
<td>26.6% (38) 26.6% (38) 11.2% (16) 20.3% (29) 15.4% (22)</td>
</tr>
<tr>
<td>Laws should be enacted/enforced to protect people with AIDS from job and housing discrimination*</td>
<td>6.3% (9) 9.1% (13) 2.1% (3) 30.8% (44) 51.7% (74)</td>
</tr>
<tr>
<td>Homosexuality is the leading source of HIV/AIDS epidemic in our country</td>
<td>16.1% (23) 30.1% (43) 24.5% (35) 18.9% (27) 10.5% (15)</td>
</tr>
<tr>
<td>HIV antibody blood test results should be confidential to avoid discrimination against people with positive results*</td>
<td>5.6% (8) 12.6% (18) 8.4% (12) 33.6% (48) 39.9% (57)</td>
</tr>
<tr>
<td>I feel that more time should be spent teaching future teachers about HIV/AIDS in their university/college courses*</td>
<td>2.1% (3) 4.9% (7) 2.8% (4) 44.8% (64) 45.5% (65)</td>
</tr>
<tr>
<td>Heterosexuality is the leading source of the HIV/AIDS epidemic in our country</td>
<td>9.1% (13) 16.8% (24) 28.0% (40) 18.9% (27) 27.3% (39)</td>
</tr>
<tr>
<td>I would quit my job before I would work with someone who has AIDS</td>
<td>55.2% (79) 33.6% (48) 3.5% (5) 5.6% (8) 2.1% (3)</td>
</tr>
<tr>
<td>People should not blame homosexual community for the spread of HIV/AIDS in our country*</td>
<td>11.2% (16) 17.5% (25) 9.1% (13) 38.5% (55) 23.8% (34)</td>
</tr>
<tr>
<td>AIDS is a punishment for immoral behavior</td>
<td>26.6% (38) 25.9% (37) 12.6% (18) 18.9% (27) 16.1% (23)</td>
</tr>
<tr>
<td>I feel secure that I have reduced all risks of personally contracting HIV*</td>
<td>5.6% (8) 9.8% (14) 22.4% (32) 42.7% (61) 19.6% (28)</td>
</tr>
</tbody>
</table>

(Table Continues)
<table>
<thead>
<tr>
<th>Questions</th>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>SD</th>
<th>D</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think all children should be tested for HIV before entering school</td>
<td>47.6%</td>
<td>37.8%</td>
<td>4.9%</td>
<td>8.4%</td>
<td>1.4%</td>
</tr>
<tr>
<td>(68) (54) (7) (12) (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I believe it is the elementary classroom teacher's responsibility to teach AIDS education*</td>
<td>11.9%</td>
<td>25.2%</td>
<td>7.0%</td>
<td>37.1%</td>
<td>18.9%</td>
</tr>
<tr>
<td>(17) (36) (10) (53) (27)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In my opinion, parents of all students in the class should be notified if there is a student with HIV or AIDS in the class</td>
<td>43.4%</td>
<td>35.7%</td>
<td>7.0%</td>
<td>11.9%</td>
<td>2.1%</td>
</tr>
<tr>
<td>(62) (51) (10) (17) (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel that all school personnel who have direct contact with a student with HIV or AIDS should be notified</td>
<td>18.9%</td>
<td>14.0%</td>
<td>16.8%</td>
<td>34.3%</td>
<td>16.1%</td>
</tr>
<tr>
<td>(27) (20) (24) (49) (23)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I think that students with HIV or AIDS should be allowed to fully participate in the day-to-day activities of the regular classroom*</td>
<td>0.7%</td>
<td>4.2%</td>
<td>1.4%</td>
<td>40.6%</td>
<td>53.1%</td>
</tr>
<tr>
<td>(1) (6) (2) (58) (76)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would support including AIDS education in the curriculum in a school where I am the principal*</td>
<td>2.1%</td>
<td>2.1%</td>
<td>0.7%</td>
<td>30.8%</td>
<td>64.3%</td>
</tr>
<tr>
<td>(3) (3) (1) (44) (92)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A teacher with HIV or AIDS should be allowed to continue teaching*</td>
<td>1.4%</td>
<td>2.1%</td>
<td>1.4%</td>
<td>42.0%</td>
<td>53.1%</td>
</tr>
<tr>
<td>(2) (3) (2) (60) (76)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It scares me to think that I may have a student with HIV or AIDS in my school</td>
<td>34.3%</td>
<td>41.3%</td>
<td>9.1%</td>
<td>11.2%</td>
<td>4.2%</td>
</tr>
<tr>
<td>(49) (59) (13) (16) (6)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I believe that teachers should have the right to refuse to have students with HIV or AIDS in their classroom</td>
<td>69.2%</td>
<td>21.0%</td>
<td>1.4%</td>
<td>6.3%</td>
<td>2.1%</td>
</tr>
<tr>
<td>(99) (30) (2) (9) (3)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel that I could comfortably answer students' questions about HIV/AIDS*</td>
<td>5.6%</td>
<td>4.9%</td>
<td>5.6%</td>
<td>42.7%</td>
<td>41.3%</td>
</tr>
<tr>
<td>(8) (7) (8) (61) (59)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. SA = Strongly Agree; A = Agree; U = Uncertain; D = Disagree SD = Strongly Disagree; * Items on the scale are reverse scored.
Over half of the participants (53.1%) strongly agree that students with HIV or AIDS should be allowed to fully participate in the day-to-day activities of the regular classroom. A total of 51.7% of the school principals indicated that there should be laws enacted and enforced to protect people with AIDS from job and housing discrimination. While 64.3% of the participants said they would support including AIDS education in the curriculum of a school where they are the principals.

Some of the questions elicited negative attitude responses from the participants. Fifty-percent of the participants disagree those activities, which spread HIV, such as some forms of sexual behavior should be illegal. Half of the respondents in this study revealed that they do not agree that all school personnel who have direct contact with a student with HIV or AIDS should be informed. Attitude questions that obtained a high mean score and low mean score are reported in Table 13.
Table 13

**Attitudes Questions with the Highest and Lowest Mean Score**

<table>
<thead>
<tr>
<th>Attitudes Question</th>
<th>Highest Mean Score</th>
<th>Lowest Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe I have enough information about HIV/AIDS to protect myself in my social life</td>
<td>4.21</td>
<td></td>
</tr>
<tr>
<td>I believe I have enough information about HIV/AIDS to protect myself in my work setting</td>
<td>4.08</td>
<td></td>
</tr>
<tr>
<td>Laws should be enacted/enforced to protect people with AIDS from job and housing discrimination</td>
<td>4.13</td>
<td></td>
</tr>
<tr>
<td>I feel that more time should be spent teaching future teachers about HIV/AIDS in their university/college courses</td>
<td>4.27</td>
<td></td>
</tr>
<tr>
<td>I think that students with HIV or AIDS should be allowed to fully participate in the day-to-day activities of the regular classroom</td>
<td>4.41</td>
<td></td>
</tr>
<tr>
<td>I would support including AIDS education in the curriculum in a school where I am the principal</td>
<td>4.53</td>
<td></td>
</tr>
<tr>
<td>A teacher with HIV or AIDS should be allowed to continue teaching</td>
<td>4.43</td>
<td></td>
</tr>
<tr>
<td>I feel that I could comfortably answer students' questions about HIV/AIDS</td>
<td>4.09</td>
<td></td>
</tr>
<tr>
<td>I worry about possible casual contact with a person with AIDS</td>
<td>2.76</td>
<td></td>
</tr>
<tr>
<td>I feel uncomfortable when coming in contact with gay men because of the risk that they may have AIDS</td>
<td>2.69</td>
<td></td>
</tr>
<tr>
<td>Persons with AIDS are responsible for getting their illness</td>
<td>2.71</td>
<td></td>
</tr>
</tbody>
</table>

(Table Continues)
<table>
<thead>
<tr>
<th>Attitudes Question</th>
<th>Lowest</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homosexuality is the leading source of HIV/AIDS epidemic in our country</td>
<td></td>
<td>2.76</td>
</tr>
<tr>
<td>I would quit my job before I would work with someone who has AIDS</td>
<td></td>
<td>1.66</td>
</tr>
<tr>
<td>AIDS is a punishment for immoral behavior</td>
<td></td>
<td>2.72</td>
</tr>
<tr>
<td>I think all children should be tested for HIV before entering school</td>
<td></td>
<td>1.78</td>
</tr>
<tr>
<td>In my opinion, parents of all students in the class should be notified if there is a student with HIV or AIDS in the class</td>
<td></td>
<td>1.94</td>
</tr>
<tr>
<td>I believe that teachers should have the right to refuse to have students with HIV or AIDS in their classroom</td>
<td></td>
<td>1.51</td>
</tr>
</tbody>
</table>

Note. A mean of 4 or 5 indicates a positive attitude, and a mean of 1 or 2 indicates a negative attitude.

Only 11.9% of the total participants reported that they disagree feeling uncomfortable when coming into contact with gay men because of the risk that they may have AIDS. Respondents who disagree with the question that asked whether homosexuality is the leading source of HIV/AIDS epidemic in Namibia were only 10.5%.

The second half of the second research question investigated if there was any significant difference in attitudes of HIV/AIDS according to demographic variables among Namibian school principals. To examine any
significant difference using the demographic variables, a one-way analysis of variance (ANOVA) was performed on gender, age, academic qualification, race/ethnicity, years in principalship, grade level of the school, affiliation of the school as either private or public, location of the school, and the educational region of the school. The data is reported in Table 14.

Table 14

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>F-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>$F(1,141) = .088, p = .767$</td>
</tr>
<tr>
<td>Age</td>
<td>$F(3,139) = 1.042, p = .376$</td>
</tr>
<tr>
<td>Academic Qualifications</td>
<td>$F(3,139) = .825, p = .482$</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td>$F(3,139) = 1.186, p = .317$</td>
</tr>
<tr>
<td>Years as Principal</td>
<td>$F(4,138) = .843, p = .500$</td>
</tr>
<tr>
<td>School Grade Level</td>
<td>$F(3,139) = .614, p = .607$</td>
</tr>
<tr>
<td>Affiliation of School</td>
<td>$F(2,140) = .761, p = .469$</td>
</tr>
<tr>
<td>Location of School</td>
<td>$F(2,140) = 1.322, p = .270$</td>
</tr>
<tr>
<td>Educational Region</td>
<td>$F(12,130) = .441, p = .944$</td>
</tr>
</tbody>
</table>
The statistical analysis showed no significant difference using any of the demographic variables. No significant difference was found for gender $F(1,141) = .088, p = .767$; age $F(3,139) = 1.042, p = .376$; academic qualification $F(3,139) = .825, p = .482$; race/ethnicity $F(3,139) = 1.186, p = .317$; years in principalship $F(4,138) = .843, p = .500$; grade level of the school $F(3,139) = .614, p = .607$; affiliation of the school as either private or public $F(2,140) = .761, p = .469$; location of the school $F(2,140) = 1.322, p = .270$; and the educational region of the school $F(12,130) = .441, p = .944$.

Relationship Between Knowledge and Attitudes

The third research question of the study explored the relationship between knowledge level and attitudes level of Namibian school principals. To determine if there is a relationship among school principals' knowledge about HIV/AIDS and attitudes towards HIV/AIDS, correlation analysis was performed using the Pearson $r$ analysis at a .05 alpha level. No statistical significance was found between the total knowledge scale and the total attitudes scale ($r = .018, p < .832$).

Analysis of the overall knowledge questions revealed that school principals do not have widespread knowledge
about HIV/AIDS. Most of the participants in this study answered a large number of the questions dealing with likelihood of transmission the wrong way.

**Awareness and Implementation of the National HIV/AIDS Policy for Education Sector**

The fourth research question that was divided into two sub-questions, explored to what extent are Namibian school principals aware of the national policy on HIV/AIDS, and to what extent have Namibian school principals implemented the national policy on HIV/AIDS. As part of the questionnaire, school principals were asked to respond to 10 questions that were designed around the Ministry of Basic Education, Sport, and Culture's National Policy on HIV/AIDS for the Education Sector. To the question of whether Namibian school principals are aware of the MBESC's national policy on HIV/AIDS, only 37.8% responded they are aware of the policy document. The participants who have received a copy of the document either directly from the Ministry's head-offices, from the education regional offices, or got a copy during the official launching of the policy document where a mere 34.3%. A total of 32.9% of the participating school principals in this study have attended some workshops organized by the Ministry of Basic Education, Sport, and
Culture to help them better understand the content of the policy document. A low number (49%) of the principals were aware of any orientation meeting or workshop conducted by the MBESC to share the content of the policy document with school principals. Data for these questions are reported in Table 15.

Table 15

Responses in Percentages to the Policy-Related Questions

<table>
<thead>
<tr>
<th>Policy Related-Questions</th>
<th>Responded Yes</th>
<th>Responded No</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a principal, I am aware of the Ministry of Education's National Policy on HIV/AIDS</td>
<td>37.8</td>
<td>62.2</td>
</tr>
<tr>
<td>As a principal, I have received a copy of the Ministries of Education's National Policy</td>
<td>34.3</td>
<td>65.7</td>
</tr>
<tr>
<td>As a principal, I have attended some workshops by the Ministry of Education to better understand the content of the National Policy of HIV/AIDS</td>
<td>32.9</td>
<td>67.1</td>
</tr>
<tr>
<td>As a principal, are you aware of any orientation meeting or workshop that the Ministry of Basic Education conducted to share the content of the policy with you</td>
<td>49.0</td>
<td>51.0</td>
</tr>
<tr>
<td>After you received the policy, was there any type of follow up from the Ministry of Basic Education regarding the content and implementation process of the National Policy</td>
<td>8.4</td>
<td>91.6</td>
</tr>
</tbody>
</table>

(Table Continues)
<table>
<thead>
<tr>
<th>Policy Related-Questions</th>
<th>Responded Yes</th>
<th>Responded No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did any representative from the Ministry of Basic Education visit your school to observe the implementation process of the policy</td>
<td>13.3</td>
<td>86.7</td>
</tr>
<tr>
<td>Did you as a principal conduct any kind of orientation meeting or workshop for your teachers to convey to them the content of the National Policy on HIV/AIDS</td>
<td>38.5</td>
<td>61.5</td>
</tr>
<tr>
<td>As a principal are you required to provide any type of report to the Ministry of Basic Education's office in relation to the implementation process of the policy</td>
<td>28.7</td>
<td>71.3</td>
</tr>
<tr>
<td>As a principal, have you developed an HIV/AIDS implementation plan for your school</td>
<td>42.7</td>
<td>57.3</td>
</tr>
<tr>
<td>As a principal, have you established an HIV/AIDS Advisory Committee as the policy recommends</td>
<td>59.4</td>
<td>40.6</td>
</tr>
</tbody>
</table>

Although 37.8% of school principals have received a copy of the policy, only 8.4% reported any type of follow up from the MBESC regarding the content and implementation process of the policy in their respective schools. Of the 143 participants in this study, 13.3% reported as having been visited by a representative from the offices of the MBESC to observe the implementation process of the policy. While only 38.5% of the participants have conducted some
form of meeting or workshop with their staff members to convey to them the content of the policy document.

When asked whether they as school principals are required by the MBESC to provide any type of report in relation to the implementation process of the policy, 28.7% responded with a "yes" answer. Since the policy document requires of schools to develop an HIV/AIDS implementation plan, when asked whether they have done that, 42.7% have developed an implementation plan. The last question in this section asked school principals whether they have established a HIV/AIDS Advisory Committee for their schools as recommended by the policy document. Of the participating school principals, 59.4% have acknowledge establishing the Advisory Committee.

**Open-Ended Questions**

Open-ended questions were incorporated within this study because it was assumed that the responses to the interview would support and expand the quantifiable information. It was believed that the interview questions will allow and give the school principals who participated in this study the opportunity to reflect on the effects that HIV/AIDS may have on their students, their fellow
educators and even the community the school is part of. Open-ended questions were integrated in the study as it was thought it would give school principals a possibility to become aware of their own beliefs and attitudes associated with HIV/AIDS. By including open-ended questions the researcher hoped that additional information would give a clearer picture of the level of commitment school principals have in addressing the HIV/AIDS epidemic within their schools.

To address these questions, information was sought after and synthesized from seven face-to-face interviews with the school principals who were selected by the researcher after indicating their willingness for a face-to-face interview. The seven participants were selected based on the various years between the participants in the principalship position. Variables such as gender and racial/ethnicity identification were kept in mind. Four of the seven principals represent the Khomas region. Most of the participants in this study were from the Khomas region, but also many of them responded having implemented the policy. The researcher kept in mind the different level of implementation different schools will be at. Information was solicited as to document success story of
implementation the policy, and also document the challenges school principals are encountering in the implementation of the policy. The interview information was developed to expand the understanding of the process applied by school principals in the implementation of the policy document. Table 16 describes the demographic information of the school principals who participated in the face-to-face interviews.

Table 16

<table>
<thead>
<tr>
<th>Principal</th>
<th>Gender</th>
<th>Region</th>
<th>Race/Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Male</td>
<td>Khomas</td>
<td>White</td>
</tr>
<tr>
<td>2</td>
<td>Female</td>
<td>Khomas</td>
<td>Black</td>
</tr>
<tr>
<td>3</td>
<td>Male</td>
<td>Erongo</td>
<td>White</td>
</tr>
<tr>
<td>4</td>
<td>Male</td>
<td>Khomas</td>
<td>Colored</td>
</tr>
<tr>
<td>5</td>
<td>Female</td>
<td>Omusati</td>
<td>Black</td>
</tr>
<tr>
<td>6</td>
<td>Male</td>
<td>Oshana</td>
<td>Black</td>
</tr>
<tr>
<td>7</td>
<td>Male</td>
<td>Khomas</td>
<td>Colored</td>
</tr>
</tbody>
</table>

The interview questions were open-ended as to allow other questions to emerge during interviewing and additional ideas to the discovered. Interview questions
that permit for the formulation of other questions in addition to the already developed questions are the best option in qualitative research, as it yield to the uncovering of more needed information. Each of the interviews lasted approximately 45 to 60 minutes and was tape recorded after permission was obtained from the participants. All of the seven interviews were conducted in the school principal's office.

To analyze the interviews, a content analysis process was employed to identify themes in the transcript responses. These allowed for asked questions to be group as themes were emerging. During transcription of the interviews, patterns and meanings started to emerge and to identify emerging themes, the interviewer was guided by recurring words, ideas, patterns and phrases. The analysis from the interviews resulted in four emerging themes:

1. Awareness of the policy document.
2. Implementation process of the policy.
3. Establishment of the Advisory Committee.
4. Challenges in the implementation process.

**Awareness of the Policy Document**

Under this theme participants were asked whether they are aware of the existence of the Ministry of Education’s
national policy on HIV/AIDS. They were asked whether they have received a copy, how they have received it and have they read it. All of these questions are the basis of this theme. The participants all expressed that they are aware of the policy document and have received a copy of the document. One of the principals who showed limited knowledge about the policy content said the following when asked to quote something from the policy:

I can't say. I've read it...I wouldn't be able to pinpoint. You should have warned me. You could have told me to read it again. I would have to re-read it again. My first duty is to be a teacher. This is a sideline thing for me at the moment. In our school it is not an issue at the moment. If you're hearing what I am trying to say. (P1)

Another school principal when asked to quote something from the policy to see how aware she was about the policy content, she said the following:

I know about the policy because it was mentioned at the Khomas region principals meeting by another principal. I wish you could have told my secretary the questions you coming to ask I could have prepared myself better. (P2)

Two of the seven school principals interviewed didn't have any knowledge about the content of the policy. When asked to summarize the policy, one stated:

I have not read the policy document. I have been out of the office and have not had time to read it. I am going to read it some time by next week. (P5)
I received the policy and gave it to the AIDS Coordinator. The AIDS Coordinator facilitates all HIV/AIDS activities on behalf of the school. My role as the principal is to make sure the activities are undertaken. (P6)

Two of the principals who exhibited content knowledge about the policy were comfortable to respond to any questions asked relating to the policy. When asked about their knowledge on various issues in the policy document, this is what they responded:

I see the policy as a mandate that needs to be taken seriously and implemented in its fullness. (P7)

I see you testing me (laughter). The policy talks about the importance of having one, and how the education sector can respond to HIV/AIDS in Namibia. It talks about the need to form an Advisory Committee to address it. It has a section about confidentiality, and the rights of every child to get education despite their HIV status. Also, it present us as schools with the universal precautions to be followed to minimize any possible infection from one person to the other. It is an easy document to read. (P7)

Although all of the interviewed school principals expressed being aware or having received a copy of the policy, only two of the seven participants were comfortable to quote or re-phrase parts of the policy during the interviews.
Implementation Process of the Policy

The participants' opinion regarding the status of the policy document's implementation process was integrated into this theme. This theme explored the methods used to help all stakeholders better understand the content of the policy. Participants were asked to name the individual, if there is any, responsible in overseeing the implementation process from the regional-offices or head-offices. The theme inquire the method used to convey the content of the policy to the rest of the teachers, but more importantly how are school principals hold accountable by the Ministry of Education to make sure the policy is partially or fully implemented.

Two school principals were able to share the process undertaken by them to implement the policy document in their schools.

Oh yes. We did something here. I spend some time studying the document and talked with the AIDS coordinator how to proceed with the document. After we both came to a level of understanding and agreement, we called a staff meeting and spend some time telling them about the document and its content. (P4)

I spend sometime reading it myself, I had a meeting with the AIDS coordinator, and then we had a staff meeting. I just informed them about the policy and a little about its content. I let them know where the copy of the policy is in the office and they need to make time and read it even if they aren’t the AIDS
coordinator. It is important that all my staff members are aware of such documents that I believe are very important and need to be implemented by everyone in the school. (P7)

It appears that some of the school principals don't see the need of doing anything with the policy until they experience the problem is at the entrance of their school. Although HIV/AIDS is a national crisis in Namibia, one of the school principals didn't feel the need of implementing the policy document in their schools until they are aware of an actual case:

Look, at other schools there are 30% of kids who are HIV infected or affected, we don't have a single one. At our school at the moment, it's not priority number one - yet. So if that comes than we would confront it. (P1)

Another principal who also exhibited a lack of urgency in implementing the policy stated:

Well, AIDS is really not a problem for us. We go to all the meetings the Ministry wants us to go to and we are ready to respond when the situation arise. As of now we didn't have to deal with any of our students having AIDS. Also, the lack of human resources and other resources makes it extremely difficult for us to concentrate on that too. (P3)

The two principals, who were able to share the process undertaken in their schools to implement the policy, did so with confidence and a sense of passion. It was evident of
the work done in their schools, that they are committed to finding ways of mitigating the HIV/AIDS epidemic in their respective schools. Unfortunately, the other five principals interviewed in this study were not able to articulate the implementation process undertaken in their schools.

Establishment of the Advisory Committee

The third theme for this study explored whether schools have formed Advisory Committees as proposed in the policy document. The policy recommend that schools have to set up their own Advisory Committees made up of individuals such as teachers, parents, students, medical personnel and other community members. Under this theme the researcher wanted to know who serve on that committee and how the committee members were elected to the advisory body. In addition, what the committee members' responsibilities are, how long they serve and what are the benefits for the school for having such a body in place.

All of the participants indicated that they have a committee in place to help address issues of HIV/AIDS at the school-level. However, when asked to tell who are the members of the committee, how they were elected and how long they serve on the Advisory Committee, all but two of
the school principals refer to the school's AIDS Coordinator as making up the committee. In the case of one school two other staff members support the AIDS coordinator. One school has an Advisory Committee that consists of four teachers, while one school has two staff members involved and supported by a head of department.

The two principals who have exhibited high level of knowledge about the policy throughout the interview, where also members of their Advisory Committee, though none of them were chairpersons of the committee. They were members of the committee and attended meetings in their capacity as school principal. Both of these principals attended the launch of the HIV/AIDS policy accompanied by their AIDS coordinators. The interview revealed that for these principals it was important for them to be at the launch of the national policy. Also, important to them was the presence of the AIDS Coordinator, who is responsible for the day-to-day implementation of the HIV/AIDS activities in their schools. When asked why they took the AIDS coordinator with them to the launching meeting, one principal responded:

It was important for me to take her along as she is really the backbone of our school when it comes to HIV and AIDS programs. I needed to go as a principal, but
also making sure she was right there with me so that she can get all the necessary information that will help us address the disease in our school. (P7)

When the same principal was asked to share who is on the committee and what their activities are, this was the response:

Besides the AIDS coordinator we do have a committee made up of three teachers and two parents form the school board committee. These are the individuals I will like to spend time with making sure we all understand the policy and then go to our constituents or colleagues and do the same. We do meet twice per quarter and try to see how best we can respond to the disease. This disease is real for us. Is real for the whole country. I don’t have anyone in my family suffering from the disease, or probably they are but I am not aware of it. But our children are coming from families and homes were death is at the door. We need to care and do something for the sake of the children.

They need us all as adults whether we are their parents or not. I am committed to the implementation of the policy and makings sure at the school level we help address the problem. (P7)

Similarly, another school principal stated:

We have a committee in place already. The school advisory board is made up of three teachers, four parents, and three students. It is important that student leaders are involved. When we use our students their peers sees the seriousness and also realize that their voices are being heard. It is a committee responsible for planning school events and raising awareness at the school level. (P4)

In response to the HIV/AIDS epidemic in Namibia, schools have responded by designating a teacher as an AIDS
Coordinator, who is in charge of acting as an advisor to the local school AIDS club. Teachers assume this position in addition to their work-load. The AIDS Coordinator position was established to counter the growing threat of HIV to young people in Namibia. An extra-curricular educational program known as: My Future is My Choice was designed to reach young people by providing them with sexual health information through their peers. Some schools have made My Future is My Choice an official extra-curricular activity in their schools, with the AIDS coordinator as accountable for the school's HIV/AIDS program.

Challenges in the Implementation Process

Any endeavor to introduce a new idea or plan in any type of educational setting requires substantial planning, support and resources. Consequently, the endeavor to introduce the HIV/AIDS educational policy in schools may encounter some barriers if the implementation process is not understood or embraced by those who need to implement it.

Policy implementation that results in change or resulting on taking additional responsibilities can be difficult for everyone involved. Organizational change has
many implementation issues that must be dealt with properly. Educators, who are primarily responsible for the implementation, may not favorably look upon organizational change advocated by national government, such as mandatory administrative and curricular changes. Change is not easily accepted as one school principal indicated:

The person who is our AIDS coordinator is a classroom teacher who has a full load of teaching. It makes it very difficult for my staff to concentrate only on AIDS when there are so many other things that needs our attention. Added to that is the lack of financial resources and proper training how to handle AIDS, and makes it very difficult to address the problem. We need people who are hired only for that position to help address AIDS education. It is very hard having a regular classroom teacher also taken on extra responsibilities such as that. Also, we need materials that people can use to address the problem, and that includes financial resources that the schools can use for whatever resources they need to help address the problem. (P3)

Education is always changing and change is not easily accepted. Changes are even less readily accepted if they are seen as unnecessary or not applicable to one's situation. The reasons to reject change are multiple and varied as one principal responded when asked what are some of the challenges he may face when implementing the policy. One school principal was afraid of the reaction of the community mostly represented by the school's student...
population. Similarly, this administrator didn't see the urgency of the matter to implement the policy because in his opinion many of his students come from two-parent households.

Because we are 50% of a German community, I think that's how I see it and I don't think I'm the only one, our students come from a very protected home. From mostly 80% to 90% homes where mom and dad are still together. They don't know these things like sleeping around. This disease to them is just like "wow." They've never heard about this. They've never been confronted with AIDS. They've never had an AIDS case in their family and parents will say, "listen, careful, not to our children," because it's not part of their daily life or whatever. And I think that would be a problem. And I think teachers would say, "do it in the higher grades, not with us." And that is a fact. Most of these kids they've never come into contact with it. Never. They don't even know what it is. It's like, you know, they get it, because they come from homes where mom and dad have been together all the time and are together. (P1)

Similarly, the HIV/AIDS national policy implementation process may be deemed as a necessary and important change for the country and the educational system, or it may not be, but in either case there will be many obstacles to be overcome. As one school principal pointed out that there is no consented effort to promote the implementation process because they have the impression that individual schools are left to handle the process on their own. This principal emphasis the need to have such documents explained properly.
to everyone. This school principal believes that the Ministry of Basic Education, Sport, and Culture has to offer training and clear implementation steps to be followed when implementing the policy.

I think we need more training. Training to understand what we need to do. They send too many papers and documents to us and it is hard to follow with no proper guidelines to follow. It is very hard to do everything. (P2)

At the end of the interview, it become apparent that school principals have not formed HIV/AIDS Advisory Committee as recommended in the national policy. All of the interviewed school principals said they have HIV/AIDS Advisory Committee in place. When asked to explain the process under-taken in the establishment of such a committee it become apparent that for many school principals there is a lack of understanding the difference between the school AIDS Coordinator and the HIV/AIDS Advisory Committee.

An AIDS Coordinator is a teacher who has taken on the responsibility of being an advisor to the school AIDS club and responsible for the implementation of the extra-curricular program such as My Future is My Choice. On the other hand, the HIV/AIDS Advisory Committee is a committee that needs to be set up the school’s governing body. This
committee need to be made up of representatives from the student body, parents, teachers, counseling support staff, medical field personnel, community members, and any other experts that may deemed necessary for the implementation and monitoring of the policy. Of the seven school principals interviewed, only two were able to talk about their school HIV/AIDS Advisory Committee without connecting it to the AIDS Coordinator. As one principal stated:

Besides the AIDS coordinator we do have a committee made up of three teachers and two parents form the school board committee. These are the individuals I will like to spend time with making sure we all understand the policy. We do meet twice per quarter and try to see how best we can respond to the disease by reaching out to our students...Because of our commitment and leadership, there is a student in my school who told me of his HIV status, and I am committed to help him succeed just like any other student in this school. (P4)

Another school principal who has a HIV/AIDS Advisory Committee in place added:

We have a committee in place already. It has been working but seems like they need a bit to be pushed to keep moving. They are busy and committed individuals of the school and community. The school advisory board is made up of three teachers, four parents, and three students. It is important that student leaders are involved. When we use our students their peers see the seriousness and realize that their voices are also being heard. (P7)
Most the school principals thought the lack of financial and human resources to schools to help with the implementation process of this policy is one of the biggest obstacles they have to deal with. A school principal said:

I think every school need to have someone fully dedicate to this problem, because most time it is being sidelined because teachers have to teach before they do any extra-curricula activities. No teacher wants to stay after school and work with the students. I wish I had someone who is full-time to work on HIV/AIDS issues or even have financial resources to reward the teachers that are taking up extra-curricular activities. There is a commitment, and that need to be sustained. (P3)

The implementation process of any policy will have to under-go resistance from people. However, for such a document to be embraced and implemented, it requires individuals who can promote the policy and it’s implementation passionately. To make a significant impact, these individuals are usually in leadership positions, such as school principals. Likewise, an implementation process to take place requires not only leadership commitment, but also financial resources, human resources, commitment from school leadership, and curricular changes that are necessary and continue the implementation process of the HIV/AIDS national policy for the educational sector of Namibia.
CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Introduction

The purpose of this study was to determine the (a) HIV/AIDS knowledge level of school principals, (b) attitudes level towards HIV/AIDS of school principals, and (c) their compliance with the national policy on HIV/AIDS for the Namibian education sector. School principals in this study were selected from across the 13 educational regions in Namibia. The total number of the participants was 143. These respondents included 91 males and 52 females, who represented all levels of elementary, middle, combined, and high school grades. A majority of the participants were 46 to 55 (46.2%) years old and 47.6% reported that they have been for 1 to 5 years in the principalship position.

The survey instrument used in this study had three parts and a demographic sheet. The first part collected information on the knowledge level, which was divided into two (general and likelihood of transmission) subtests. The second part collected information on attitudes towards HIV/AIDS, and the third part collected information on the awareness and implementation process of the HIV/AIDS.
national policy for the education sector. In analyzing the information the nine demographic variables were used as independent variables against the two dependent variables: knowledge and attitudes. In this study, questions were analyzed using descriptive statistics, ANOVA, frequencies and Pearson correlation. This chapter presents conclusions and recommendations based on the findings.

Conclusions

Knowledge Level about HIV/AIDS

Namibian school principals were not well informed about the cause, symptoms, diagnosis, effects and treatment methods of HIV/AIDS. Analysis of the general knowledge subtest indicated that the participants' overall do not have a high level of knowledge about HIV/AIDS. A small group of the respondents (34.3%) know that pneumocystis carinii pneumonia and Kaposi's sarcoma are two common disorders found in persons with AIDS. Most of the participants in this study lacked the knowledge on how the virus is transmitted from one person to another. An overwhelming majority of the study (96.5%) thinks that one can get the virus from kissing someone who has AIDS. Of the total participants, only 14% comfortably know that a HIV-infected mother is able to infect her baby while nursing.
The HIV/AIDS overall knowledge score had a range of 7 to 30 items correctly answered, with a mean score of 15.06 out of 35 questions.

The results of the likelihood of transmission subtest indicated that school principals in this study do not know how HIV is passed on from one person to the other person. Knowing that neither mosquito bite nor kissing someone who has AIDS are documented modes of transmission could lighten fears that may develop from misunderstanding and misinformation. HIV cannot be transmitted through day-to-day social contact. The virus is transmitted only through blood, semen, vaginal and cervical fluids, and breast milk. Although the virus has been identified in other body fluids such as saliva and urine, no scientific evidence exists to show that these fluids can cause transmission of HIV. Lack of correct scientific information about HIV/AIDS has been associated with negative attitudes towards those living with HIV or AIDS (Al-Owaish et al., 1999; Bowman et al., 1994). In this study, school principals also showed a lack of knowledge regarding mother to child transmission.

An overwhelming majority (90.2%) of the participants believed HIV transmission from mother to child during pregnancy or birth was not possible. Responses from school
principals in this study do raise alarm of what kind of information children are getting from educators. Namibia has rolled out anti-retroviral drugs to pregnant mothers in most of the district hospitals due to the increase of mother to child transmission (Dentlinger, 2004). Such information of what is being done by other sectors in the country is important for school principals to know, because schools work on a daily-basis with teenagers who engage in risky behaviors such as early sexual intercourse, which leads to teen pregnancy. When school principals are aware of activities going on in their communities, they can act as a resource to students such as recommending HIV testing and prenatal care to students who either have fallen pregnant or engaging in risky behaviors.

Questions dealing with the usage of condoms during sexual intercourse, whether it is anal or vaginal intercourse revealed lack of knowledge. School principals should be aware of the benefits of using a condom as they work with adolescents that might be sexually active, as evident in the case of Namibia’s teen pregnancy rates (Hidinua, 2000; SIAPAC, 1994). This section of the study revealed that a significant number of Namibian school principals did not have adequate general knowledge about
HIV/AIDS, while others had either incorrect or little information.

Attitudes towards HIV/AIDS

The results of the attitudes scale revealed that most Namibian school principals have a positive attitude towards HIV/AIDS issues, with a mean score of 80.86 items answered out of a possible score of 125 for most supportive attitudes. A total of 82.6% participants believe that they have enough information about HIV/AIDS to protect themselves in their social life. Over 62% of the respondents agreed that they feel secure that they have reduced all risks of personally contracting HIV. These large percentages show a commitment on the part of school principals to look after their own well-being. The importance of self-care for school principals is beneficial for the survival of the education sector. Self-care is important because absenteeism from classrooms associated with HIV/AIDS is having a devastating impact on the sector (Abt Associates, 2002). The positive attitudes among the participants may be attributed to the fact that Namibia is facing a national crisis which is evident in the media coverage and call by governmental and non-governmental
leaders for everyone to help stop the continued spread of the HIV epidemic in the country.

Questions that focused on educational issues elicited an overall positive attitude from the participants. Over 93% of the respondents agreed that students with HIV or AIDS should be allowed to fully participate in the day-to-day activities of the regular classroom. Also, over 95% of the school principals in the study agreed that they would support including AIDS education curriculum in a school where they are working. Ninety percent of the participants indicated the need for more time spent teaching future teachers about HIV/AIDS in their university or college courses, and 56% of the school principals indicated that they believe it is the elementary classroom teacher's responsibility to teach AIDS education.

Among the attitude questions, there were questions that seek school principals' attitudes towards homosexuality issues. These questions revealed negative attitudes from school principals in this study. Over 53% of the participants indicated that they feel uncomfortable when coming in contact with gay men because of the risk that they may have AIDS. While 46.2% think that homosexuality is the leading source of HIV/AIDS epidemic in
Namibia, and 62.3% believe that people should blame the homosexual community for the spread of HIV/AIDS in Namibia. Although no known studies have been conducted in Namibia with the homosexual community to show how the community is infected and affected by the epidemic, the HIV epidemic in Namibia is mostly a heterosexual epidemic (USAID, 2003b). At the beginning of the pandemic homosexuality was often associated with HIV/AIDS by many people in the world, especially the western-world, but currently the face of HIV/AIDS has changed and there is no group of people that have been spared by this pandemic.

Two attitude questions focused on the issue of morality. A total of 52.5% of the school principals indicated that AIDS is a punishment for immoral behavior and 53.2% of the participants believe that individuals with AIDS are responsible for getting their illness. Studies have documented that such negative attitudes do contribute to stigma and discrimination (Al-Owaish et al., 1999; Tavoosi et al., 2004). If the education sector is going to play its role in fighting the HIV/AIDS epidemic in Namibia, school principals need to know that fear of stigma and discrimination often prevents people from seeking treatment for AIDS or from admitting their HIV status publicly. More
importantly is that the stigma attached to HIV/AIDS can extend into the next generation, placing an emotional burden on those left behind, for which many of them are children who are in the care of educators.

Educational-related questions elicited a negative response from the participants. The majority (85.4%) of the participants think that all children should be tested for HIV before entering school, while 79.1% agreed that parents of all students should be notified if there is a student with HIV or AIDS in the same class with their children. Many people living with HIV/AIDS do not get to choose how, when and to whom to disclose their HIV status. Unfortunately, for many their HIV-positive status is revealed to someone else without their consent. Children infected with the virus cannot be sidelined from educational settings. It is important for school principals to know that children infected with HIV may lead long and healthy lives. Like all children, they have a right to an education and those children living with HIV/AIDS do not pose a health risk to others.

This study has revealed the need for more information on how HIV is transmitted from one person to another. HIV/AIDS is not transmitted by casual contact such as
touching or hugging. School principals need to become aware that in fact, the greatest health risk in the school setting is actually to the HIV-infected person who may contract a secondary infection. People who are HIV-infected are easily susceptible to other viruses and bacteria because of the weak immune system. Also, the national policy (MBESC, 2003) does not require compulsory disclosure of a student or educator’s HIV/AIDS status to school or institution authorities, as this would serve no meaningful purpose. However, in case of genuine voluntary disclosure of a student's or educator's HIV/AIDS status to the appropriate authority should be welcomed and an enabling environment should be cultivated in which the confidentiality of such information is ensured and unfair discrimination is not tolerated. These type of negative and discriminatory attitudes have also been found in other studies such as the one by Al-Owaish et al. (1999) who report that 80% of Kuwaiti participants felt that persons with AIDS should not be left to live freely in the community.

Analysis of Demographic Variables

Demographic variables were used as independent variables for statistical analysis, with the two dependent
variables: knowledge level and attitudes level. All nine demographic variables yielded no statistically significant differences when using the attitudes questions. However, when the total knowledge questions were used, some variables did show statistically significant difference. No significant difference was found between two variables: gender and years as principal. Statistically significant differences were found among the following variables: age, academic qualification, race/ethnicity, grade level of the school, affiliation of the school, community location of the school and the educational region of the school.

Those who reported to be between the age group of 25 to 35 years were found to have scored significantly higher on the overall knowledge scale than the rest of the respondents. The age group with the lowest knowledge score was from 56 to 65 years. This significant difference might be attributed to the fact that only 12 participants fall within this age group. In this study, academic qualification did make a significant difference during the analysis. School principals who identified having a Masters of Arts or Masters of Science degree as academic qualification scored higher than their fellow school principals. Those participants describing themselves as
other scored significantly higher than the other race/ethnicity categories. However, this might be attributed to the fact that there were only seven respondents in that race/ethnicity category.

Statistical difference was found among the four-grade level of schools. Elementary school principals had the highest mean score, while the primary high (middle school) school principals scored the lowest. Institutional affiliation, of whether the school is government affiliated, religious affiliated, or just private was found having significant difference in the knowledge level. Schools that reported as private have higher scored. This may be affected to the fact that only seven of the 143 schools are private institutions with no governmental or church affiliation.

Type of community of the participating school showed statistically significant differences between the three types of communities. School principals, whose schools are located in an urban area scored higher than those schools located in a rural community. Statistically differences were also found among the 13 educational regions represented in the study. The Erongo educational region had
the highest score, while the Oshana educational region scored the lowest among the participating regions.

Relationship Between Knowledge and Attitudes

A Pearson correlation analysis revealed no statistical significant relationship between the knowledge level and attitudes level of the participating school principals. There is a belief that knowledge level is possible predictor of attitude, indicating that increasing knowledge levels of AIDS may produce more positive attitudes towards individuals with AIDS (Carducci et al., 1995). However, Ajzen and Fishbein (1977) cited that an attitude does not necessarily predict a given accomplishment resulting in a tenuous association.

Although participants in this study showed a positive attitude towards HIV/AIDS, there were areas were negative attitudes were evident. On questions relating to homosexuality, participants showed negative attitudes. Such discoveries show that introduction to a broader array of information about HIV/AIDS may be significant in increasing school principals' knowledge and attitudes towards HIV/AIDS-related issues.

While available scientific data suggest that HIV cannot be transmitted through casual contact in schools,
this correlation result of this study suggest that some aspect of uncertainty and fear still prevail among school principals. This is an interesting finding as it suggests that while AIDS education and campaigns may increase knowledge and consciousness about HIV transmission, they do not really reduce personal concern about the possibility of infection and the potential stigma associated with working or knowing HIV-infected persons.

Awareness and Implementation of the National Policy

The results of the awareness and implementation process of the HIV/AIDS national policy for the education sector of Namibia showed that not many of the school principals are aware and informed about the policy document. Results on the implementation process of the national policy on HIV/AIDS revealed that not many of the school principals (37.8%) are aware of the policy document. Most of the participants who reported that they are aware of the policy documents are from the educational regions of Khomas, with the lowest being from Kunene region. Unfortunately, many of the participants have not seen a copy of the policy document (34.3%) or attended any kind of workshop (32.9%) to learn more about the content of the policy. However, in the absence of many participants not
having seen a copy of the policy or attended a workshop, a majority of them said they have established a HIV/AIDS Advisory Committee (59.4%). This is reflective of contradicting information. It seems most of the school principals are not aware of the difference between the school’s AIDS Coordinator and the national policy’s HIV/AIDS Advisory Committee.

Namibia as a country has realized the importance of having a national policy for its education sector, now school principals as building leaders have to take that policy and view it as a blueprint for the regulation of the education system’s delivery of effective teaching and student learning. The policy should be viewed as a committed to minimize the social, economic and developmental consequences of HIV/AIDS to the education system, for all students and educators, and to provide leadership to implement an HIV/AIDS policy. Namibian school principals need to get acquainted with this document because more and more children who acquire HIV prenatally will, with better medical care, reach school-going age and attend primary schools. Also, as a result of being sexually active at a younger age, increasing numbers of learners
attending primary and secondary schools and students attending institutions might be infected.

**Recommendations**

The human immunodeficiency virus (HIV) is the virus that causes the acquired immune deficiency syndrome (AIDS), a pandemic that is spreading around the world and has infected to date more than 45-million individuals (UNAIDS, 2003). This is the third decade of HIV/AIDS. Many efforts over the years have been made by health professionals to mitigate the epidemic. Public health officials do agree that transmission and prevention of the virus are critical for people to know about HIV/AIDS. Another partner has been brought into the equation--schools. People are now realizing that schools are key settings for educating children about HIV/AIDS and for halting the further spread of the HIV infection.

Education is one of the most effective preventive approaches against HIV/AIDS, and can help ensure that school age children, who have the lowest rates of infection of any age group, can grow up free of infection. But at the same time, the HIV/AIDS epidemic is damaging the education systems, which can provide this "social vaccine," by killing educators and increasing rates of teacher
absenteeism. The pandemic is also increasing orphans and vulnerable children who are less likely to attend school and more likely to drop out. Studies have documented that young people, particularly girls, who fail to complete a basic education are more than twice as likely to become infected. These children will need to be armed with correct information that can be used to protect himself or herself from the virus. Based on this study the researcher propose the following recommendations for consideration are suggested:

1. School principals at all levels should become knowledgeable about HIV and AIDS. Such education must be ongoing, for which resources and time should be allocated, because children with HIV disease are living longer, and the number of children with HIV/AIDS who are attending school is expected to grow. Thus, all educators at one point will work with a child who have been infected or affected by the virus, and they need an understanding of the special educational, social, psychological, and medical needs of these students.

2. School principals should receive continuing HIV/AIDS education. Together with the rest of the educationally affiliated professions they can then serve as
important resources for school HIV/AIDS education programs. School principals are also instructional leaders, and as such they may be expected to provide HIV/AIDS education and to answer students' questions about HIV disease in a manner that is developmentally and culturally appropriate.

3. The socio-cultural context of HIV/AIDS with respect to taboos, beliefs and cultural expectations should be explored. School principals need to examine their own attitudes, because attitudes affect one's comfort-level with and capacity to talk about or teach specific subject matter, especially as it relates to other groups of society such as homosexuality.

4. Since the fear of AIDS is associated with misinformation about the disease and uneasiness about coming in contact with someone living positively, AIDS education should be tailored to address the misconceptions held as well as reduce the stigma attached to the disease. Therefore, AIDS education should not only focus on imparting the scientific correct information, but also counter the misinformation people have about the likelihood of transmission through casual contact.

5. AIDS education should be used to facilitate attitudinal change among school principals by leading them
to confront their personal emotions and values regarding AIDS, to the extent of even addressing the moral and ethical dilemmas surrounding the disease. Interpersonal forms of communications and open-discussions may arouse greater emotional reflection. School principals need to surround themselves with people who are living with the virus and the disease, whose stories can be used as inspirational to students. School principals can facilitate in breaking the cloud of silence that is over this disease.

6. A need exists for school principals to be educated about the importance of confidentiality. School principals have to be reminded that they are entrusted with information about students or fellow educators HIV status and must understand ethical and legal requirements for respecting confidentiality. Students or staff members are not required to disclose HIV infection status to anyone in the education system. HIV antibody testing is not required for any purpose, and a student with HIV infection has the same right to attend school and receive services as any other student. HIV infection shall not factor into decisions concerning class assignments, privileges, or participation in any school-sponsored activity.
7. At a national and local level there is a need to formulate and implement measures that will protect students and other educators who are HIV positive and have voluntarily or not voluntarily disclosed their status. Violation of privacy should be a cause for disciplinary action, criminal prosecution or personal liability for a civil suit.

8. In establishing HIV/AIDS Advisory Committee, school principals must make sure that individuals on that committee are reflective of the racial and ethnic diversity of the student body.

9. School principals need to advocate for allocation of resources for up-to-date and continuous training regarding delivery of HIV/AIDS prevention programs in schools. The resources need to be both monetary and technical.

10. Provide necessary technical support and build capacity of Namibian school principals to enable them to develop, implement, and evaluate AIDS-related school health policies, curricula, and professional development for teachers and other school personnel. This can be accomplished by identifying school principals who have
implemented the policy so that their process can be documented and used to help other implement the policy.

11. Full-time HIV/AIDS education officers at local or regional level should be consider to help address issues of integration, expansion and effectiveness, as no longer can school-based HIV/AIDS program become an appended role. This is a role that needs a full-time employee, as it is labor intensive.

12. As educational leaders, school principals need to know what is going in their building and not pass the ball to the AIDS Coordinator. Principal leadership must become a matter of effectively leading a community of fellow educators, students and the community at large. HIV/AIDS should be viewed as a national crisis and every school should urgently implement the policy and work towards reducing the continuous infection rate of the virus.

**Recommendations for Future Research**

The following recommendations for future research are offered based on the findings of this study:

1. Generally, results of this study suggest that while the majority of the school principals surveyed and interviewed showed a relatively high level of awareness regarding general knowledge about HIV, a sizeable number of
them still held a number of biases and misconceptions about how the disease is transmitted. Thus, a study focusing more on the nature of biases and misconceptions needs to be conducted.

2. This study's focus is limited to the school principals. Consequently, the role of teachers, students and community members had not been investigated. Further research is needed to understand the knowledge and attitudes of these populations, and their roles in addressing the HIV/AIDS epidemic.

3. A replication of this study should be conducted using the AIDS Coordinators in schools to find out if their principals are adhering to the national policy, and if so, how their school leaders are addressing HIV/AIDS in their schools.

4. Despite the relatively high levels of positive attitudes towards HIV/AIDS, the majority of the respondents revealed a negative attitude towards those who acquire the virus through homosexual relationships. This apparently conflicting finding necessitates the need to examine the same population's attitudes towards homosexuality and HIV/AIDS.
5. A future study may be carried out to determine nation-wide perceptions concerning attitudes towards HIV/AIDS. Results from such a study could determine whether school principals and national government's concerns about HIV/AIDS are similar.

6. A national study of school principals could be conducted to identify the strengths and weaknesses of implementing the national policy in schools so as to help improve the challenges experienced by school principals throughout the implementation process.

7. Finally, since this is the first major HIV-related survey of the school principals' population in Namibia, future studies need to investigate the knowledge and attitudes of all principals in all schools in Namibia.

Summary

Undeniably, HIV/AIDS has led to increased morbidity and mortality among young adults in many parts of sub-Saharan Africa, including Namibia. Although all sectors of society have been affected, one sector in particular has been the focus for attention in addressing HIV/AIDS in the past few years. The education sector has become the primary vehicle of winning the fight against HIV/AIDS; one of the great challenges facing humanity today.
Education leading to the reduction of risk-taking behavior remains a critical component in the efforts to prevent HIV infection. The responsibility to provide such an education is broadly shared by every member of society, but more so by educators. Schools, therefore are in a better position to raise students' awareness and knowledge about HIV/AIDS, and to help them develop healthy lifestyles. In light of the national crisis Namibia is currently dealing with, school principals need to become visionary, community leaders. They need to keep in mind that every child, regardless of HIV status, has the right to be educated in a trusting and caring school environment.

Results from this study revealed that Namibian school principals generally have positive attitudes towards HIV/AIDS, however, there is still need for improvement as schools attract a diverse student population. In order to eliminate school principals' misconceptions about HIV/AIDS, and strengthen their compassion towards individuals with HIV or AIDS, it is essential to provide school principals with complete and accurate information surrounding all aspects of HIV/AIDS. The future of school-age children may well depend on the benefit of gaining correct scientific information from a well informed and caring school leader,
in hope that school-age children will develop health-related beliefs, and behaviors that can prevent the transmission of the HIV virus.

By doing so, we would have fulfilled the hopeful sentiments shared by President Mwai Kibabi of Kenya: "the pandemic cannot only be fought sometimes, but must be fought all the time, every moment, every day," and by the former First-Lady of Mozambique and South Africa, Ms. Graça Machel, wife of ex-President Nelson Mandela: "it is possible to have a generation without HIV/AIDS - we are the ones to make it possible."
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APPENDIX A

NATIONAL POLICY ON HIV AND AIDS FOR THE EDUCATION SECTOR
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JANUARY 2003
Namibia has been independent for more than ten years, and the nature of the struggle facing our country has changed. The fight is no longer for freedom from political domination, but against HIV and AIDS.

HIV and AIDS is a continuing, critical public health issue. It is now the leading cause of death in Namibia, Africa and the fourth common cause of death worldwide. The HIV and AIDS crisis continues to expand in numbers and extent, without immediate medical solutions in view. HIV and AIDS is not only a health issue, it has socio-economic implications too. Namibia’s development depends, to a large extent, on the development of its human capital. Namibia’s human resources are being eroded by HIV and AIDS. As a consequence, both Ministries of Education have recognised the centrality of the prevention of HIV and AIDS, the support of people infected and affected with HIV and AIDS and the mitigation of the effects of HIV and AIDS. Interventions in education should provide the knowledge, and encourage the development of attitudes and skills, with which the spread and impact of the epidemic could be alleviated.

The development of this policy was a collaborative effort. The education sector, through the Policy Working Group of the Joint HIV and AIDS Committee for Education, and under the leadership of the Legal Assistance Centre, conducted focus group discussions at all levels of the education sector, regional consultations, forum meetings and a national conference. In May this year the Cabinet approved the policy. The HIV and AIDS policy provides the foundation for the National Strategic Plan on HIV and AIDS-Medium Term Plan II 1999-2004. The policy reflects the human rights provisions contained in the Constitution of the Republic of Namibia, the Namibian HIV and AIDS Charter of Rights and the international conventions ratified by Namibia.

This policy formalises the rights and responsibilities of every person involved, directly or indirectly, in the education sector with regard to HIV and AIDS: the learners, their parents and caretakers, teachers, administrators, ancillary staff, planners, in fact the whole of civil society. It underscores the dignity of all affected and infected by the disease and the respect that is their due. The policy provides guidelines to ensure that all in the education sector are fully informed about the disease, the way it is transmitted, the consequences and living positively with it.

Policies should not remain on bookshelves. We should all read and internalise this policy, and most importantly implement it in its entirety. We call on a concerted effort within the education sector to implement the HIV and AIDS policy.

On behalf of both Ministries of Education, we convey our sincere appreciation to Advocate Michaela Figuera from the Legal Assistance Centre and the members of the HIV and AIDS Policy Working Group for their active involvement in the entire policy development process.

Last, but not least, we would like to express our gratitude to UNESCO and UNAIDS for the invaluable support, which enabled us to develop and print the HIV and AIDS Policy.

[Signatures]

Minister, Basic Education, Sport and Culture

Minister, Higher Education, Training and Employment Creation
Table of Contents

Introduction ...................................................................................................................................................... 1
Guiding Principals ........................................................................................................................................... 2
Scope of application ......................................................................................................................................... 3
Non-discrimination and equality with regard to learners and students living with HIV and AIDS ......... 3
HIV testing, admission and continued attendance at School and Institutions ........................................ 4
Confidentiality and disclosure of HIV and AIDS-Related information ...................................................... 5
Orphans and vulnerable children .................................................................................................................... 5
A safe school and Educational Institution Environment ........................................................................ 6
Prevention of HIV Transmission during play and sport .............................................................................. 6
Education and Information on HIV and AIDS ............................................................................................. 7
Duties and Responsibilities of learners, students, education sector employees, parents and caregivers .......... 8
Refusal to study with, teach, or be taught by those living with HIV or AIDS ............................................ 8
HIV and AIDS as a workplace issue in the Education Sector ................................................................... 9
HIV and AIDS Advisory Committee and Implementation plans .............................................................. 10
Implementation of this National Policy on HIV and AIDS ....................................................................... 10
Planning .......................................................................................................................................................... 10
Budget ........................................................................................................................................................... 10
Interaction with civil society and other Parastatals ................................................................................... 10
Regular Review ........................................................................................................................................... 11
Universal Precautions ................................................................................................................................. 11
Alternatives ................................................................................................................................................... 12
Content of HIV and AIDS Education Programmes .................................................................................. 12

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1. Introduction

Namibia ranks as one of the five countries in the world most affected by HIV and AIDS, with an overall rate of 22.5% among sexually active adults. AIDS has already caused life expectancy at birth in Namibia to fall from 58.8 years in 1995 to 43 years in 2000. Costs of the epidemic are staggering. They include the increasing expense of medical care and the loss of workers, parents and children.

The number of reported deaths in the age group 15-49 years continues to increase. By 2000, this group accounted for more than 50% of all deaths in hospitals. Young people (10 to 24 years) are estimated to account for up to 60% of all new HIV infections. Women and girls are particularly vulnerable.

It is evident from the latest statistics that HIV infections and deaths are increasing in the economically active age group of 15-49 years. HIV and AIDS will continue to impact both the education system and human development in Namibia.

If HIV and AIDS is not prevented among youth, there will be a massive loss of life and investment in education with negative effects on development.

There is increasing recognition that the education sector has an important role to play in the prevention of HIV infection, in the support of infected and affected people, and in maintaining service delivery despite the impact of AIDS. The sector's roles have begun to expand from its earlier role as a partner of other organisations in HIV prevention activities.

Both Ministries of Education developed a groundbreaking strategic and operational plan on HIV and AIDS in 2001 and its implementation has been started. The plan lays out ways to refine and implement strategy in particular areas that are consistent with, but go beyond, objectives laid out for the sector in the National Strategic Plan on HIV and AIDS for 1999-2004. Though prevention is the primary focus of the plan, it also covers aspects of care, support, and reducing impacts on both employees and learners.

2. Guiding Principles

2.1 Although HIV may be transmitted through HIV infected blood or from mother to child in the course of pregnancy, delivery or breastfeeding, the main way is through unprotected sexual intercourse. Large numbers of learners, students and education sector employees are sexually active. Thus, large numbers of individuals in the education sector are at risk of HIV infection.

2.2 There are learners, students and education sector employees living with HIV or AIDS or at risk of contracting HIV. Because of the national increase in infection rates, learners, students and education sector employees living with HIV or AIDS will increase. Since many young people are sexually active, increasing numbers are at risk of being infected with HIV. Moreover, there is a risk of HIV transmission as a result of sexual abuse of children in Namibia. Because of the increase of HIV and AIDS at educational institutions, it is important that each institution have a strategy to cope with and reduce the impact of the epidemic.

2.3 HIV cannot be transmitted through day-to-day social contact. The virus is transmitted only through blood, semen, vaginal fluids and breast milk. The virus cannot be transmitted through unbroken skin. Although small amounts of the virus occur in other body fluids such as saliva and urine, no scientific evidence exists to show that these fluids can cause HIV and AIDS should therefore be considered core business for every educational institution and professional.
transmission of HIV. As a result, there is no risk of transmission from saliva, sweat, tears, urine, respiratory droplets, handshake, swimming pool water, communal bath water, toilets, food or drinking water.

2.4 The HIV test now used will not show a positive result for a period (known as the window period) of up to twelve weeks after infection with the HIV virus. Therefore, a single HIV test is not an absolute indicator of HIV status. The possibility also exists that a person may become infected with HIV after having tested negative for HIV. In addition, there is a delay of a number of years between infection with HIV and the beginning of clear symptoms. It is thus impossible to know with certainty who has HIV and who does not.

2.5 Compulsory disclosure of a learner, student's, or education sector employee's HIV status to educational institution authorities is not recommended. Voluntary disclosure of HIV status is however encouraged. In the case of voluntary disclosure of HIV status, educational institution authorities and employers should be prepared to handle such disclosures and be given support to treat this information confidentially. This means that such information may not be made known to or shared with any other person without the written consent of the person who made the disclosure.

2.6 Learners and students living with HIV or AIDS should lead as full a life as possible. They should not be denied the opportunity to receive an education to the maximum of their ability. Likewise, education sector employees living with HIV or AIDS should lead as full a professional life as possible. They should have the same rights and opportunities as other education sector employees, with no unfair discrimination being practised against them only on the basis of their HIV status.

2.7 When injuries occur at educational institutions, the risk of transmission of HIV can be effectively eliminated by following good hygiene practices and the universal precautions set out in Annexure "A" of this policy. When dealing with injuries and other possible exposure to HIV, all persons should be considered as possibly infected and their blood and body fluids treated as such.

2.8 Current scientific evidence suggests that as long as universal precautions are practiced, the risk of HIV transmission during teaching, sport and play activities is insignificant. Therefore, the universal precautions set out in Annexure "A" must be adhered to and applied in all educational institutions.

2.9 Parents and caregivers must be encouraged and assisted by educational institutions to provide their children with sexual health (including sexuality) education and guidance regarding sexual abstinence until marriage and faithfulness to their partners. Such education and guidance should be provided in addition to sexual health and life skills education being provided by education sector employees. Sexually active learners and students must be counselled both at home and at educational institutions to practise safe sex and to use condoms. Learners and students must be educated both at home and at educational institutions about their rights concerning their own bodies, to protect themselves against rape, violence, risky sexual behaviour and contracting HIV.

2.10 The constitutional rights of all learners, students and education sector employees must be protected on an equal basis. If a suitably qualified person determines that a learner, student or education sector employee poses a significant health risk to others, appropriate measures should be taken to eliminate that risk. A significant health risk in the context of HIV and AIDS could include the presence of untreatable contagious (highly communicable) diseases, uncontrollable bleeding, unmanageable wounds, or sexual or physically aggressive behaviour, which may create the risk of HIV transmission. In particular, sexually aggressive behaviour creates the highest risk of transmission. Educational institutions must take measures to eliminate this risk as far as possible.

2.11 Furthermore, learners, students and education sector employees with infectious illnesses such as tuberculosis (TB), measles, German measles, chicken pox, whooping cough and mumps should be kept away from the educational institution to protect others at the institution, especially those whose immune systems may be impaired by HIV and AIDS.

2.12 Educational institutions should inform parents or caregivers about vaccination/inoculation programmes and their possible significance for the well-being of learners and students living with HIV or AIDS.

2.13 Learners and students must receive education about HIV and AIDS on an ongoing basis in the context of sexual health and life-skills education. Stand alone life skills, sexual health and HIV and AIDS...
education programmes should be reinforced through the inclusion of these topics in the whole curriculum. Information should be presented in a scientific but understandable way. Appropriate course content should be included in the pre-service and in-service training of educators to enable them to adequately respond to HIV and AIDS in schools.

2.14 The purpose of education about HIV and AIDS is to prevent the spread of HIV infection, to reduce excessive fears about the epidemic, to reduce the stigma and discrimination associated with HIV and AIDS, and to foster non-discriminatory attitudes towards persons with HIV and AIDS. Educators should ensure that learners and students acquire age- and context-appropriate knowledge and skills in order that they may adopt and maintain behaviour that will protect them from HIV infection.

2.15 All educational institutions should identify the most appropriate staff and/or external facilitators and systems to ensure that sexual health, HIV and AIDS and life skills education are effectively delivered to all learners and students. Life skills and sexual health programmes such as “My Future My Choice” offered by non-governmental and civil society organisations may be used to supplement life skills and sexual health education offered in educational institutions. Because of the sensitive nature of the learning content, the persons selected to offer this education should be specifically trained and supported by the support staff responsible for life-skills, sexual health and HIV and AIDS education in the particular educational institution. The persons responsible for this education should feel at ease with the content, should be role models with whom learners and students can easily identify, and should facilitate the participation of learners and students during their education on life-skills, sexual health and HIV and AIDS. All educators should also be informed by principals and educator unions of courses for educators to improve their knowledge of, and skills to deal with, HIV and AIDS. All educators should also be given reasonable opportunities to attend such courses.

2.16 All educational institutions should identify the most appropriate staff and/or external facilitators and systems to ensure that support and counselling services are rendered to learners and students infected, affected or orphaned by HIV and AIDS and other vulnerable children.

2.17 All educators should be trained to give guidance on sexuality, sexual health and HIV and AIDS. Educators should respect their position of trust and the rights of all learners and students in the context of HIV and AIDS.

2.18 This national policy is intended as a broad framework on which individual educational institutions may build. It has been kept broad in order to meet the wide variety of circumstances that exist in Namibia and in recognition of the importance of governing bodies, parents and caregivers in the education partnership. Heads of educational institutions are responsible for giving operational effect to this policy by developing an HIV implementation plan in consultation with governing bodies and parents or caregivers. Within the framework of the national policy, such plans should reflect the needs and values of their specific educational institution and its community.

3. Scope of application
This national policy shall be applicable to all government and private education institutions in Namibia.

4. Non-discrimination and equality with regard to learners and students living with HIV and AIDS

4.1 The promotion and protection of human rights plays an important role in the impact of HIV and AIDS on society and on the vulnerability of people to HIV infection. People living with HIV or AIDS in Namibia face discrimination and stigma on a daily basis. In the home environment they face rejection by family, friends and partners. In the work environment they face rejection by co-workers and even dismissal. They face daily violations of their fundamental right to freedom from discrimination and equality before the law. This violation of their rights increases the negative impact of the epidemic on individuals, because people have to worry about stigma and discrimination in addition to their health and HIV status.

The violation of the right of those living with HIV or AIDS to freedom from discrimination also affects the health of the general population. The fear of stigma and discrimination is one of the biggest deterrents to a voluntary HIV test. Possible stigma and discrimination stop many people from finding out about their HIV status. Affected people also avoid detection and contact with health and social services. The result is that those most needing information, education and counselling do not receive those services.
Safeguarding human rights in the context of HIV and AIDS thus has a public health benefit. People are more likely to go for counselling and testing and to access information and education on HIV prevention if their right to freedom from discrimination is protected and upheld.

4.2 No learner or student living with HIV or AIDS may be unfairly discriminated against directly or indirectly only on the basis of his or her HIV status.

4.3 No learner or student may be stopped from attending an educational institution or from participating in sports or play activities, only on the basis of his or her HIV status.

4.4 Learners and students living with HIV and AIDS should be treated in a just, humane and life-affirming way and provided with support and counselling.

4.5 Consultative mechanisms must be put in place in educational institutions to ensure that learners and students can effectively participate in the decision-making and solution-seeking process concerning HIV and AIDS in those institutions.

4.6 Any special measures put in place concerning a learner or student living with HIV or AIDS should be fair and justifiable in the light of current medical facts and knowledge and established legal, ethical and human rights principles.

4.7 All learners and students should be educated about the fundamental human rights and freedoms contained in the Constitution of the Republic of Namibia. In particular, they should learn about the basic rights and freedoms of learners, students and education sector employees living with HIV and AIDS and the need for a human rights based response to HIV and AIDS.

5.1 There is no medical justification for routine HIV testing of learners or students. The testing of learners or students for HIV as a requirement for admission to, or continued attendance at an educational institution, is prohibited.

5.2 No learner or student may be denied admission to or continued attendance at an educational institution as a result of his or her HIV and AIDS status or perceived HIV and AIDS status.

5.3 Learners and students living with HIV or AIDS have the same right as all other learners and students to attend any school or other educational institution. The needs of learners and students living with HIV and AIDS with regard to their right to basic education should be accommodated in the educational institution as far as is reasonably practicable.

5.4 Learners and students living with HIV and AIDS are expected to attend classes in accordance with legal requirements for as long as they are able to do so effectively.

5.5 Learners of compulsory school-going age living with HIV and AIDS, who are unable to benefit from attendance at school or home education, may be granted exemption from attendance by the Regional Director, after consultation with the principal, the parent and a medical practitioner.

5.6 If learners and students with HIV and AIDS become incapacitated by any illness, the Ministries should support continued learning where possible and must ensure that work is made available to them for study at home. Parents or caregivers should be allowed to educate their children at home or provide older learners with distance education, where practically possible.

5.7 Learners and students who cannot be accommodated in this way or who develop HIV and AIDS-related behaviour problems or physical or mental disabilities, should be accommodated within the education system, as far as is practically possible. Educators must be empowered to take care of and support HIV-positive learners, to safeguard their rights, and to ensure the best possible environment for living positively with HIV and AIDS.

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6. Confidentiality and disclosure of HIV and AIDS-Related information

6.1 The stigma and discrimination experienced by people living with HIV or AIDS in Namibia make it difficult for many people to be open about their HIV status. As a result, HIV and AIDS are surrounded by secrecy. This secrecy results in silence and denial about HIV and AIDS, which in turn reinforces stigma and undermines efforts to control the spread of HIV. In a climate such as this, the principle of confidentiality is not only essential to respect human rights but is also an integral part of prevention and control. If the silence around HIV is to be broken, confidentiality must be assured. People will not seek HIV-related counselling, testing or treatment if they are not assured that information about their HIV status will be treated confidentially. Therefore, confidentiality must be kept at all times.

6.2 No learner or student (or parent, caregiver or guardian on behalf of a learner or student) shall be required to disclose his or her HIV status to an educational institution. No educational institution shall be permitted to enquire about a learner or student’s HIV status during enrolment either verbally or by way of the registration form.

6.3 Voluntary disclosure of a learner or student’s HIV status to the educational institution attended by him or her should be encouraged. An enabling environment should be developed in which the confidentiality of such information is ensured and in which unfair discrimination on the basis of HIV status is not tolerated.

6.4 Any person who knows about the HIV status or medical condition of a learner or student with HIV and AIDS must keep this information confidential. He or she may not disclose this information to anyone without the express written permission of the learner or student and his or her parent, caregiver or guardian. Failure on the part of an education sector employee to keep such information confidential will constitute misconduct. Appropriate disciplinary measures will be taken against any education sector employee found guilty of such misconduct.

7. Orphans and vulnerable children

7.1 All heads of government education institutions, parents and caregivers shall be provided with information about allowable exemptions for the payment of school and hostel fees by learners of compulsory school going age who are unable to pay such fees.

7.2 No learner shall be excluded from a government school only as a result of their inability to pay school fees or to afford a school uniform. No learner shall be excluded from examinations conducted at a government school as result of their inability to pay examination fees.

7.3 All education sector employees should be sensitised about the special needs of learners and students infected, affected or orphaned by HIV and AIDS and other vulnerable children. Heads of educational institutions should facilitate the access of such learners and students to support and counselling services and, where necessary, to school feeding schemes. Heads of educational institutions are responsible for establishing, the functioning, supporting and monitoring of effective support and counselling services at their institutions.

7.4 Heads of educational institutions should ensure effective inter-school referral systems to minimize disruption and to provide support to learners when they have to be transferred after a parent or caregiver dies.

7.5 Heads of educational institutions should ensure adequate flexibility in scheduling and rules, including school hours, responses to being late or erratic attendance, age norms and facilitation of homework by learners and students orphaned or otherwise affected by HIV and AIDS.

7.6 Heads of educational institutions and heads of hostels should ensure that allocation of accommodation in hostels should favour the most vulnerable learners and students. In areas where there are limited or no hostel facilities, heads should facilitate community-boarding alternatives for learners and students.

7.7 In consultation with the institution’s HIV and AIDS Advisory Committee, Heads of educational institutions should work to develop networks of support for orphans and vulnerable children at each educational institution. Such networks should use available resources both in the institution and outside of it. Support provided should respond to the wide range of needs that exist.
8. A safe school and Educational Institution Environment

8.1 An important issue is sexual harassment, abuse, exploitation, and assault of students or learners by educators or peers or other adults at educational institutions that may place students or learners at risk of exposure to HIV.

8.2 All educational institutions should ensure that appropriate systems and safeguards are in place and enforced to prevent such sexual harassment, abuse, exploitation, or assault of students or learners. A policy of zero tolerance should be adopted in this regard.

8.3 No education sector employee who acts in loco parentis in respect of learners or students may engage in sexual relations with learners or students. Should any education sector employee engage in sexual relations with a learner or student, such behaviour on the part of the education sector employee will constitute misconduct. Appropriate disciplinary measures will be taken against any education sector employee who is found guilty of such misconduct. All educational institutions should ensure that appropriate systems and safeguards are in place to enable learners and students to lodge complaints concerning such misconduct. Such systems should ensure that learners do not face fear of retribution and are not subject to undue pressure by education sector employees to withdraw such complaints.

8.4 Educational institutions should also ensure that security and supervision in hostels is adequate to ensure that learners and students accommodated are not at risk of sexual harassment or abuse that puts them at risk of HIV infection. Hostels should be used as a venue for providing information and education on sexual health and HIV and AIDS to hostel dwellers and to provide care, counselling and support to those accommodated who are living with HIV or AIDS.

8.5 To reduce the risk of HIV transmission through exposure to HIV infected blood or other bodily fluids, all educational institutions should implement the universal precautions set out in Annexure “A”. In situations of potential exposure to HIV, all persons should be dealt with as if they are potentially infected and all blood should be treated as such. All blood, open wounds, sores, breaks in the skin, grazes and open skin lesions, as well as all body fluids and excretions which could be stained or contaminated with blood (for example tears, saliva, mucus, phlegm, urine, vomit, faeces and pus) should be treated as potentially infectious.

8.6 All learners, students and education sector employees, including sports instructors and coaches, should be given appropriate information and training on HIV transmission, the handling and use of first-aid kits, and the application and the importance of adherence to the universal precautions.

8.7 All educational institutions must have available and maintain an adequate number of first-aid kits for the size of the institution. All education sector employees, learners and students should be made aware of the location of these kits. These first aid kits should be equipped with the items referred to in Annexure “A” as the recommended content of first aid boxes.

8.8 A fully equipped first-aid kit should be available at all educational institution events, outings and tours. Such a kit should be kept in each vehicle used for the transport of students or learners to such events.

8.9 The contents of the first-aid kits should be checked each week against a contents list by a designated staff member of the educational institution. Expired and depleted items should be replaced immediately.

8.10 Learners, students and education sector employees should be trained to safely manage their own bleeding or injuries and to assist others to do so.

8.11 Learners, especially those in pre-primary and primary schools, and students should be educated never to touch the blood, open wounds, sores, breaks in the skin, grazes and open skin lesions of others, nor to handle injuries on their own such as nosebleeds, cuts and scrapes of friends. They should be taught to call for the help of an education sector employee immediately.

9. Prevention of HIV Transmission during play and sport

9.1 The risk of HIV transmission as a result of play and sport activities is generally insignificant. Therefore, no student or learner should be stopped from participating in sport or play activities only on the basis of his or her real or perceived HIV status.

9.2 Adequate wound management is essential to contain the risk of HIV transmission during play and sport.
9.3 No learner, student or education sector employee may participate in play or sport activities with others if they have an open wound, sore, break in the skin, graze or open skin lesion.

9.4 If bleeding occurs during play or sport activities with others, the injured player should be removed from the playground or sports field immediately. The bleeding wound shall be completely covered with a waterproof dressing or plaster. Only then may the player resume playing and only for as long as any open wound, sore, break in the skin, graze or open skin lesion remains completely and securely covered.

9.5 A first-aid kit equipped with the items recommended in Annexure “A” should be available wherever play or sport activities take place.

9.6 Education sector employees acting as sports administrators, instructors, managers and coaches should ensure the availability of first-aid kits during sporting events and practice. They should also ensure that the universal precautions are followed in the event of bleeding during participation in sport activities.

9.7 Education sector employees acting as sports administrators, instructors, managers and coaches have special opportunities for educating participants about HIV and AIDS transmission. They should make use of those opportunities. They should also encourage sports participants to seek medical and other appropriate counseling where appropriate.

10. Education and Information on HIV and AIDS

10.1 A continuing life-skills, sexual health and HIV and AIDS education, prevention and care programme must be implemented at all educational institutions for all learners, students and education sector employees. Such programmes must also be implemented at hostels.

10.2 Age- and ability-appropriate education on HIV and AIDS must form part of the curriculum for all learners and students. Such education should be integrated into the life-skills and sexual health education programme and all other subjects for pre-primary, primary and secondary school learners. The recommended content for such education is set out in Annexure “B”.

10.3 Education and information regarding HIV and AIDS must be given in an accurate and scientific manner and in language and terms that are understandable. Such education shall take the form of stand-alone sexual health, HIV prevention skills, and HIV and AIDS education programmes that are reinforced by including these topics into all aspects of the curriculum. Such education and information should specifically address and dispel myths concerning HIV and AIDS (for example, having sex with a young girl will cure HIV and AIDS). They should also inform learners and students about particular factors in the education institution’s local community that place learners and students at risk of HIV infection.

10.4 The Ministries shall appoint and train enough education sector employees as are needed to ensure that adequate attention is given to the teaching of life skills, sexual health and HIV and AIDS education at each educational institution.

10.5 Parents and caregivers of learners and students must be informed about all life skills, sexual health, HIV prevention skills, and HIV and AIDS education offered at the educational institution, including the learning content and methods to be used. Parents and caregivers should be invited to participate in parental guidance sessions and should be made aware of their role as sexuality and sexual health educators at home.

11.1 Each learner, student and education sector employee has the responsibility to protect him or herself against HIV infection or reinfection, as the case may be. This responsibility shall be recognized and supported by appropriate continuing life skills, sexual health and HIV and AIDS education programmes and the provision of condoms in educational institutions and hostels.

11.2 All learners, students and education sector employees should respect the rights of others regardless of their HIV status.

11.3 The Code of Conduct adopted for learners or students at an educational institution should include provisions about the unacceptable of behavior that discriminates against others with HIV and AIDS or that may create the risk of HIV transmission.
Parents or caregivers of all learners and students are encouraged:

11.4.1 to require learners or students to observe all rules aimed at preventing behaviour which may discriminate against others living with HIV and AIDS or which may create a risk of HIV transmission; and

11.4.2 to take an active interest in acquiring information and knowledge about life-skills, sexual health and HIV and AIDS supplied by the educational institution, and to attend meetings convened for them in this regard by the educational institution or the school board.

Education sector employees have a particular duty to ensure that the rights and dignity of all learners, students and other education sector employees are respected and protected, regardless of their HIV status.

11.5 Education sector employees may not refuse to study with a fellow learner or student or to be taught by an education sector employee living with or perceived to be living with HIV or AIDS. Similarly, education sector employees may not refuse to teach or interact with a learner or student living with or perceived to be living with HIV or AIDS.

12.2 Accurate and understandable information on HIV and AIDS should be provided to all education sector employees, learners, students and their parents or caregivers in order to avoid refusal to study with a learner or student, or to be taught by an education sector employee living with, or perceived to be living with HIV or AIDS.

12.3 Education sector employees living with HIV or AIDS should continue to work under normal conditions in their current employment for as long as they are medically fit to do so. When on medical grounds they...
are unable to continue with normal employment, the normal rules regarding incapacity should apply.

13.2.5 Where an education sector employee accidentally contracts HIV in the course and scope of his or her employment, he or she shall be entitled to employee’s compensation in terms of the Employees’ Compensation Act.

13.3 Heads of schools and other educational institutions shall ensure that:

13.3.1 The contents of this policy are communicated to all education sector employees in their school or institution and that those employees are informed both verbally and in writing of HIV and AIDS and sexually transmitted disease (STD) programmes in the workplace;

13.3.2 Appropriate HIV and AIDS and STD education and awareness programmes for the education sector employees in the workplace are designed and implemented, without delay. These programmes shall be designed in consultation with and aimed at all levels and categories of education sector employees. Such programmes shall include:

13.3.2.1 Basic information about HIV and AIDS, how it is spread and how it can be prevented;

13.3.2.2 The promotion of non-discriminatory, supportive and sensitive attitudes towards people living with HIV or AIDS;

13.3.2.3 Information on the rights and services available in the workplace to people living with or affected by HIV or AIDS. Such information will include counselling and support services, benefits available in terms of the applicable medical aid and pension schemes, and living positively with HIV;

13.3.2.4 Information on condom use and other safer sexual practices and the provision of condoms in the workplace; and

13.3.2.5 Information on first aid and on the universal precautions to be followed when attending to injured and bleeding education sector employees, learners or students and the provision of materials for the implementation of the universal precautions;

13.3.3 HIV and AIDS and STD programmes in the workplace are monitored and evaluated, key personnel are trained about HIV and AIDS, and employees affected by the disease are properly managed;

13.3.4 Sufficient resources are made available to deal with HIV and AIDS and STD issues in the workplace; and

13.3.5 There is contact with local AIDS service organisations and other resources in the community to explore means of making a broader range of services and support available to education sector employees living with or affected by HIV and AIDS.

13.4 All education sector employees will be held responsible and accountable for complying with this policy. HIV and AIDS programmes will take place during working hours where reasonably possible and education sector employees will be encouraged to attend and participate in such programmes.

13.5 All heads of schools and other educational institutions shall be responsible for the implementation of this policy. They shall ensure compliance with and knowledge of the policy’s provisions and take immediate and appropriate corrective action when provisions of the policy are not complied with. Heads shall open and maintain appropriate communication channels to enable education sector employees to raise concerns and grievances concerning HIV and AIDS and STDs. Heads are also encouraged to attend HIV and AIDS programmes in the workplace and to lend visible support to these programmes.

13.6 The Ministries shall ensure that an adequate pool of substitute staff is made available so that education sector employees who are temporarily incapacitated due to illness are replaced without delay to ensure minimum disruption to the studies of learners and students.
14. HIV and AIDS Advisory Committee and Implementation plans

14.1 Each educational institution should establish its own HIV and AIDS Advisory Committee as a committee of the governing body.

14.2 The HIV and AIDS Advisory Committee should:

14.2.1 be set up by the governing body and consist of representatives of:

- education sector employees;
- parents or caregivers of learners or students at the institution;
- learners or students;
- local medical, health care and social services practitioners;
- traditional healers;
- the local Regional Aids Committee for Education (RACE); and
- the support and counselling services.

14.2.2 elect its own chairperson;

14.2.3 advise the governing body on all matters relating to HIV and AIDS;

14.2.4 be responsible for developing and promoting a plan for the implementation of this policy at the educational institution and monitor, evaluate and review the plan and its implementation from time to time, especially as new scientific and medical knowledge about HIV and AIDS becomes available; and

14.2.5 advise and be consulted on provisions relating to the prevention of HIV transmission in the Code of Conduct.

15. Implementation of this National Policy on HIV and AIDS

15.1 The regional Directors, Directors of divisions in the Ministries, Inspectors and school/institution Heads are responsible for the implementation of this policy. Every education region must designate and appoint an HIV and AIDS Programme Manager to communicate the policy to all education sector employees, to implement, monitor and evaluate the HIV and AIDS programme, to advise management regarding programme implementation and progress, and to create a supportive and non-discriminatory environment in collaboration with RACE members.

15.2 The school or institution Head or the head of a hostel is responsible for the practical implementation of this policy at his or her institution or hostel.

15.3 The governing body of an educational institution should take all reasonable measures to supplement the resources supplied by the State in order to ensure the availability at the institution of adequate materials (even in the form of less sophisticated material) for the effective implementation of the universal precautions.

16. Planning

The Ministries commit themselves to integrating an understanding of the HIV and AIDS epidemic in all planning processes within the education sector.

17. Budget

The Ministries commit themselves to making adequate provision in their budgets for the effective implementation of all aspects of this policy.

18. Interaction with civil society and other Parastatals

The Ministries commit themselves to:

18.1 The establishment of effective partnerships with AIDS service and other community based organisations to co-ordinate and combine efforts in addressing all aspects of HIV and AIDS in the education sector.

18.2 Interacting with other sectors to:

- share experiences and knowledge in effectively and appropriately responding to HIV and AIDS in the education sector; and
- ensure that the HIV and AIDS epidemic is dealt with in a co-ordinated and united fashion.
The HIV and AIDS epidemic is continually evolving. Various aspects of the epidemic may change from time to time as scientific and medical knowledge of the epidemic progresses. These changes may necessitate changes in this policy. The policy should accordingly be reviewed regularly and adapted to changed circumstances.

Annexure "A"

UNIVERSAL PRECAUTIONS

1. Blood, especially in large spills such as from nosebleeds, and old blood or bloodstains, should be handled with extreme caution. Skin accidentally exposed to blood should be washed immediately with soap and running water. All bleeding wounds, sores, breaks in the skin, grazes and open skin lesions should ideally be cleaned immediately with running water and/or other antiseptics. If there is a biting or scratching incident where the skin is broken, the wound should be washed and cleaned under running water, dried, treated with antiseptic and covered with a waterproof dressing. Blood splashes to the face (mucous membranes of eyes, nose or mouth) should be flushed with running water for at least three minutes.

2. Disposable bags or incinerators must be made available to dispose of sanitary wear.

3. All open wounds, sores, breaks in the skin, grazes and open skin lesions should be covered completely and securely at all times with a non-porous or waterproof dressing or plaster so that there is no risk of exposure to blood.

4. Cleaning and washing should always be done with running water and not in containers of water. Where running tap water is not available, containers should be used to pour water over the area to be cleaned. Educational institutions without running water should keep a supply on hand specifically for use in emergencies (for instance, in a 25-litre drum). This water can be kept fresh for a long period of time by adding a disinfectant, such as Milton, to it.

5. All persons should wear protective latex gloves or plastic bags over their hands when attending to blood spills, open wounds, sores, breaks in the skin, grazes, open skin lesions, body fluids and excretions. Doing this will effectively eliminate the risk of HIV transmission. Bleeding can be managed by compression with material that will absorb the blood (for instance, a towel).

6. If a surface has been contaminated with body fluids and excretions which could include some blood (for instance tears, saliva, mucus, phlegm, urine, vomit, faeces and pus), that surface should be cleaned with running water and household bleach (1:10 solution) using paper or disposable cloths. The person doing the cleaning must wear protective gloves or plastic bags over their hands.

7. Blood-contaminated material should be sealed in a plastic bag and incinerated or sent to an appropriate disposal firm. Tissues and toilet paper can be flushed down a toilet.

8. If instruments (for instance scissors) become contaminated with blood or other body fluids, they should be washed and placed in a household bleach solution for at least one hour before drying and re-using.

9. Needles and syringes should be safely disposed of and not re-used.

RECOMMENDED CONTENT OF FIRST AID KITS:

- two large and two medium pairs of disposable latex gloves
- two large and two medium pairs of household rubber gloves (for handling blood-soaked material in specific instances such as when broken glass makes the use of latex gloves inappropriate)
- absorbent material
- waterproof plasters
- disinfectant (such as hypo chloride)
- scissors
- cotton wool
- gauze tape
- tissues
- water containers
- resuscitation mouthpiece or similar device with which mouth-to-mouth resuscitation can be applied without any contact being made with blood or other body fluids
- protective eye wear
- protective facemask to cover nose and mouth.
ALTERNATIVES:
The universal precautions help prevent contact with blood and other body fluids. Less sophisticated items than those described above can also be used, such as:

- unbroken plastic bags on hands where latex or rubber gloves are not available
- common household bleach for use as disinfectant (diluted one part bleach to ten parts water [1:10 solution])
- spectacles instead of protective eye wear
- a scarf instead of a protective face mask.

Used items should be dealt with as indicated in paragraphs 7 to 9 above.

CONTENT OF HIV AND AIDS EDUCATION PROGRAMMES

The content of HIV and AIDS education programmes should include the following:

1. providing information on HIV and AIDS and developing the life skills necessary, including decision making regarding sexual and social behaviour, for the prevention of HIV transmission;

2. teaching basic first-aid principles from an early age, including how to deal with bleeding and other necessary safety precautions;

3. emphasising the role of drugs, sexual abuse, violence, and sexually transmitted diseases (STDs) in the transmission of HIV, and empowering learners to deal with these situations;

4. encouraging learners and students to make use of health care, counselling and support services offered by the health clinics, educational institutions, community service organisations and other disciplines (including services related to reproductive health care and the prevention and treatment of sexually transmitted diseases);

5. teaching learners and students how to behave towards persons with HIV and AIDS, raising awareness about prejudice and stereotypes concerning HIV and AIDS;

6. cultivating an enabling environment and a culture of non-discrimination towards persons with HIV and AIDS;

7. providing information on appropriate prevention and avoidance measures. Such measures should include abstinence from sexual intercourse, the use of condoms, faithfulness to one’s partner, obtaining prompt medical treatment for sexually transmitted diseases and tuberculosis (TB), avoiding traumatic contact with blood, and the application of universal precautions; and

8. providing information on living positively with HIV and AIDS and on caring for family members who are living with HIV or AIDS.

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APPENDIX B

ORIGINAL SURVEY INSTRUMENT
The following questions focus on HIV and AIDS knowledge. Please indicate to the best of your knowledge, if the following statements are (1) true or (2) false by circling the number of the answer. If you are not sure of the correct answer, circle (3) to indicate not sure.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>1. AIDS is an infectious disease caused by bacteria.</strong></td>
<td>T</td>
<td>F</td>
</tr>
<tr>
<td><strong>2. AIDS breaks down the body’s immunity by destroying the B cells in the endocrine system.</strong></td>
<td>T</td>
<td>F</td>
</tr>
<tr>
<td><strong>3. AIDS can damage the brain.</strong></td>
<td>T</td>
<td>F</td>
</tr>
<tr>
<td><strong>4. It may be more than 5 years before an HIV-infected person develops AIDS.</strong></td>
<td>T</td>
<td>F</td>
</tr>
<tr>
<td><strong>5. HIV lives and functions in warm, moist environments for days outside of the body.</strong></td>
<td>T</td>
<td>F</td>
</tr>
<tr>
<td><strong>6. Early symptoms of HIV infection include fatigue, fever, weight loss, and swelling of the lymph nodes.</strong></td>
<td>T</td>
<td>F</td>
</tr>
<tr>
<td><strong>7. A person who has tested negatively on one HIV antibody blood test could still transmit HIV to a sexual partner.</strong></td>
<td>T</td>
<td>F</td>
</tr>
<tr>
<td><strong>8. The number of HIV-infected person will be decreasing during the next two years.</strong></td>
<td>T</td>
<td>F</td>
</tr>
<tr>
<td><strong>9. Two common disorders found in persons with AIDS are pneumocystis carinii pneumonia and Kaposi's sarcoma.</strong></td>
<td>T</td>
<td>F</td>
</tr>
<tr>
<td><strong>10. Latex condoms are not as effective as &quot;lambskin&quot; or natural membrane condoms in preventing the spread of HIV.</strong></td>
<td>T</td>
<td>F</td>
</tr>
<tr>
<td><strong>11. Drugs can be used to slow down the rate of reproduction of HIV and lengthen the life of an infected person.</strong></td>
<td>T</td>
<td>F</td>
</tr>
<tr>
<td><strong>12. It is possible to detect HIV antibodies in the bloodstream immediately after becoming infected.</strong></td>
<td>T</td>
<td>F</td>
</tr>
<tr>
<td><strong>13. There is a vaccine available in Europe that can protect a person from getting AIDS.</strong></td>
<td>T</td>
<td>F</td>
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</tbody>
</table>
14. There have been no cases of AIDS spread by students to their teachers or classmates through usual daily contact. | T | F | NS

15. In recent years, adolescents are among the groups with the largest increase of HIV infection. | T | F | NS

16. Less than one-half of the states have mandated that AIDS education be included in their schools' curricula. | T | F | NS

17. There is a federal law that protects children with HIV or AIDS from educational discrimination. | T | F | NS

18. There is no cure for AIDS at the present time. | T | F | NS

The following questions focus on HIV and AIDS transmission. To what degree do you think the following are likely to transmit HIV? Please circle the corresponding number for your answers.

<table>
<thead>
<tr>
<th>VL = Very Likely</th>
<th>SL = Somewhat Likely</th>
<th>SU = Somewhat Unlikely</th>
<th>VU = Very Unlikely</th>
<th>DNP = Definitely Not Possible</th>
<th>DK = Don’t Know</th>
</tr>
</thead>
</table>

| 19. Working near someone with AIDS. | VL SL SU VU DNP DK |
| 20. HIV-infected mother to baby during pregnancy/birth. | VL SL SU VU DNP DK |
| 21. Kissing someone who has AIDS. | VL SL SU VU DNP DK |
| 22. Eating in a restaurant where the cook has AIDS. | VL SL SU VU DNP DK |
| 23. Receiving a blood transfusion. | VL SL SU VU DNP DK |
| 24. Sharing plates, forks, or glasses with someone who has AIDS. | VL SL SU VU DNP DK |
| 25. Living with a person who has AIDS (without sexual involvement). | VL SL SU VU DNP DK |
| 26. Donating blood. | VL SL SU VU DNP DK |

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27. Sharing needles for drug use with someone who has AIDS.  

How likely do you think the following situations are in transmitting HIV? Please circle your answers.

<p>| | | | | | |</p>
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<tr>
<td>28. Mosquito bites.</td>
<td>VL SL SU VU DNP DK</td>
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<td>29. HIV-infected mother to baby through nursing.</td>
<td>VL SL SU VU DNP DK</td>
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<tr>
<td>30. Receiving anal intercourse from an HIV-infected person without using a condom.</td>
<td>VL SL SU VU DNP DK</td>
<td></td>
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<tr>
<td>31. Receiving anal intercourse from an HIV-infected person with using a condom.</td>
<td>VL SL SU VU DNP DK</td>
<td></td>
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<tr>
<td>32. Having sexual intercourse with an HIV-infected person without using a condom.</td>
<td>VL SL SU VU DNP DK</td>
<td></td>
<td></td>
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<tr>
<td>33. Having sexual intercourse with an HIV-infected person with using a condom.</td>
<td>VL SL SU VU DNP DK</td>
<td></td>
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<tr>
<td>34. Performing oral sex on an HIV-infected man without using a condom.</td>
<td>VL SL SU VU DNP DK</td>
<td></td>
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<tr>
<td>35. Performing oral sex on an HIV-infected woman using a dental dam.</td>
<td>VL SL SU VU DNP DK</td>
<td></td>
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</table>

The following statements reflect attitudes about HIV and AIDS. Circle the number that best describes your reaction to each statement.

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<table>
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<tbody>
<tr>
<td>SA = Strongly Agree</td>
<td>A = Agree</td>
<td>U = Uncertain</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D = Disagree</td>
<td>SD = Strongly Disagree</td>
<td></td>
<td></td>
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</table>

36. I believe I have enough information about HIV/AIDS to protect myself in my social life.  

37. I worry about possible casual contact with a person with AIDS.
<p>| | | | | |</p>
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<tbody>
<tr>
<td>38. Activities that spread HIV, such as some forms of sexual behavior, should be illegal.</td>
<td>SA A U D SD</td>
<td></td>
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<tr>
<td>39. I feel uncomfortable when coming in contact with gay men because of the risk that they may have AIDS.</td>
<td>SA A U D SD</td>
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</tr>
<tr>
<td>40. I believe I have enough information about HIV/AIDS to protect myself in my future work setting.</td>
<td>SA A U D SD</td>
<td></td>
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</tr>
<tr>
<td>41. Persons with AIDS are responsible for getting their illness.</td>
<td>SA A U D SD</td>
<td></td>
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<tr>
<td>42. Civil rights laws should be enacted/enforced to protect people with AIDS from job and housing discrimination.</td>
<td>SA A U D SD</td>
<td></td>
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<tr>
<td>43. Male homosexuality is obscene and vulgar.</td>
<td>SA A U D SD</td>
<td></td>
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<tr>
<td>44. HIV antibody blood test results should be confidential to avoid discrimination against people with positive results.</td>
<td>SA A U D SD</td>
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<tr>
<td>45. I feel that more time should be spent teaching future teachers about HIV/AIDS in their college courses.</td>
<td>SA A U D SD</td>
<td></td>
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<tr>
<td>46. I feel disgusted when I consider the state of sinfulness of male homosexuality.</td>
<td>SA A U D SD</td>
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<tr>
<td>47. I would quit my job before I would work with someone who has AIDS.</td>
<td>SA A U D SD</td>
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<tr>
<td>48. People should not blame homosexual community for the spread of AIDS in the US.</td>
<td>SA A U D SD</td>
<td></td>
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<tr>
<td>49. AIDS is a punishment for immoral behavior.</td>
<td>SA A U D SD</td>
<td></td>
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</tr>
<tr>
<td>50. I feel secure that I have reduced all risks of personally contracting HIV.</td>
<td>SA A U D SD</td>
<td></td>
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</tr>
<tr>
<td>51. I think all children should be tested for HIV before entering school.</td>
<td>SA A U D SD</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>52. I believe it is the regular elementary classroom teacher's responsibility to teach AIDS education.</td>
<td>SA A U D SD</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
53. In my opinion, parents of all students in the class should be notified if there is a student with HIV or AIDS in the class.

54. I feel that all school personnel who have direct contact with a student with HIV or AIDS should be notified.

55. I think that students with HIV or AIDS should be allowed to fully participate in the day-to-day activities of the regular classroom.

56. I would support including AIDS education in the curriculum in a school where I was teaching.

57. A teacher with HIV or AIDS should be allowed to continue teaching.

58. It scares me to think that I may have a student with HIV or AIDS in my classroom.

59. I believe that teachers should have the right to refuse to have students with HIV or AIDS in their classroom.

60. I feel that I could comfortably answer students' questions about HIV/AIDS.

The following questions are related to the Ministry of Education's HIV/AIDS National Policy. Please circle your answer by either circling YES or NO.

<table>
<thead>
<tr>
<th>Question</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>61. As a principal, I am aware of the Ministry of Education's National Policy on HIV/AIDS.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>62. As a principal, I have received a copy of the Ministries of Education's National Policy.</td>
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<tr>
<td>63. As a principal, I have attended some workshops by the Ministry of Education to better understand the content of the National Policy of HIV/AIDS.</td>
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<tr>
<td>64. As a principal, are you aware of any orientation meeting or workshop that the Ministry of Basic Education conducted to share the content of the policy with you.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Question</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>65. After you received the policy, was there any type of follow up from the Ministry of Basic Education regarding the content and implementation process of the National Policy?</td>
<td></td>
<td></td>
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<tr>
<td>66. Did any representative from the Ministry of Basic Education visit your school to observe the implementation process of the policy?</td>
<td></td>
<td></td>
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<tr>
<td>67. Did you as a principal conduct any kind of orientation meeting or workshop for your teachers to convey to them the content of the National Policy on HIV/AIDS?</td>
<td></td>
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</tr>
<tr>
<td>68. As a principal are you required to provide any type of report to the Ministry of Basic Education’s office in relation to the implementation process of the policy?</td>
<td></td>
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<tr>
<td>69. As a principal, have you developed an HIV/AIDS implementation plan for your school?</td>
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<td></td>
</tr>
<tr>
<td>70. As a principal, have you established an HIV/AIDS Advisory Committee as the policy recommends?</td>
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</table>

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APPENDIX C

MODIFIED SURVEY INSTRUMENT
Dear School Principal

HIV/AIDS has reached epidemic proportions in Namibia. According to researchers AIDS is the number one killer in Namibia. Educational programs have been identified as the best defense against HIV/AIDS in the absence of a vaccine or medical cure. Schools must be part of the efforts to control and eventually stop the spread of this epidemic. Namibian Ministries of Education has formulated a National Policy that gives schools mandate to establish multi-sectoral committees that need to address issues of HIV/AIDS. School principals as leaders in their school buildings and thus should play a key role in accomplishing this task. But little is known about school principals and HIV/AIDS. Clearly, there is a need to create a pool of data concerning this problem.

Because you are a school principal in Namibia, you have been selected from a sample of your colleagues to participate in this study. I am asking for your assistance in this project concerning what you know, feel and do about issues related to HIV/AIDS and schools. Your participation is valuable. If you choose to participate in this study, you will be asked to complete a questionnaire on HIV/AIDS that also includes a demographic sheet. The results of this survey are completely voluntary and deeply appreciated. As a result of this participating in this project, you may become more aware about HIV/AIDS related issues and how vital your role as a school principal is in the educational process of addressing HIV/AIDS. There are no health or safety risks from participating in this study. Further, there is no financial compensation for injury from participating in this study available.

The answers you provide are completely confidential. Though some of your responses may appear in my final dissertation, your identity will not be revealed in my dissertation or any other writings/publications related to the research. The identification number located on the upper right hand corner of the questionnaire is only used for mailing purposes. This is so that we may check your school name off of the mailing list when your questionnaire is returned. Do not put your name on the questionnaire.
Again, this is a voluntary participation project. You are free to refuse to participate in the study and may withdraw at any time without penalty. I hope that you will choose to take part in this valuable research project, which is being conducted under the direction of Dr. Victoria Robinson at the University of Northern Iowa, USA. It will take about 15-20 minutes to complete and return the questionnaire. A prepaid envelope is enclosed for your convenience.

If you have any questions about this project, please feel free to contact me through email at: shamanis@uni.edu or through telephone (319) 273-3028. After the first week of May 2004 you can reach me in Namibia at 061-247422. This project has been approved by the University of Northern Iowa’s Human Subject review Committee. If you have any questions about research regulations, please email or call Dr. David Walker either at david.walker@uni.edu or (319) 273-6148.

Your cooperation is greatly appreciated in this matter and is very beneficial to the completion of this project.

Thank you for your time and assistance with this study.

Shamani-Jeffrey Shikwambi, Doctoral Candidate
University of Northern Iowa
The following questions focus on HIV and AIDS knowledge. Please indicate to the best of your knowledge, if the following statements are (1) true or (2) false by circling the number of the answer. If you are not sure of the correct answer, circle (3) to indicate not sure.

<table>
<thead>
<tr>
<th></th>
<th>T = True</th>
<th>F = False</th>
<th>NS = Not Sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>T</td>
<td>F</td>
<td>NS</td>
</tr>
<tr>
<td>2.</td>
<td>T</td>
<td>F</td>
<td>NS</td>
</tr>
<tr>
<td>3.</td>
<td>T</td>
<td>F</td>
<td>NS</td>
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<tr>
<td>4.</td>
<td>T</td>
<td>F</td>
<td>NS</td>
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<td>5.</td>
<td>T</td>
<td>F</td>
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<td>6.</td>
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<td>7.</td>
<td>T</td>
<td>F</td>
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<td>8.</td>
<td>T</td>
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<td>9.</td>
<td>T</td>
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<td>10.</td>
<td>T</td>
<td>F</td>
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<tr>
<td>11.</td>
<td>T</td>
<td>F</td>
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<td>12.</td>
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<tr>
<td>13.</td>
<td>T</td>
<td>F</td>
<td>NS</td>
</tr>
</tbody>
</table>
14. There have been no cases of AIDS spread by students to their teachers or classmates through usual daily contact. 

15. In recent years, adolescents are among the groups with the largest increase of HIV infection. 

16. The Ministry of Basic Education has mandated that AIDS education be included in their schools' curricula. 

17. There is a law that protects children with HIV or AIDS from educational discrimination. 

18. There is no cure for AIDS at the present time. 

The following questions focus on HIV and AIDS transmission. To what degree do you think the following are likely to transmit HIV? Please circle the corresponding number for your answers.

<table>
<thead>
<tr>
<th>VL = Very Likely</th>
<th>SL = Somewhat Likely</th>
<th>SU = Somewhat Unlikely</th>
<th>VU = Very Unlikely</th>
<th>DNP = Definitely Not Possible</th>
<th>DK = Don't Know</th>
</tr>
</thead>
</table>

19. Working near someone with AIDS. 

20. HIV-infected mother to baby during pregnancy/birth. 

21. Kissing someone who has AIDS. 

22. Eating in a restaurant where the cook has AIDS. 

23. Receiving a blood transfusion. 

24. Sharing plates, forks, or glasses with someone who has AIDS. 

25. Living with a person who has AIDS (without sexual involvement).
27. Sharing needles for drug use with someone who has AIDS.

How likely do you think the following situations are in transmitting HIV? Please circle your answers.

28. Mosquito bites.  
29. HIV-infected mother to baby through nursing.  
30. Receiving anal intercourse from an HIV-infected person without using a condom.  
31. Receiving anal intercourse from an HIV-infected person with using a condom.  
32. Having sexual intercourse with an HIV-infected person without using a condom.  
33. Having sexual intercourse with an HIV-infected person with using a condom.  
34. Performing oral sex on an HIV-infected man without using a condom.  
35. Performing oral sex on an HIV-infected woman using a dental dam.

The following statements reflect attitudes about HIV and AIDS. Circle the number that best describes your reaction to each statement.

<table>
<thead>
<tr>
<th>SA = Strongly Agree</th>
<th>A = Agree</th>
<th>U = Uncertain</th>
</tr>
</thead>
<tbody>
<tr>
<td>D = Disagree</td>
<td>SD = Strongly Disagree</td>
<td></td>
</tr>
</tbody>
</table>

36. I believe I have enough information about HIV/AIDS to protect myself in my social life.
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>37. I worry about possible casual contact with a person with AIDS.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>38. Activities that spread HIV, such as some forms of sexual behavior, should be illegal.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>39. I feel uncomfortable when coming in contact with gay men because of the risk that they may have AIDS.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>40. I believe I have enough information about HIV/AIDS to protect myself in my work setting.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>41. Persons with AIDS are responsible for getting their illness.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>42. Laws should be enacted/enforced to protect people with AIDS from job and housing discrimination.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>43. Homosexuality is the leading source of HIV/AIDS epidemic in our country.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>44. HIV antibody blood test results should be confidential to avoid discrimination against people with positive results.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>45. I feel that more time should be spent teaching future teachers about HIV/AIDS in their university/college courses.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>46. Heterosexuality is the leading source of the HIV/AIDS epidemic in our country.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>47. I would quit my job before I would work with someone who has AIDS.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>48. People should not blame homosexual community for the spread of HIV/AIDS in our country.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>49. AIDS is a punishment for immoral behavior.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>50. I feel secure that I have reduced all risks of personally contracting HIV.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>51. I think all children should be tested for HIV before entering school.</td>
<td>SA A U D SD</td>
</tr>
<tr>
<td>52. I believe it is the elementary classroom teacher's responsibility to teach AIDS education.</td>
<td>SA A U D SD</td>
</tr>
</tbody>
</table>
53. In my opinion, parents of all students in the class should be notified if there is a student with HIV or AIDS in the class.  
SA A U D SD

54. I feel that all school personnel who have direct contact with a student with HIV or AIDS should be notified.  
SA A U D SD

55. I think that students with HIV or AIDS should be allowed to fully participate in the day-to-day activities of the regular classroom.  
SA A U D SD

56. I would support including AIDS education in the curriculum in a school where I am the principal.  
SA A U D SD

57. A teacher with HIV or AIDS should be allowed to continue teaching.  
SA A U D SD

58. It scares me to think that I may have a student with HIV or AIDS in my school.  
SA A U D SD

59. I believe that teachers should have the right to refuse to have students with HIV or AIDS in their classroom.  
SA A U D SD

60. I feel that I could comfortably answer students' questions about HIV/AIDS.  
SA A U D SD

The following questions are related to the Ministry of Education's HIV/AIDS National Policy. Please circle your answer by either circling YES or NO.

<table>
<thead>
<tr>
<th>Question</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>61. As a principal, I am aware of the Ministry of Education’s National Policy on HIV/AIDS.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>62. As a principal, I have received a copy of the Ministries of Education’s National Policy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>63. As a principal, I have attended some workshops by the Ministry of Education to better understand the content of the National Policy of HIV/AIDS.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>64. As a principal, are you aware of any orientation meeting or workshop that the Ministry of Basic Education conducted to share the content of the policy with you.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
65. After you received the policy, was there any type of follow up from the Ministry of Basic Education regarding the content and implementation process of the National Policy?  

| YES | NO |
--- | --- |

66. Did any representative from the Ministry of Basic Education visit your school to observe the implementation process of the policy?  

| YES | NO |
--- | --- |

67. Did you as a principal conduct any kind of orientation meeting or workshop for your teachers to convey to them the content of the National Policy on HIV/AIDS?  

| YES | NO |
--- | --- |

68. As a principal are you required to provide any type of report to the Ministry of Basic Education’s office in relation to the implementation process of the policy?  

| YES | NO |
--- | --- |

69. As a principal, have you developed an HIV/AIDS implementation plan for your school?  

| YES | NO |
--- | --- |

70. As a principal, have you established an HIV/AIDS Advisory Committee as the policy recommends?  

| YES | NO |
--- | --- |

### Demographic Section

1. What is your gender?  
   - _Male_  _Female_

2. What is your age?  
   
   - _25-35_  _36-45_  _46-55_  _56-65_  _66+_  

3. What is your highest academic qualification:  
   - _BA/BS_  
   - _MA/MS_  
   - _Ed.D. /Ph.D_  
   - _Other_ (Please specify)

4. What is your Racial/Ethnic Classification?  
   - _White_  _Black_  _Colored_  _Other_ (Please specify)

5. How many years have you been a principal?  
   - _Years_ (Fill in)
6. What grade level school are you a principal of?
   ___Elementary    ___Primary High
   ___Secondary     ___Combined (Specify grade levels)

7. What kind of school are you a principal at?
   ___Public school (government affiliated)
   ___Private school (church/religiously affiliated)
   ___Private school (not religiously affiliated)

8. In what region of the country is your school located
   ___Caprivi        ___Oshangwena
   ___Erongo        ___Omaheke
   ___Hardap        ___Omusati
   ___Karas         ___Oshana
   ___Kavango       ___Oshikoto
   ___Khomus        ___Otjozondjupa
   ___Kunene

9. How will you describe the location of your school?
   ___Urban
   ___Small town
   ___Rural
If you would be willing to spend an hour with me to discuss this topic, please complete this form by filling in your name and contact information below. Upon receiving this information from you, I will personally contact you to set up a time that will work best for you. Thank you!

Name: ........................................
School: ........................................
Address: ........................................
Telephone: .....................................
Fax: ............................................
Email: .........................................

Address in the United States of America:
Shamani-Jeffrey Shikwambi
Doctoral Candidate
University of Northern Iowa
Department of Educational Leadership
Schindler Education Center (SEC 0640)
Cedar Falls, Iowa 50614
Tel: 319-273-3028
Fax: 319-273-7732
shamanis@uni.edu

Address in Namibia (from May till August 10, 2004):
Shamani-Jeffrey Shikwambi
Doctoral Candidate
C/o National Early Childhood Dev. NGO Association
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Windhoek, Namibia
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Fax: 061-247244
Email: shamanis@uni.edu
APPENDIX D

INTERVIEW PROTOCOL
Name: Date:
Time:

Interview Procedure

1. Thank the participant for their willingness and time to be interviewed.
   - Thank you very much for meeting with me
   - I appreciate your willingness to participate in this interview

2. Ask permission to tape record the interview.
   - I have a tape recorder with me and I am wondering if it is all right with you if I tape this interview.
   - Would you allow me to record this interview so that I can obtain as much information as needed?

3. Assure the participant about confidentiality of their identity and also the information provided.
   - To ensure the confidentiality of this interview your name or the name of your school won’t be identified in the dissertation project.
   - Everything that might be used to identify you as a source of information will be kept confidential.

4. I will start asking questions now and will prompt you for more information as needed.

Interview Questions:

I Ministerial Policy: From Ministry to Principal

Question 1: Are you aware of the Ministries’ National Policy on HIV/AIDS? If yes, how did you receive a copy of the National Policy? If no, how come you are not aware of this document as a school principal?
Question 2: Did the Ministry conduct any orientation or workshop about the policy?

Prompts: Describe the training.  
What did the training entail?  
How long was the training?  
Who conducted the training?  
Where was the training held?

Question 3: Was there any follow up from the Ministry after receiving the policy or the training?

Prompts: Anyone came to your school to observe the implementation of the policy?

Question 4: Who is responsible in the Ministry to make sure this policy is implemented in practice in your school?

Prompts: Do you know the name of the individual?  
How does she/he do that?

Question 5: How was the content of the policy conveyed to your colleagues? Did you hold training for your faculty? How long? Any follow up after that?

Question 6: How was the content of the policy conveying to students? Parents? Other institutional affiliates?

Question 7: How are you as a principal held accountable by the Ministry that you fully/or partially have implemented the policy?

Prompts: Do you provide any type of report in relation to the implementation process?  
To whom if any?  
Any forms you have to fill out?  
Can I see a copy please?

II From Principal to School Stakeholders: Teachers; Students; Parents; etc.

Question 8: What strategy is in place in your building to cope with and reduce the impact of the epidemic?
Question 9: What methods have you implemented to help parents/caregivers provide their children with sexual health (including sexuality) education and guidance regarding sexual abstinence?

Question 10: What is the sexual harassment policy of your school?

Prompts: Can I see a copy?
         How is it shared?
         How is it conveyed to every member of your school community?
         When violated what mechanisms are in place?

Question 11: What mechanism is in place to educate students about their rights concerning their own bodies, to protect themselves against rape and violence?

Prompts: How are their confidentiality protected if their rights have been violated?

Question 12: The policy calls for all educators to be trained so that they give guidance about sexual health and HIV/AIDS. How many of your colleagues are trained in this regard?

Prompts: By whom?
         For how long?
         What was the nature of the training?

Question 13: Have you developed a HIV implementation plan for your school?

Prompts: In consultation with whom?
         Do you have a copy to share with me?

III Challenges in the Implementation Process

Question 14: Have you established a HIV/AIDS Advisory Committee as the policy calls?
Prompts: Who serve on that?
How were they elected?
For how long?
What are the responsibilities of the committee?
How has it worked for you and your school?

Question 15: In your opinion what are the major components of the policy?

Question 16: What have been the challenges for you in the implementation of this policy?

Question 17: What resources/help do you need to fully implement the policy?

Question 18: What is your personal strength that has aid in the implementation of the policy?

Question 19: Are you aware of any weaknesses you may posses that are hampering the implementation process and will like help in those areas?

At this stage thank the participant for their valuable time. Share with them that a transcript copy of the interview will be shared with them to verify the accuracy of the information.
APPENDIX E

PERMISSION TO CONDUCT STUDY GRANTED BY UNIVERSITY OF NORTHERN IOWA HUMAN PARTICIPANTS REVIEW COMMITTEE
Date: March 20, 2004

To: Shamani-Jeffrey Shikwambi
   Educational Leadership, 0604

From: Dr. Mary E. Losch, Chair
   UNI Human Participants Review Committee
   (Institutional Review Board)

Title: Namibia Principals' Knowledge and Attitudes towards HIV/AIDS and their compliance with the Ministries' National Policy

Re: ID# 03-0182

Your project “Namibia Principals' Knowledge and Attitudes towards HIV/AIDS and their compliance with the Ministries' National Policy,” has been deemed minimal risk and reviewed by the IRB through the expedited review procedure authorized by 45 CFR 46.110. For your project, the applicable expedited category referenced in 45 CFR 46.110 of the federal regulations is:

Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

You may begin enrolling human research participants in your project. If you modify your project in a way that increases the physical, emotional, social, or legal risk to the participants or you change the targeted participants, you should notify the Human Participants Review Committee in the Graduate College Office before continuing with the research. Additionally, your project must be reviewed annually. You will receive a notification and continuing review form approximately 10 months from now asking for an update on your project. If you complete the project before that time, please complete a project closure form (available at http://www.grad.uni.edu/research/ClosureForm.doc) and submit it to the Human Participants Office.

If you have any further questions about the Human Participants Review policies or procedures, please contact me at mary.losch@uni.edu or David Walker, the Human Participants Committee Administrator, at 319.273.6148 or email david.walker@uni.edu. Best wishes for your project success.

cc: Institutional Review Board
   Victoria Robinson
APPENDIX F

PERMISSION TO CONDUCT STUDY GRANTED BY THE MINISTRY OF BASIC EDUCATION, SPORT AND CULTURE

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The Dean of Faculty  
University of Northern Iowa  
Education Leadership, Post. Sec & Counselling  
Schindler Education Center (SEC 064)  
Cedar Falls, Iowa 50614

Dear Professor

SUBJECT: ACKNOWLEDGEMENT OF RESEARCH PLAN FOR  
SHAMANI-JEFFREY SHIKWAMBI - DOCTORAL CANDIDATE

It is with great pleasure that I am writing this letter to acknowledge Shamani-Jeffrey Shikwambi’s plan to come to Namibia and do research for his dissertation.

There is no question that HIV/AIDS have become the leading cause of death around the world and our nation Namibia is not an exception. All the good efforts and our country's investment in the Education Sector that are addressing quality and accessible education for all, have been hampered by the adverse effects of the HIV/AIDS epidemic on the sector. In this light, we would render our support to Mr. Shamani-Jeffrey Shikwambi in undertaking his dissertation research work with our Ministries that are responsible for the education sector.

It is my understanding that the information gained from the survey and interview will be used in his dissertation entitled: Namibia Principals' Knowledge and Attitudes towards HIV/AIDS and their compliance with the Ministries' National Policy. It is our wish that the information gathered will be shared with the Ministries of Education, as we continue to find working solution to address the HIV/AIDS epidemic in our schools.

Should you require further information, please do not hesitate to contact my office.
Yours Faithfully

Loini-Nyanyukweni Katoma
Permanent Secretary
APPENDIX G

LETTER ACCOMPANYING THE SURVEY FROM THE PERMANENT SECRETARY'S OFFICE
The Directors
MBESC Regional Offices
For Attention: School Principals

Dear School Principals

Subject: Request to complete a questionnaire about HIV knowledge and attitudes

Enclosed is a questionnaire about HIV knowledge and attitudes from Shamani-Jeffrey Shikwambi, who is currently doing his doctoral work at the University of Northern Iowa in the United States of America. Since this is a worthwhile research topic and Mr. Shikwambi should have 100% participation for his research to be valid, we recommend you participate in this venture.

Mr. Shikwambi's project is an addition to the body of knowledge that will be useful to us in education. We do encourage your prompt response so that his research project will be successful. This survey document needs to be returned to the researcher the latest by June 9th, 2004.

Thank you for your cooperation in this effort.

Sincerely,

Loini-Nyanyukweni Katoma
Permanent Secretary