ALIGNMENT OF A COMPANY’S POLICIES
AND PROGRAMMEES TO RESPOND
TO THE HIV/AIDS PANDEMIC

NIRESH SEETAL
200283082

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Graduate School of Business, Faculty of Management
University of Natal, Durban.

SUPERVISOR: PROFESSOR ELZA THOMSON

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TO WHOM IT MAY CONCERN

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ACKNOWLEDGEMENTS

The road to this destination has been a long, arduous and challenging one with many hours of sacrifice from my family. There can be no words to describe the appreciation I have for the constant support and inspiration I have received from the following people:

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ABSTRACT

The HIV/AIDS epidemic affects everyone, every individual, every family, every social institution, every organisation and indeed every business, big or small. Although there are indications that HIV infection may be spreading faster among the underprivileged sectors of the population (poor, marginalised, uneducated, etc.), so far the toll among the urban young adult population has been higher. In South Africa it is estimated that as many as 1 000 people, mostly young people, are infected every day.

The HIV/AIDS epidemic poses one of the greatest challenges to business development in Africa. The epidemic claims some of the best business leaders, managers and a great number of workers at all levels of the production system. HIV-related absenteeism, loss of productivity and the cost of replacing workers lost to AIDS threaten the survival of a number of businesses and industrial sectors in the increasingly competitive world market. HIV/AIDS does not affect only workers. By claiming a large part of the urban population with disposable income and by impoverishing families and communities, it also effects the market base of African business.

It is clear that no one sector alone can make a significant inroad in the fight against the epidemic. A true partnership involving the government, the private sector and the community is essential to face the problem. The business community is realising that its very survival depends on how effectively it joins forces with other partners, how well it understands the legal issues, current statistics and economic impact of HIV/AIDS to face the problem. The workplace provides an excellent environment to implement a comprehensive HIV/AIDS programme and policy reform.
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<td>ACTG</td>
<td>Aids Clinical Trial Group</td>
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<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
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<td>APR</td>
<td>Asia Pacific Region</td>
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<td>BCEA</td>
<td>Basic Conditions of Employment Act</td>
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<td>CBA</td>
<td>Cost Benefit Analysis</td>
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<td>CCMA</td>
<td>Commission for Conciliation, Mediation and Arbitration</td>
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<td>CD4</td>
<td>Cluster Designation 4</td>
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<td>CDC</td>
<td>Centre for Disease Control</td>
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<td>Cost Effectiveness Analysis</td>
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<td>Compensation for Occupational Injuries Diseases Act</td>
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<td>CUA</td>
<td>Cost Utility Analysis</td>
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<td>DALY</td>
<td>Disability Adjusted Life Years</td>
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<td>DNA</td>
<td>Deoxyribonucleic Acid</td>
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<td>DOTS</td>
<td>Directly Observed Treatment, Short-Course</td>
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<td>DRC</td>
<td>Democratic Republic of Congo</td>
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<td>EC</td>
<td>Eastern Cape</td>
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<td>EEA</td>
<td>Employment Equity Act</td>
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<td>ER</td>
<td>European Region</td>
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<td>EU</td>
<td>European Union</td>
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<td>FS</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GP</td>
<td>Glycoprotein</td>
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<td>Human Immunodeficiency Virus</td>
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<td>KAP</td>
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<td>Kwa Zulu-Natal</td>
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<td>LAR</td>
<td>Latin American Region</td>
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<td>LTR</td>
<td>Long Terminal Repeat</td>
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<td>MRC</td>
<td>Medical Research Council</td>
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<td>MTCT</td>
<td>Mother to Child Transmission</td>
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<td>North American Region</td>
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<td>Northern Cape</td>
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<td>NGO</td>
<td>Non-Government Organisation</td>
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<td>National Intelligence Agency</td>
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<td>NPV</td>
<td>Net Present Value</td>
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<td>USA</td>
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<td>VTP</td>
<td>Vertical Transmission Prophylaxis</td>
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CHAPTER ONE – INTRODUCTION

1.1. INTRODUCTION

It is amazing how we have failed to accept and confront pestilences that threaten our lives and society timeously. HIV/AIDS typifies, with glaring clarity, how we as people, health departments, governments and businesses deal with life threatening challenges presented to us. Across Sub-Saharan Africa as the epidemic evolved, in the early 1980’s, from the emergence to dissemination and finally to escalation, the response has been the same as it spread from one country to another. It has been met with denial, ignorance, procrastination, xenophobia, discrimination and intellectual paralysis. The approach that we have taken thus far in dealing with this pandemic will be overwhelming, it will be a burden that will not easily be borne by a nation still consumed with the inequalities of the past.

This study commences with a biomedical description of HIV/AIDS; the structure, replication and transmission of the virus; and the progression from initial HIV infection to full blown AIDS. Thereafter discussion will focus on the current world-wide statistics. The discussion will commence with the global statistics, move to regional statistics and filter down to the KwaZulu province. Whilst providing the statistics an attempt will be made to highlight the major trends and modes of transmission of each region. This is important as it becomes the starting point of evaluating the suitability and effectiveness of any HIV/AIDS intervention programme.

Thereafter the economic impact of HIV/AIDS will be addressed. Household, Sectoral and Macro (National) Level economic impact will be investigated. Emphasis will be placed on:

- the loss of manpower and skills;
- changes in the population structure and the erosion of whole production and consumption bands, with consequent distortion of resource allocation due to changes in demand for goods and services; and
- deterioration in management capacity and governance.
The study then proceeds with a step-by-step guide through the law, looking at how it regulates the action of both employers and employees with reference to HIV/AIDS. The Constitution together with labour law as well as chosen case law, is discussed to give the reader an indication as to what law governs an employer’s and an employee’s actions, and the responsibilities borne by both.

Having established the main issues from a social, economic and legal perspective; an evaluation of Rohm and Haas New Germany’s HIV/AIDS policy and programmes will be undertaken. Strengths and weakness will be identified and recommendations proposed to suitably address the pandemic. Also offered is a detailed discussion on the steps to be undertaken to develop an effective intervention initiative that includes both the company’s policy and programmes.

1.2. BACKGROUND

As of 2002, more than 28 million Africans are living with HIV. Africa is suffering in every sector, from the health of its citizens to the economies of its nations. Workplaces in Africa feel the impact from both directions.

In Sub-Saharan Africa alone, 55 million deaths are expected between 2000 and 2020. “The average life expectancy in sub-Saharan Africa is currently 47 years. Without AIDS, it would have been 62 years.” “AIDS pushes people deeper into poverty as households lose their breadwinners, livelihoods are compromised and savings are consumed by the cost of health care and funerals” (UNAIDS).

“Labour productivity has been cut by up to 50% in the hardest-hit countries. In Zambia, nearly two-thirds of deaths among the managerial sector can be attributed to AIDS. By 2002, over 25% of the workforce may be lost to AIDS in some severely affected countries” (UNAIDS press release, 2002). “The vast majority of people living with HIV/AIDS worldwide are in the prime of their working lives. By 2005, Zimbabwe will have lost 19% of its workforce to AIDS, Botswana 17%, South Africa 11%, the United Republic of Tanzania 9% and Côte d’Ivoire 8%.
“AIDS weakens economic activity by squeezing productivity, adding costs, diverting productive resources, and depleting skills. The epidemic hits productivity mainly through increased absenteeism, organizational disruption, and the loss of skills and organizational memory. Production cycles can be disrupted, equipment stands idle, and temporary staff may need to be recruited and trained. A study in several southern African countries has estimated that the combined impact of AIDS-related absenteeism, productivity declines, health-care expenditures, and recruitment and training expenses could cut profits by at least 6-8%.

“Loss of know-how tends to be the most often-cited cost factor on the shop floor. Thus, even in high unemployment areas (with an apparently “bottomless” pool of unskilled or semi-skilled labour), the drain on visible and invisible skills and knowledge ends up being considerable” (UNAIDS, 2002).

Understanding the background of this pandemic, together with knowledge of the legal considerations and appropriate intervention programmes, managers will be equipped managers to take an active stance against the devastating effects of HIV/AIDS. While there are numerous cost studies to show the efficacy of these interventions to be a wise business investment it does not take any studies to know that managers must choose to do something.

Companies are recognizing that they have a significant role to play in HIV/AIDS prevention and care. Not only do they have an impetus to act because of the effects of HIV/AIDS on company financial health but also they have particular qualities that make them ideal to serve as a venue for education and behaviour change. Companies have a captive audience to listen to messages regarding HIV/AIDS, employees spend the majority of their day at work where they can see posters reminding them about STI treatment, and positive peer pressure and opened discussion among colleagues can influence behaviours. Employees with HIV/AIDS are living and working longer than ever before with improved nutrition and even treatment. As a result, the workplace has taken on a new role to reassure all employees as to their safety and to communicate intolerance of discrimination and stigmatisation of the HIV positive. At the same time,
with prevalence rates as high as 25% and higher in some companies, companies are mourning for their colleagues not just losing valuable skills. Employees are in need of care and counselling and to be empowered to cope with the epidemic. HIV/AIDS prevention is a dynamic process requiring constant and varied campaigns—a one-day employee seminar will not suffice to achieve what is required—a change in personal behaviour.

Some companies have made that wise choice to implement constant and varied campaigns, conducting HIV/AIDS awareness and prevention programmes for their employees and reinforcing them with activities in their communities. Some companies are considering approaches and still others may find the prospect overwhelming.

1.3. MOTIVATION OF THE STUDY

Whether an organization employs 30 people or 3,000 people, it will soon encounter HIV or AIDS at the workplace or in its community, if it has not already. Chances are that the disease will affect an employee or an employee’s family member. The organization should prepare to address this issue. With today’s medical treatments, people with HIV are living and working longer. For 50 percent of the people who have HIV, it will take more than 10 years to develop AIDS. With medical treatment, they can manage the infection as a chronic, long-term condition — similar to many other medical conditions.

That means people with HIV can work and lead productive lives. The numbers of people with HIV, and their extended life expectancy, will result in more employees on the job with HIV in the future. That could mean that someone you know — a client, a customer, a vendor, an employee, or an employee’s family member or close friend — is already coping with AIDS.

Employers need to know the applicable laws that provide protection for people with HIV or AIDS, or those perceived as having HIV or AIDS, from discrimination in employment practices. HIV/AIDS policies and education for the workplace can help to prevent such discrimination through education.
1.4. VALUE OF THE STUDY
Rohm and Haas New Germany is located at the epicentre of pandemic. Conducting this study will enable the organisation to better understand the impact the HIV/AIDS pandemic will have on the organisation and society. Furthermore by obtaining insight into the legal framework, the organisation can develop HIV/AIDS interventions that will be suitable and effective.

1.5. PROBLEM STATEMENT
To what extent are the company’s policies, procedures and programmes aligned to respond to the HIV/AIDS pandemic?
At the company what is the gap between the current and the most suitable policies, procedures and programmes to deal with the HIV/AIDS pandemic?

1.6. OBJECTIVES OF THE STUDY
This study attempts to tell the story behind the HIV/AIDS pandemic. At the conclusion of this examination it is intended to achieve the following objectives:
- To understand the basics of HIV/AIDS and the current statistical of the pandemic
- To determine the economic impact of HIV/AIDS
- To establish the legal issues pertaining to HIV/AIDS
- To establish a clear and concise understanding of Best Practices when developing a HIV/AIDS Policy and Intervention Programme.
- To make recommendations to R&H New Germany with regards to HIV/AIDS Policy and Intervention Programmes.

1.7. METHODOLOGY OF THE STUDY
The study is both qualitative in nature. The report draws on secondary data from the medical science field, the economics arena, legal fraternity, human resource specialists and prominent organizations and individuals involved with the HIV/AIDS pandemic. The discussions and data that has been presented, is currently very topical given the greater understanding organizations have developed with regards to mitigating the impact of HIV/AIDS by appropriate company responses. In any study of this nature it is impossible
to be sure of accuracy, and consequently there is a great reliance made on current reports from the press, medical, economic and human resource journals.

1.8. LIMITATIONS OF THE STUDY
The statistics concerning the HIV/AIDS projection for South Africa are based on the Doyle Model. Like all projections are some basic assumptions. The most central being that populations can be described in terms of their risk group profiles and categorized into mutually exclusive groups such as persons with high prevalence of STDs, persons at risk of infection and persons not at risk of infection and commercial sex workers and their clients.

An additional limitation was the refusal of the company's management to conduct a KAP (Knowledge, Attitudes and Perceptions) Survey. This survey would have added a quantitative dimension to the study and further fine tuned the recommendations that are made for HIV/AIDS intervention initiatives. Also it would have allowed a more critical evaluation of the company's current policy and programmes.

1.9. STRUCTURE OF THE STUDY
The study consists of five chapters. The contents is briefly described below.

Chapter One: Introduction
This chapter provides the outline of the main objectives of the study. It delineates the important and pertinent areas of the study and motivates for this specific investigation.

Chapter Two: HIV/AIDS Basics and Statistics
This chapter introduces the virus by describing its composition and replication cycle. Thereafter commentary is provided on the progression from HIV infection to full blown AIDS and the modes of transmission. Following this is an in-depth discussion on HIV/AIDS statistics. This aspect entails discussion on global trends, leading to specific regional statistics and features. Maps are included to visually depict the magnitude of the
epidemic. Analysis thereafter follows with specific reference to the pandemic in South Africa. Provincial indicators are provided and highly affected provinces are identified.

Chapter Three : Economic Impact of HIV/AIDS
This chapter intends to show the danger the scourge poses to the capacity of household, communities, institutions and nations in coping with the social and economic effects if it is allowed to spread unchecked. The adverse economic impact is startling. In high prevalence countries the growth rates of gross domestic product are slowly down, the manpower losses in key sectors are mounting, the number of orphans is increasing and household poverty is deepening. A vicious cycle. Also loss of specialised skills will be highlighted as this negatively affects the ability of any nation to break this vicious cycle.

Chapter Four : HIV/AIDS and the Law
This chapter provides a step-by-step guide through the law, looking at how it regulates the action of both employers and employees with reference to HIV/AIDS. The Constitution together with labour law as well as chosen case law, is discussed to give the reader an indication as to what law governs an employer’s and an employee’s actions, and the responsibilities borne by both.

The law remains an important regulating factor in the lives of citizens in any country. Laws are sets of rules that govern the way people behave. A business response to HIV/AIDS is therefore driven, in part, by a legal framework. It is this framework that requires businesses to act in certain ways with regard to HIV/AIDS in the workplace. Apart from the constraints and the boundaries in which a business may operate within, law seeks to entrench particular human rights. Workers are fearful of human violations (as a result of the stigma which surrounds this disease) and law is designed, in principle, to address these concerns.

To date, there are close on five million people living with HIV in South Africa. Yet the threat of human violations, and most notably – discrimination, makes many people afraid to be tested for HIV and they fear disclosure of their HIV status, even to close friends and family. Sadly, this means that there is little openness about HIV, which adds to the stigma
and misconception. It is notable that this epidemic is having a greater effect on the economically active population (i.e. those people who are employable). Employees are often not aware of their rights as individuals and rely on the integrity of the employer or trade unions too ensure that their rights are not violated. Employees can experience HIV-related discrimination from employers, supervisors or even fellow employees. It is to this extent that employees need to know and understand the law on HIV/AIDS to challenge both discrimination and abuse, which might be prevalent in the workplace.

Laws are passed to protect employees from acts of discrimination and abuse and so it becomes important to understand what these laws are, how they work and then how an employee can stand up for his/her rights in the workplace. This chapter looks at the Labour Relations Act, the Employment Equity Act, the Occupational Health and Safety Act, the Compensation for Occupational Injuries and Diseases Act, Basic Conditions of Employment Act, the Medical Schemes Act as well as discussing International and Foreign law, while bringing in relevant case law under the applicable Acts.

Chapter Five: Evaluation, Commentary and Recommendations.
The initial part of this chapter will describe the Rohm and Haas organization, the markets supplied and its true global presence. Thereafter the commentary will migrate to the local South African operation based in New Germany, Durban. Business issues will be briefly highlighted together with a graphical display of the employee complement and breakdown along various characteristics.

A description of the R&H New Germany HIV/AIDS policy will be provided as well as the current intervention programmes. This would lead into an in-depth evaluation of the R&H New Germany HIV/AIDS Policy and programmes largely along the following dimensions:

- Policy,
- Legal issues
- How to avoid HIV Infection
- Wellness management; and
• Monitoring and evaluation. Each dimension will be thoroughly discussed so as to obtain the desired level of understanding with regards to its contribution the success of the HIV/AIDS initiatives.

Strengths and weakness of the company’s initiatives will be discussed together with supporting reasons. This leads onto generating recommendations based on Best Practices. Details on how to develop a HIV/AIDS policy intervention program is explicitly discussed.

This chapter culminates with a proposed operational plan and action items that R&H New Germany can undertake to re-invigorate the fight against HIV/AIDS along focused and collaborative means. In this way it can be ensured that the organization is equipped with the methodology to implement high quality HIV/AIDS programmes that is cognisant of the following:

• economic impacts,
• legal issues,
• statistics,
• cultural differences,
• people, and
• ethical issues.

1.10. SUMMARY
This study will commence with a biomedical description of the virus; the structure, replication and transmission; and the progression from initial HIV infection to full blown AIDS. In order to fully grasp the severity of the pandemic, statistics will be reviewed. Here we will commence with the global statistics and work our way to the KwaZulu province. As this process is undertaken we will simultaneously highlight the main transmission modes as this will determine the type of intervention program to be adopted.

It has been widely touted that the economic impact of HIV/AIDS is devastating. Discussion will center on some social aspects as HIV/AIDS ravages the community. This
will be done in parallel to the economic impact review. Any intervention programme that an organization undertakes must take cognisance of the legal framework in place. Ignorance of the legal aspects will surely result in company decisions which can be classified as unfair labour practices. The legal framework also determines the employee benefits of the infected individuals.

Having established the main issues from a social, economic and legal perspective the study will proceed to describe in detail the steps to be undertaken to develop a suitable intervention programme. Thereafter Rohm and Haas New Germany’s HIV/AIDS Policy and Programme will be evaluated and the gap to Best Practices highlighted. Recommendations will be presented on how the organization can reinvigorate the fight against this pestilence.

This study on any organization is invaluable as companies are recognizing that they have a significant role to play in HIV/AIDS prevention and care. Not only do they have an impetus to act because of the effects of HIV/AIDS on company financial health but also they have particular qualities that make them ideal to serve as a venue for education and behaviour change. Companies have a captive audience to listen to messages regarding HIV/AIDS, employees spend the majority of their day at work where they can see posters reminding them about STI treatment, and positive peer pressure and opened discussion among colleagues can influence behaviours. Employees with HIV/AIDS are living and working longer than ever before with improved nutrition and even treatment. As a result, the workplace has taken on a new role to reassure all employees as to their safety and to communicate intolerance of discrimination and stigmatisation of the HIV positive. At the same time, with prevalence rates as high as 25% and higher in some companies, companies are mourning for their colleagues not just losing valuable skills. Employees are in need of care and counselling and to be empowered to cope with the epidemic.

Let us move onto investigating the nature of this pest by conducting a biomedical study. This will be done in the next chapter.
CHAPTER 2 - HIV/AIDS: BASICS AND STATISTICS

2.1. INTRODUCTION
AIDS was first recognised as a disease in the early 1980s. Since then it has spread throughout the world. According to the World Health Organisation’s 2002 Annual World Health Report it is now the leading cause of death in Africa, responsible for one in five deaths. Globally, it is the fourth most important cause of death. However, there is considerable variation in the pattern of epidemic spread between countries, within countries and even quite locally. Consequently there is also variation in the impact of the resulting illnesses and premature deaths. In the richer countries of the world, rates of infection are low and advances in treatment mean that people can live with AIDS, although for how long and in what state of health is currently uncertain. The burden of the epidemic falls on the world’s poorer countries and also on poorer communities in some richer countries.

AIDS is caused by the Human Immuno-deficiency Virus (HIV). This virus is transmitted via human body fluids and globally most infections occur through sex between men and women. The virus attacks the human immune system and ultimately makes it ineffective.

Most people die of infections or cancers against which they might well defend themselves were it not for their compromised immune systems. There is a strong link between HIV and tuberculosis. Many people are infected with TB, but this is not active. Once HIV infection occurs the TB is able to emerge and the result is that TB is one of the major opportunistic infections and killers of HIV infected people.

Because most infections are the result of heterosexual intercourse, the disease affects people in the age group which is broadly defined as “sexually active” between 15 and 50, although this is not to say that there are not infections below and above this range. The significance of this epidemiological characteristic is that the age groups most susceptible to infection are also the most economically and socially active. They are also least likely to be ill and/or die in normal circumstances. The issue of social and economic impact of
the HIV/AIDS epidemic stems from the unusual rates of severe illness and premature deaths that it produces in this age group.

HIV infection is not an immediate death sentence. Depending upon individual constitutions, rates and types of ambient infection, living conditions, diet and other factors, an infected person may have years of productive and healthy life before they start to fall ill (develop AIDS). It is not certain how long people can live with HIV, but it is estimated at 5-8 years on average in poorer countries, possibly many more in richer countries. Eventually the person will begin to experience periods of illness that increase in frequency, duration, and severity until they die. Many opportunistic infections and diseases associated with AIDS can be treated, (or prevented), at relatively low cost and allow for prolongation of life.

Recently developed anti-retroviral therapies may reverse or slow disease progression but are expensive, the proven therapies costing R 60 000 to R 100 000 per person per year for the drugs plus the cost of testing and clinical oversight of treatment regimes. There are some cheaper options, but it is unclear how efficacious or cost effective they are. The therapies are complex to administer and are most effective where the person receiving treatment has good diet, healthy living conditions and a stress-free environment. The financial resources and these conditions are, least likely to be available to the poor.

In the initial part of this chapter commentary will be provided on biomedical description of HIV/AIDS; the structure, replication and transmission of the virus; and the progression from initial HIV infection to full blown AIDS. The second part will describe the current world-wide statistics. The discussion will commence with the global statistics, move to regional statistics and filter down to the KwaZulu province. Whilst providing the statistics an attempt will be made to highlight the major trends and modes of transmission of each region. This is important as it becomes the starting point of evaluating the suitability and effectiveness of any HIV/AIDS intervention programme. If the intervention does not address the major causes of transmission, it is bound to fail.
2.2 WHAT IS HIV?

HIV belongs to a class of viruses called retroviruses. Retroviruses are ribonucleic acid (RNA) viruses, and in order to replicate they must make a deoxyribonucleic acid (DNA) copy of their RNA. It is the DNA genes that allow the virus to replicate.

Like all viruses, HIV can replicate only inside cells, commandeering the cell's machinery to reproduce. However, only HIV and other retroviruses, once inside a cell, use an enzyme called reverse transcriptase to convert their RNA into DNA, which can be incorporated into the host cell's genes.

*Slow viruses.* HIV belongs to a subgroup of retroviruses known as lentiviruses, or "slow" viruses. The course of infection with these viruses is characterized by a long interval between initial infection and the onset of serious symptoms.

2.3. STRUCTURE OF HIV

![Organization of the HIV-1 Virion](Source: www.niad.nih.gov)

Figure 2.1 – Structure of HIV-1 Virion (Source: www.niad.nih.gov)
2.3.1. The viral envelope
HIV has a diameter of 1/10,000 of a millimetre and is spherical in shape. The outer coat of the virus, known as the viral envelope, is composed of two layers of fatty molecules called lipids, taken from the membrane of a human cell when a newly formed virus particle buds from the cell. Embedded in the viral envelope are proteins from the host cell, as well as 72 copies (on average) of a complex HIV protein (frequently called "spikes") that protrudes through the surface of the virus particle (virion). This protein, known as Env, consists of a cap made of three molecules called glycoprotein (gp) 120, and a stem consisting of three gp41 molecules that anchor the structure in the viral envelope. Much of the research to develop a vaccine against HIV has focused on these envelope proteins.

2.3.2. The viral core
Within the envelope of a mature HIV particle is a bullet-shaped core or capsid, made of 2000 copies of another viral protein, p24. The capsid surrounds two single strands of HIV RNA, each of which has a copy of the virus's nine genes. The ends of each strand of HIV RNA contain an RNA sequence called the long terminal repeat (LTR). Regions in the LTR act as switches to control production of new viruses and can be triggered by proteins from either HIV or the host cell.
2.4. REPLICATION CYCLE OF HIV

Entry of HIV into cells. Infection typically begins when an HIV particle, which contains two copies of the HIV RNA, encounters a cell with a surface molecule called cluster designation 4 (CD4). Cells carrying this molecule are known as CD4 positive (CD4+) cells.
**Reverse transcription.** In the cytoplasm of the cell, HIV reverse transcriptase converts viral RNA into DNA, the nucleic acid form in which the cell carries its genes. Nine of the 15 antiviral drugs approved in the United States for the treatment of people with HIV infection -- AZT, ddC, ddI, d4T, 3TC, nevirapine, delavirdine, abacavir and efavirenz -- work by interfering with this stage of the viral life cycle.

**Integration.** The newly made HIV DNA moves to the cell's nucleus, where it is spliced into the host's DNA with the help of HIV integrase. HIV DNA that enters the DNA of the cell is called a "provirus."

**Transcription.** For a provirus to produce new viruses, RNA copies must be made that can be read by the host cell's protein-making machinery. These copies are called messenger RNA (mRNA), and production of mRNA is called transcription, a process that involves the host cell's own enzymes.

**Translation.** After HIV mRNA is processed in the cell's nucleus, it is transported to the cytoplasm. HIV proteins are critical to this process: for example, a protein encoded by the rev gene allows mRNA encoding HIV structural proteins to be transferred from the nucleus to the cytoplasm. Without the rev protein, structural proteins are not made.

In the cytoplasm, the virus co-opts the cell's protein-making machinery - including structures called ribosomes - to make long chains of viral proteins and enzymes, using HIV mRNA as a template. This process is called translation.

**Assembly and budding.** Newly made HIV core proteins, enzymes and genomic RNA gather just inside the cell's membrane, while the viral envelope proteins aggregate within the membrane. An immature viral particle forms and buds off from the cell, acquiring an envelope that includes both cellular and HIV proteins from the cell membrane. During this part of the viral life cycle, the core of the virus is immature and the virus is not yet infectious. The long chains of proteins and enzymes that make up the immature viral core
are now cleaved into smaller pieces by a viral enzyme called protease. This step results in infectious viral particles.

2.5. PROGRESSION FROM HIV INFECTION TO AIDS

After a person has been infected with HIV, it takes 2-12 weeks for the immune system to develop antibodies which can be detected in the bloodstream. This is called the window period. These antibodies are not able to overcome or destroy the virus. It is these antibodies that form the basis of the HIV antibody blood test used in diagnosing whether or not a person has HIV. If a person is tested for HIV during the window period, the virus will not be detectable, and the person will test negative, when he or she is really HIV-positive. This is known as a false negative result.

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>HIV Infection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial infection with HIV. This is when the virus enters the body. There are no signs or symptoms of infection.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage 2</th>
<th>Window period</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV infection with no signs or symptoms of disease and no detectable antibodies. An HIV antibody test will be negative although the virus is present. This stage usually lasts 2-12 weeks, but may last several months or sometimes longer.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stage 3</th>
<th>Seroconversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>This is when antibodies develop in the blood and an HIV test will detect them. In other words, it is when you convert from being HIV-negative to HIV-positive. It may be accompanied by a few days of flu-like illness with slight fever, tiredness, aching muscles and joints. Some people experience no illness at this stage.</td>
<td></td>
</tr>
</tbody>
</table>
**Asymptomatic HIV Infection**

Antibody tests are positive, but there are no apparent signs or symptoms of illness. This period may last from a few months to many years.

**HIV/AIDS related illnesses**

The immune system (the cells which fight disease) has been damaged by the virus. Symptoms of diseases increase but as yet they are not severe enough to threaten life. Examples of symptoms are a low-grade fever that lasts several weeks, diarrhoea, extreme tiredness, weight loss, skin rashes, swollen glands and night sweats. Women may get vaginal infections (thrush) that never seem to clear up, even with treatment. Infections gradually become more frequent and more serious. This period may last for months or years.

**AIDS**

Life threatening infections and cancers occur because the immune system is severely weakened. Typical infections are pneumonia, skin cancers, “slim’s” disease and Tuberculosis. The patient could die when an untreatable life-threatening condition develops. Life expectancy depends on the conditions that develop and the treatments available.

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Table 2.1 – Progression from HIV to AIDS (Source: Adapted from Helen Jackson, AIDS: action now-information, prevention and support in Zimbabwe. 1992)
2.6. HIV TRANSMISSION

For HIV to be transmitted from one person to another, there must be an exit point for the virus to pass out of the infected person and an entry point into the body of the uninfected person. Exit and entry points for the virus exist where the skin is not intact and body fluids such as blood and sexual fluids can enter through this break in the skin.

There are three main ways in which HIV is transmitted:

- **Sexual Contact**: There is a high concentration of the virus in blood, semen and vaginal fluids and the linings of the genital areas, when they are not intact, allowing for the virus to enter the body. The presence of a sexually transmitted disease (STD) increases the chances of transmitting or being infected with the virus. This is because open sores and the presence of inflammatory cells (which fight infection) increase the possibility that the virus will be transmitted. Women are more likely than men to be infected with the virus through heterosexual sex, because the lining of the vagina is very receptive to the virus.

- **Blood to blood transmission**: This can occur when an uninfected person has an open wound which comes into contact with infected blood. The blood from the person with HIV must go through the skin into another person’s body for transmission to occur.

- **From an infected mother to her child during pregnancy, childbirth or breastfeeding**.

There is no risk of HIV transmission through casual contact between workers in the workplace.
2.7. HIV/AIDS STATISTICS

The AIDS epidemic claimed more than 3 million lives in 2002, and an estimated 5 million people acquired the human immunodeficiency virus (HIV) in 2002—bringing to 42 million the number of people globally living with the virus.

As the world enters the third decade of the AIDS epidemic, the evidence of its impact is undeniable. Wherever the epidemic has spread unchecked, it is robbing countries of the resources and capacities on which human security and development depend. In some regions, HIV/AIDS, in combination with other crises, is driving ever-larger parts of nations towards destitution. The world stood by as HIV/AIDS swept through these countries. It cannot be allowed to turn a blind eye to an epidemic that continues to expand in some of the most populous regions and countries of the world.

In Eastern Europe and Central Asia, the number of people living with HIV in 2002 stood at 1.2 million. HIV/AIDS is expanding rapidly in the Baltic States, the Russian Federation and several Central Asian republics. In Asia and the Pacific, 7.2 million people are now living with HIV. The growth of the epidemic in this region is largely due to the growing epidemic in China, where a million people are now living with HIV and where official estimates foresee a manifold increase in that number over the coming decade. There remains considerable potential for growth in India, too, where almost 4 million people are living with HIV.

In several countries experiencing the early stages of the epidemic, significant economic and social changes are giving rise to conditions and trends that favour the rapid spread of HIV—for example, wide social disparities, limited access to basic services and increased migration. Best current projections suggest that an additional 45 million people will become infected with HIV in 126 low- and middle-income countries (currently with concentrated or generalized epidemics) between 2002 and 2010—unless the world succeeds in mounting a drastically expanded, global prevention effort. More than 40% of those infections would occur in Asia and the Pacific (currently accounts for about 20% of new annual infections).
Pinning down HIV trends

The most common measure of the HIV/AIDS epidemic is the prevalence of HIV infections among a country’s adult population—in other words, the percentage of the adult population living with HIV. Prevalence of HIV provides a good picture of the overall state of the epidemic. Think of it as a still photograph of HIV/AIDS. In countries with generalized epidemics, this image is based largely on HIV tests done on anonymous blood samples taken from women attending antenatal clinics.

But prevalence offers a less clear picture of recent trends in the epidemic, because it does not distinguish between people who acquired the virus very recently and those who were infected a decade or more ago. (Without antiretroviral treatment, a person might survive, on average, up to 9–11 years after acquiring HIV; with treatment, survival is substantially longer.)

Countries A and B, for example, could have the same HIV prevalence, but be experiencing very different epidemics. In country A, the vast majority of people living with HIV/AIDS (the prevalent cases) might have been infected 5–10 years ago, with few recent infections occurring. In country B, the majority of people living with HIV/AIDS might have been infected in the past two years. These differences would obviously have a huge impact on the kind of prevention and care efforts that countries A and B need to mount.

Similarly, HIV prevalence rates might be stable in country C, suggesting that new infections are occurring at a stable rate. That may not be the case, however. Country C could be experiencing higher rates of AIDS mortality (as people infected a decade or so ago die in large numbers), and an increase in new infections. Overall HIV prevalence rates would not illuminate those details of the country’s epidemic.

So a measure of HIV incidence (i.e. the number of new infections observed over a year among previously uninfected people) would help complete the picture of current trends. Think of it as an animated image of the epidemic.

The problem is that measuring HIV incidence is expensive and complicated—to the point of it being unfeasible at a national level and on a regular basis in most countries.

None of this means, however, that recent trends are a mystery. Regular measurement of HIV prevalence among groups of young people can serve as a proxy, albeit imperfect, for HIV incidence among them. Because of their age, young people will have become infected relatively recently. Significant changes in HIV prevalence among 15–19- or 15–24-year-olds can therefore reflect important new trends in the epidemic.

Source: UNAIDS, 2003: 7
Responses that involve and treat young people as a priority pay off, as evidence from Ethiopia, South Africa, Uganda and Zambia shows. HIV prevalence levels among young women in Addis Ababa declined by more than one-third between 1995 and 2001. Among pregnant teenagers in South Africa, HIV prevalence levels shrunk a quarter between 1998 and 2001. Prevalence remains unacceptably high, but these positive trends confirm the value of investing in responses among the young.

The future trajectory of the global HIV/AIDS epidemic depends on whether the world can protect young people everywhere against the epidemic and its aftermath. Just as certain sectors of society are at particular risk of HIV infection, certain conditions favour the epidemic’s growth. As the current food emergencies in southern Africa show, the AIDS epidemic is increasingly entangled with wider humanitarian crises. The risk of HIV spread often increases when desperation takes hold and communities are wrenched apart. At the same time, the ability to stall the epidemic’s growth also suffers, as does the capacity to provide adequate treatment, care and support.
### 2.8. GLOBAL SUMMARY OF THE HIV/AIDS EPIDEMIC: DECEMBER 2002

**Number of people living with HIV/AIDS**

<table>
<thead>
<tr>
<th>Category</th>
<th>People</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>42 million</td>
</tr>
<tr>
<td>Adults</td>
<td>38.6 million</td>
</tr>
<tr>
<td>Women</td>
<td>19.2 million</td>
</tr>
<tr>
<td>Children under 15 years</td>
<td>3.2 million</td>
</tr>
</tbody>
</table>

**People newly infected with HIV in 2002**

<table>
<thead>
<tr>
<th>Category</th>
<th>People</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>5 million</td>
</tr>
<tr>
<td>Adults</td>
<td>4.2 million</td>
</tr>
<tr>
<td>Women</td>
<td>2 million</td>
</tr>
<tr>
<td>Children under 15 years</td>
<td>800 000</td>
</tr>
</tbody>
</table>

**AIDS deaths in 2002**

<table>
<thead>
<tr>
<th>Category</th>
<th>People</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>3.1 million</td>
</tr>
<tr>
<td>Adults</td>
<td>2.5 million</td>
</tr>
<tr>
<td>Women</td>
<td>1.2 million</td>
</tr>
<tr>
<td>Children under 15 years</td>
<td>610 000</td>
</tr>
</tbody>
</table>

Table 2.2 – Global summary of HIV/AIDS epidemic: December 2003 (Source: UNAIDS, 2002: 12)
### 2.9. REGIONAL HIV/AIDS STATISTICS AND FEATURES: DECEMBER 2002

<table>
<thead>
<tr>
<th>Region</th>
<th>Epidemic started (year)</th>
<th>Adults and children living with HIV/AIDS (#)</th>
<th>Adults and children newly infected with HIV (#)</th>
<th>Adult prevalence (%)</th>
<th>% of HIV-positive adults who are women (%)</th>
<th>Main mode(s) with HIV/AIDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Saharan Africa</td>
<td>late '70s early '80s</td>
<td>29.4 million</td>
<td>3.5 million</td>
<td>8.8%</td>
<td>58%</td>
<td>Hetero</td>
</tr>
<tr>
<td>North Africa &amp; Middle East</td>
<td>late '80s</td>
<td>550 000</td>
<td>83 000</td>
<td>0.3%</td>
<td>55%</td>
<td>Hetero, IDU</td>
</tr>
<tr>
<td>South &amp; South-East Asia</td>
<td>late '80s</td>
<td>6.0 million</td>
<td>700 000</td>
<td>0.6%</td>
<td>36%</td>
<td>Hetero, IDU</td>
</tr>
<tr>
<td>East Asia &amp; Pacific</td>
<td>late '80s hetro</td>
<td>1.2 million</td>
<td>270 000</td>
<td>0.1%</td>
<td>24%</td>
<td>IDU, hetero, hetro, MSM</td>
</tr>
<tr>
<td>Latin America</td>
<td>late '70s early '80s</td>
<td>1.5 million</td>
<td>150 000</td>
<td>0.6%</td>
<td>30%</td>
<td>MSM, IDU, hetro, MSM</td>
</tr>
<tr>
<td>Caribbean</td>
<td>late '70s early '80s</td>
<td>440 000</td>
<td>60 000</td>
<td>2.4%</td>
<td>50%</td>
<td>Hetero, MSM</td>
</tr>
<tr>
<td>Eastern Europe &amp; Central Asia</td>
<td>early '90s</td>
<td>1.2 million</td>
<td>250 000</td>
<td>0.6%</td>
<td>27%</td>
<td>IDU</td>
</tr>
<tr>
<td>Western Europe</td>
<td>late '70s early '80s</td>
<td>570 000</td>
<td>30 000</td>
<td>0.3%</td>
<td>25%</td>
<td>MSM, IDU</td>
</tr>
<tr>
<td>North America</td>
<td>late '70s hetro</td>
<td>980 000</td>
<td>45 000</td>
<td>0.6%</td>
<td>20%</td>
<td>MSM, IDU, hetro</td>
</tr>
<tr>
<td>Australia &amp; New Zealand</td>
<td>late '70s early '80s</td>
<td>15 000</td>
<td>500</td>
<td>0.1%</td>
<td>7%</td>
<td>MSM</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>42 million</strong></td>
<td><strong>5 million</strong></td>
<td><strong>1.2%</strong></td>
<td><strong>50%</strong></td>
<td></td>
</tr>
</tbody>
</table>

* The proportion of adults (15 to 49 years of age) living with HIV/AIDS in 2002, using 2002 population numbers.

# Hetero (heterosexual transmission), IDU (transmission through injecting drug use), MSM (sexual transmission among men who have sex with men).

Table 2.3 Regional HIV/AIDS statistics and features: December 2002 (Source: UNAIDS, 2002:14)
2.9.1. Asia and the Pacific

Almost 1 million people in Asia and the Pacific acquired HIV in 2002, bringing to an estimated 7.2 million the number of people now living with the virus—a 10% increase since 2001. A further 490,000 people are estimated to have died of AIDS in the past year. About 2.1 million young people (aged 15–24) are living with HIV.

With the exception of Cambodia, Myanmar and Thailand, national HIV prevalence levels remain comparatively low in most countries of Asia and the Pacific. In vast, populous countries such as China, India and Indonesia, low national prevalence rates blur the picture of the epidemic. Both China and India, for example, are experiencing serious, localized epidemics that are affecting many millions of people. India’s national adult HIV prevalence rate of less than 1% offers little indication of the serious situation facing the country. An estimated 3.97 million people were living with HIV at the end of 2001—the second-highest figure in the world, after South Africa. HIV prevalence among women attending antenatal clinics was higher than 1% in Andhra Pradesh, Karnataka, Maharashtra, Manipur, Nagaland and Tamil Nadu.

The epidemic in China shows no signs of abating. Official estimates put the number of people living with HIV in China at 1 million in mid-2002. Officially, the number of reported new HIV infections rose about 17% in the first six months of 2002. But HIV incidence rates can soar abruptly in a country marked by widening socio-economic disparities and extensive migration (an estimated 100 million Chinese are temporarily or permanently away from their registered addresses), with the virus spreading along multiple channels.

The onward sexual transmission of HIV by people who became infected when they sold their blood to collecting centres that ignored basic blood-donation safety procedures poses a massive challenge, as does the need to provide them with treatment and care. Signalling the gravity of the situation, one 2001 survey in rural eastern China found alarmingly high HIV prevalence—12.5%—among people who had donated plasma.

High HIV infection rates are being discovered among specific population groups (chiefly injecting drug users, sex workers, and men who have sex with men) in countries across the length
and breadth of Asia and the Pacific. Throughout the region, injecting drug use offers the epidemic huge scope for growth. Upwards of 50% of injecting drug users already have acquired the virus in parts of Malaysia, Myanmar, Nepal, Thailand and in Manipur in India, while HIV infections among Indonesia's growing population of injecting drug users is soaring.

Male-to-male sex occurs in all countries of the region and features significantly in the epidemic. Countries that have measured HIV prevalence among men who have sex with men have found it to be high—14% in Cambodia in 2000 and roughly the same level among male Thai sex workers. Homophobia or dominant cultural norms mean that many men who have sex with men hide that aspect of their sexuality. Many might marry or have sexual relationships with women.

In Thailand, meanwhile, recent modelling suggests that the main modes of transmission have been changing. Whereas most HIV transmission in the 1990s occurred through commercial sex, half of the new HIV infections now appear to be occurring among the wives and sexual partners of men who were infected several years ago. There are also indications that unsafe sexual behaviour is on the increase among young Thais.

The Asian country with the highest adult HIV prevalence—Cambodia—has reported stabilizing levels of infection, along with still-decreasing levels of high-risk behaviour. HIV prevalence among pregnant women in major urban areas declined slightly from 3.2% in 1996 to 2.8% in 2002, according to the latest available data. Prevalence among sex workers declined from 42% in 1998 to 29% in 2002, according to the latest surveillance data, with the decline most pronounced among sex workers under 20. Given the high turnover of sex workers in Cambodia (almost three-quarters engage in sex work for less than two years), this steady decline suggests that prevention efforts focused on sex workers are yielding positive results among the succession of new entrants into sex work. Consistent condom use by sex workers appears to be the most important behavioural change achieved; it rose from 37% in 1997 to 90% in 2001. Given that many of the factors facilitating HIV transmission (including periodic economic upheaval and high rates of population mobility) are rife throughout this region, no country is immune to a rapidly spreading and widespread epidemic.
2.9.2. Eastern Europe and Central Asia

The unfortunate distinction of having the world’s fastest-growing HIV/AIDS epidemic still belongs to Eastern Europe and Central Asia. In 2002, there were an estimated 250,000 new infections, bringing to 1.2 million the number of people living with HIV/AIDS.

In recent years, the Russian Federation has experienced an exceptionally steep rise in reported HIV infections. In less than eight years, HIV/AIDS epidemics have been discovered in more than 30 cities and 86 of the country’s 89 regions. Up to 90% of the registered infections have been attributed officially to injecting drug use, reflecting the fact that young people face high risks of HIV infection as occasional or regular drug injectors. Indeed, almost 80% of registered new infections in the Commonwealth of Independent States between 1997 and 2000 were among people younger than 29. In the Russian Federation, the total number of reported HIV infections climbed to over 200,000 by mid-2002—a huge increase over the 10,993 reported less than four years ago, at the end of 1998.

Throughout Eastern Europe and Central Asia, young people are particularly hard-hit by the epidemic. It is estimated that up to 1% of the population of those countries is injecting drugs, placing these people and their sexual partners at high risk of infection. Those injecting drugs can be very young—some a mere 13–14 years old. One study among Moscow secondary-school students revealed that 4% had injected drugs. In the Russian Federation, and in many of the Central Asian Republics, the wave of injecting drug use is closely correlated with socio-economic upheavals that have sent the living standards of tens of millions of people plummeting, amid rising unemployment and poverty levels. Another factor has been the four-fold increase in world production of heroin in the past decade, along with the opening of new trafficking routes across Central Asia.

In Estonia, reported infections soared from 12 in 1999 to 1,474 in 2001. (Relative to population size, Estonia now has the highest rate of new HIV infections in this region—50% higher than the Russian rate). A burgeoning epidemic is visible, too, in Latvia, where new reported infections rose from 25 in 1997 to 807 in 2001, and where a further 308 new HIV cases had been registered by the end of June 2002.
Cumulative reported HIV infections per million population, Eastern European countries: 1993–2001

The other Baltic State, Lithuania, is experiencing a major HIV outbreak in one of its prisons, where 284 inmates (15% of the total) were diagnosed HIV-positive between May and August 2002. This confirms the important, though often overlooked, role of prisons in the spread of HIV in many countries of the region. The concentration of large numbers of young people in overcrowded prisons or juvenile justice facilities, often marked by an abundance of drugs but a scarcity of HIV information, clean needles and condoms, provides fertile ground for the rapid spread of HIV among inmates and, upon their eventual release, into the wider population.

While injecting drug use among young people remains the predominant mode of HIV transmission in the Russian Federation and other countries of the region, heterosexual intercourse
has now become a prominent mode of transmission in Belarus and Ukraine. The latter, with an estimated adult HIV prevalence rate of 1%, is the most affected country in the region (and, indeed, in all of Europe). New diagnoses of HIV in persons infected through heterosexual intercourse accounted for 28% of all new cases reported in the first six months of 2002—up from 15.3% in 1998 (see graph above). In Belarus, the same proportion of new registered infections in 2001 was attributed to heterosexual transmission. Although many of these infections may occur in the sexual partners of injecting drug users, the trend may also indicate spread into the wider population of these countries.

In some cities of the Russian Federation and Ukraine, for example, up to 30% of female injecting drug users are also involved in commercial sex work. More generally, recent studies in Donetsk, Moscow and St Petersburg have revealed HIV prevalence rates of 13–17% among sex workers.

There is evidence that young people in several countries are becoming sexually active at an earlier age and that premarital sex is increasing. Yet, awareness and knowledge of HIV/AIDS remain dismal in many places. In Azerbaijan and Uzbekistan, for example, one-third of young women (aged 15–24) had never heard of AIDS, according to a 2001 survey. Meanwhile, very high rates of sexually transmitted infections continue to be found in Eastern Europe and Central Asia, pointing to widespread unsafe sex and increased odds of HIV infection. In the Russian Federation, between 200 000 and 400 000 cases of syphilis are reported annually.

In contrast, there is cause for moderate optimism in Central Europe, where countries continue to hold the epidemic at bay; HIV incidence overall remained exceptionally low in 2001 (7–10 reported infections per million persons). Prevalence remains low in countries such as the Czech Republic, Hungary, Poland and Slovenia, where well-designed national HIV/AIDS programmes are also in operation.
2.9.3. Sub-Saharan Africa

By far the worst-affected region, sub-Saharan Africa is now home to 29.4 million people living with HIV/AIDS. Approximately 3.5 million new infections occurred there in 2002, while the epidemic claimed the lives of an estimated 2.4 million Africans in the past year. Ten million young people (aged 15–24) and almost 3 million children under 15 are living with HIV.

A fully-fledged epidemic is only now taking hold in many African countries—as much greater numbers of people who acquired HIV over the past several years fall ill. In the absence of massively expanded prevention, treatment and care efforts, the AIDS death toll on the continent is expected to continue rising before peaking around the end of this decade. This means that the worst of the epidemic’s impact on those societies will be felt in the course of the next decade and beyond. It is not too late to introduce and augment measures that can reduce that impact, including wider access to HIV medicines and socio-economic policy steps that genuinely shield the poor against the worst of the epidemic’s effects.

The worst of the epidemic clearly has not yet passed, even in southern Africa where rampant epidemics are under way. In four southern African countries, national adult HIV prevalence has risen higher than thought possible, exceeding 30%: Botswana (38.8%), Lesotho (31%), Swaziland (33.4%) and Zimbabwe (33.7%).

Yet, there are new, hopeful signs that the epidemic could eventually be brought under control. Positive trends seem to be taking hold among younger people in a number of countries. In South Africa, for pregnant women under 20, HIV prevalence rates fell to 15.4% in 2001 (down from 21% in 1998). This, along with the drop in syphilis rates among pregnant women attending antenatal clinics—down to 2.8% in 2001, from 11.2% four years earlier—suggests that awareness campaigns and prevention programmes are bearing fruit. A major challenge now is to sustain and build on such tentative success, not least because HIV infection levels continue to rise among older pregnant women, as the graph below shows.
Elsewhere, in west and central Africa, the relatively low adult HIV prevalence rates in countries such as Senegal (under 1%) and Mali (1.7%) are shadowed by more ominous patterns of growth. HIV prevalence is estimated to exceed 5% in eight other countries of west and central Africa, including Cameroon (11.8%), Central African Republic (12.9%), Côte d’Ivoire (9.7%) and Nigeria (5.8%)—sobering reminders that no country or region is shielded from the epidemic. The sharp rise in HIV prevalence among pregnant women in Cameroon (more than doubling to over 11% among those aged 20–24 between 1998 and 2000), shows how suddenly the epidemic can surge.
Why do young African women appear so prone to HIV infection?

Despite recent positive trends among young people (especially females) in some African countries, overall about twice as many young women as men are infected in sub-Saharan Africa. In 2001, an estimated 6–11% of young women aged 15–24 were living with HIV/AIDS, compared to 3–6% of young men. This appears to be due to a combination of factors. Women and girls are commonly discriminated against in terms of access to education, employment, credit, health care, land and inheritance. With the downward trend of many African economies increasing the ranks of people in poverty, relationships with men (casual or formalized through marriage) can serve as vital opportunities for financial and social security, or for satisfying material aspirations. Generally, older men are more likely to be able to offer such security. But, in areas where HIV/AIDS is widespread, they are also more likely to have become infected with HIV. The combination of dependence and subordination can make it very difficult for girls and women to demand safer sex (even from their husbands) or to end relationships that carry the threat of infection. Studies have shown that young women tend to marry men several years older, and that their risk of infection increases if a husband is three or more years older than they are. Meanwhile, ignorance about sexual and reproductive health and HIV/AIDS is widespread. This, combined with the fact that young women and girls are more biologically prone to infection (the cervix being susceptible to lesions), helps explain the large differences in HIV prevalence between girls and boys aged 15–19.

Source: UNAIDS, 2003: 10

The vast majority of Africans—more than 90%—have not acquired HIV. Enabling them to remain HIV-free is a massive challenge, with the protection of young people a priority. Treating and caring for the millions of Africans living with HIV/AIDS poses an inescapable challenge to the continent and the world at large. Relatively prosperous Botswana has become the first African country to adopt a policy to ultimately make antiretrovirals available to all citizens who need them. However, comparatively few people (approximately 2000) are currently benefiting from this commitment. In addition, a handful of companies (such as AngloGold, De Beers, and Heineken) have announced schemes to provide antiretrovirals to workers and some family members. These are valuable efforts. Measured against the extent of need, however, they are plainly inadequate.
2.9.4. Latin America and the Caribbean

The epidemics in Latin America and the Caribbean are well established. An estimated 1.9 million adults and children are living with HIV in this region—a figure that includes the estimated 210,000 people who acquired the virus in 2002.

Twelve countries in this region (including the Dominican Republic and Haiti, several Central American countries, such as Belize and Honduras, and Guyana and Suriname) have an estimated HIV prevalence of 1% or more among pregnant women. In several Caribbean countries, adult HIV prevalence rates are surpassed only by the rates experienced in sub-Saharan Africa—making this the second-most affected region in the world. HIV/AIDS is now a leading cause of death in some of these countries. Haiti remains worst affected (with an estimated national adult HIV prevalence of over 6%) along with the Bahamas (where prevalence is 3.5%). It should be noted, however, that the quality of surveillance systems varies widely across the region, making it possible that serious, localized epidemics in other parts of the region might be escaping detection.

Over the past decade, the ratio of men with HIV infections to women with HIV infections has narrowed considerably—to about 3-to-1 in Latin America and 2-to-1 in the Caribbean. Paradoxically, men who have sex with men appear to feature prominently in the increasing feminisation of the epidemic: recent research has shown that a large proportion of men who have sex with men also have sex with women. While HIV/AIDS programmes focusing on men who have sex with men are vital, sexual identities are more fluid than often assumed. Prevention efforts need to be tailored to apparently widespread—but hidden—bisexual behaviour in this region (as in many parts of Asia, too).

The spread of HIV through the sharing of injecting drug equipment is of growing concern in several countries, notably Argentina, Brazil, Chile, Paraguay and Uruguay (in South America), the northern parts of Mexico, and Bermuda and Puerto Rico (in the Caribbean). Injecting drug use accounts for an estimated 40% of reported new infections in Argentina and 28% in Uruguay; in both countries, an increasing number of women with HIV are either injecting drug users or sexual partners of male drug users.
Like Argentina, Brazil has adopted a less punitive approach to dealing with the dual challenge of injecting drug use and HIV infection—to good effect. Prevention programmes among injecting drug users have contributed to a substantial decline in HIV prevalence in this population in several large metropolitan areas. In addition, a national survey has shown increasing condom use among injecting drug users (from 42% in 1999 to 65% in 2000)—a sign that sustained education and prevention efforts are bearing fruit. Argentina authorized its Ministry of Health to introduce a national policy on harm reduction in 2001, and is collaborating with Chile, Paraguay and Uruguay to set up similar schemes.

New light is being cast on a hitherto hidden dimension of the epidemic: HIV infection among prisoners. A study in three urban prisons in Honduras has revealed an HIV prevalence of almost 7% among male prisoners in general, and almost 5% among those aged 16–20 years (who, because of their young age, are likely to have become infected relatively recently). Less than 10% of the men reported regular condom use. The likelihood that similar patterns of transmission could be occurring in other countries of the region underscores the need for both more research and more systematic programmes that can protect prisoners and their partners against HIV/AIDS. Despite a clear need for focused HIV prevention work among prison inmates, institutional barriers impede the development and evaluation of such programmes.

Among the factors helping drive the spread of HIV in the region overall is a combination of unequal socio-economic development and high population mobility. Central America’s worsening AIDS epidemic, for example, is concentrated mainly among socially marginalized sections of populations, many of whom are compelled to migrate in search of work and income. Unless overcome, the economic difficulties plaguing several countries in the region are likely to further entrench a socio-economic context that can facilitate the epidemic’s spread.
2.9.5. Middle East and North Africa

Available data point to increasing HIV infection rates, with an estimated 83 000 people having acquired the virus in 2002. This brings to 550 000 the estimated number of people living with HIV/AIDS. The epidemic claimed about 37 000 lives in 2002.

However, systematic surveillance remains inadequate, making it very difficult to deduce accurate trends. It is possible that hidden epidemics could be spreading in this region. Better surveillance systems (such as those introduced in Iran, Jordan, and Syria) will enable more countries to accurately track the development of the epidemic and mount effective responses.

Significant outbreaks of HIV infections among injecting drug users have occurred in about half the countries in the region, notably in North Africa and in the Islamic Republic of Iran. In Iran, most HIV transmission is occurring among the country’s estimated 200 000–300 000 injecting drug users, about 1% of whom are believed to be living with HIV. High-risk behaviour is widespread in this largely male population: about half of the users share injecting equipment, and as many are believed to have extramarital sexual relations. According to some estimates, a significant percentage (more than 30%) of them is married. Yet condom use is very rare. In addition, about 10% of prisoners are believed to inject drugs and more than 95% of them share needles. HIV prevalence among imprisoned drug injectors was 12% in 2001.

Other infected groups include men who have sex with men, sex workers and their clients. In Morocco, the National AIDS Control Programme has noted the relatively high prevalence of other sexually transmitted infections—a sign that unsafe sex is more common than routinely assumed.
2.9.6. High-income countries

Approximately 76000 people became infected with HIV in high-income countries in 2002. A total of about 1.6 million people are now living with the virus in these countries, where an estimated 23 000 people died of AIDS in 2002.

Several salient changes have emerged in recent years. The introduction of antiretroviral therapy since 1995/1996 has dramatically reduced HIV/AIDS-related mortality, although this trend has begun to level off in the past two years. Longer survival of people living with HIV/AIDS has led to a steady increase in the number of people living with the virus in high-income countries. About 500 000 people were receiving these drugs at the end of 2001.

A larger proportion of new HIV diagnoses (59% more overall between 1997 and 2001) in several Western European countries is occurring through heterosexual intercourse. More than half of the 4279 new HIV infections diagnosed in the United Kingdom in 2001 resulted from heterosexual sex, compared to 33% of new infections in 1998. In Ireland, a similar trend is visible, with the number of heterosexually transmitted HIV infections increasing fourfold between 1998 and 2001. Although injecting drug use remains the main mode of transmission in Spain, about one-quarter of all HIV infections have been heterosexually transmitted.

Most high-income countries are contending also with concentrated HIV epidemics, including in the United States of America where injecting drug use is a prominent route of HIV infection (accounting for 14% of all reported HIV diagnoses). Reported HIV prevalence among injecting drug users in Spain in 2000 was 20–30% nationwide, while, in France, prevalence rates ranged between 10% and 23%. Portugal’s serious epidemic among injecting drug users accounted for more than half the newly diagnosed HIV infections in both 2000 and 2001, though the number of reported HIV infections among injecting drug users declined significantly in 2001.

Reported HIV infections among young people can indicate overall trends in incidence, since those persons are likely to have become exposed to HIV relatively recently. In the 34 areas of the United States with confidential HIV reporting, the bulk of HIV infections among 13–19-year-olds reported in July 2000–June 2001 were among females (56%), a disproportionate percentage of
them African-American. Most young women had acquired the virus through heterosexual intercourse.

Latest available data show that the epidemic’s shift into poorer and marginalized sections of society is continuing. African-Americans accounted for an estimated 54% of new HIV infections in 2000 (but constitute only 13% of the population of the United States). AIDS-related illnesses remained the leading cause of death for African-American men aged 25–44 and the third-leading cause of death for Hispanic men in the same age group. (In Canada, meanwhile, aboriginal persons accounted for 9% of new HIV infections in 1999, although they constituted less than 3% of the general population.) HIV prevalence levels are exceptionally high among African-American men who have sex with men—up to 30% among 23–29-year-olds, according to one six-city survey. About 64% of the women diagnosed with HIV in 2001 in the United States were African-American. A significant number of these women acquired the virus from men who also have sex with men.

Underscoring the need for renewed prevention efforts, especially among young people, are recent findings of increases in high-risk behaviours, less frequent condom use and higher rates of sexually transmitted infections in several countries. In the United Kingdom, for example, rates of gonorrhoea, syphilis and chlamydial infections have more than doubled since 1995, while increases have been found in other Western European countries, too.

In Japan, where a record 621 people (most of them males) acquired HIV in 2001, the virus is spreading increasingly among young people. A reportedly growing trend of casual sex with multiple partners (known as sukusutomo or ‘sex friends’), along with falling condom sales, suggests that new patterns of HIV spread could widen significantly. Nearly 40% of new HIV infections in 2001 were among people in their teens and twenties—a development that seems to match reports of increased rates of sexually transmitted infection among Japanese men (up 21% between 1998 and 2000) and women (up 14%) under 24.
2.10. MAPS

2.10.1. Global estimates for adults and children, end 2002

People living with HIV/AIDS ....................... 42 million
New HIV infections in 2002 .......................... 5 million
Deaths due to HIV/AIDS in 2002 ...................... 3.1 million
2.10.2. Adults and children estimated to be living with HIV/AIDS, end 2002

<table>
<thead>
<tr>
<th>Region</th>
<th>Estimated Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
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</tr>
<tr>
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</tr>
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<td>Latin America</td>
<td>1,500,000</td>
</tr>
<tr>
<td>Western Europe</td>
<td>570,000</td>
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<td>North Africa &amp; Middle East</td>
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<tr>
<td>East Asia &amp; Pacific</td>
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<tr>
<td>South &amp; South-East Asia</td>
<td>6,000,000</td>
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<tr>
<td>Australia &amp; New Zealand</td>
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</tr>
</tbody>
</table>

**Total:** 42 MILLION
2.10.3. Estimated no. of adults & children newly infected with HIV during 2002

<table>
<thead>
<tr>
<th>Region</th>
<th>Number</th>
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<tbody>
<tr>
<td>North America</td>
<td>45,000</td>
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<tr>
<td>Caribbean</td>
<td>60,000</td>
</tr>
<tr>
<td>Latin America</td>
<td>150,000</td>
</tr>
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<td>Western Europe</td>
<td>30,000</td>
</tr>
<tr>
<td>North Africa &amp; Middle East</td>
<td>83,000</td>
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<td>Sub Saharan Africa</td>
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<td>Eastern Europe &amp; Central Asia</td>
<td>250,000</td>
</tr>
<tr>
<td>East Asia &amp; Pacific</td>
<td>270,000</td>
</tr>
<tr>
<td>South &amp; South-East</td>
<td>700,000</td>
</tr>
<tr>
<td>Australia &amp; New Zealand</td>
<td>500</td>
</tr>
</tbody>
</table>

**Total: 5 million**
2.10.4. Estimated adult and child deaths due to HIV/AIDS during 2002

TOTAL: 3.1 MILLION
2.11. SOUTH AFRICA

2.11.1. Introduction
South Africa has never experienced an epidemic of the magnitude of the HIV/AIDS epidemic. The routine surveillance conducted by the Department of Health has shown that among pregnant women attending public health clinics for antenatal care, the prevalence has increased from less than 1% in 1990 to 25% in 2001. The rapid mortality surveillance system established by the Burden of Disease Unit of the Medical Research Council (MRC) and Centre for Actuarial Research at the University of Cape Town (UCT) has shown that there has been an increase in young adult mortality and that by the year 2000, AIDS had become the biggest single cause of death.

2.11.2. The course of the epidemic
Nationally, the epidemic can be considered to be entering the mature phase. Assuming a worst-case scenario with no changes in behaviour and no interventions, are that 6,5 million people are infected with HIV in the year 2002. Figure 2.5 on the next page shows that the total number of people infected with HIV is reaching its peak, which is the natural course of the epidemic. This is because the number of new infections has slowed down and because people who are infected are dying, as shown in Figure 2.6. Incidence, the number of people who are newly infected, peaked in about 1998 and has begun to decrease. However, the number of people dying from AIDS each year has only now started to increase. Without interventions to reduce mortality, it will peak in about 2010. In turn, this mortality will result in increasing numbers of children who are orphaned. The number of maternal orphans who are under 15 years of age will peak in about 2015.
Figure 2.5 – Total HIV infections and AIDS orphans (Source: Dorrington R E et al. HIV/AIDS profile of the provinces of South Africa-indicators for 2002)
Figure 2.6 – New Infections and AIDS Deaths (Source: Dorrington R E et al. HIV/AIDS profile of the provinces of South Africa-indicators for 2002)
2.11.3. Provincial variations

The antenatal data reveal that the spread of the epidemic has differed between the provinces. The provinces differ in terms of ultimate plateaux, ranging from a low of 14% for the Western Cape to a high of nearly 40% for KwaZulu-Natal. Four of the nine provinces appear to be following similar epidemics while the epidemic in KwaZulu-Natal appears to have started earliest and is expected to peak at the highest level. The epidemic in the Northern Province, Northern Cape and the Western Cape are expected to level off at lower levels than the others. The Eastern Cape is beginning to reveal a distinctive pattern, with a much slower increase and no plateau by the year 2010.

2.11.4. Births

Statistical modelling predicts a total of over 1,1 million births for the period 1 January to 31 December 2002. KwaZulu-Natal accounts for over one-fifth (21.6%) of these births. Of all babies born during this period, about 69 000 (5.9%) are estimated to have been infected at birth, while more than a further 20 000 will become infected through mother’s milk during the year. The percentage of babies infected ranges from a high of 8.3% in KwaZulu-Natal, to a low of 1.5% in Western Cape.

<table>
<thead>
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<th>Births</th>
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<th>GT</th>
<th>KZ</th>
<th>LM</th>
<th>MP</th>
<th>NC</th>
<th>NW</th>
<th>WC</th>
<th>SA</th>
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</thead>
<tbody>
<tr>
<td>Uninfected births</td>
<td>192 233</td>
<td>62 517</td>
<td>176 272</td>
<td>233 774</td>
<td>153 512</td>
<td>77 083</td>
<td>20 922</td>
<td>86 710</td>
<td>91 492</td>
<td>1 066 476</td>
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<tr>
<td>HIV+births</td>
<td>11 280</td>
<td>4 366</td>
<td>10 500</td>
<td>21 430</td>
<td>8 344</td>
<td>5 746</td>
<td>746</td>
<td>5 435</td>
<td>1 304</td>
<td>69 213</td>
</tr>
<tr>
<td>Infected by mothers milk</td>
<td>3 304</td>
<td>1 295</td>
<td>3 123</td>
<td>6 404</td>
<td>2 460</td>
<td>1 712</td>
<td>224</td>
<td>1 611</td>
<td>443</td>
<td>20 162</td>
</tr>
</tbody>
</table>

Table 2.4 Infections with HIV at birth (Source: Adapted from Dorrington. 2002. HIV/AIDS profile of the provinces of South Africa)
2.11.5. People living with HIV/AIDS

The estimates are that there were 6.5 million people in South Africa living with HIV/AIDS on 1 July 2002. Of these, over 6.1 million (95.1%) were in the age group 18-64 years. This is also the age group which is most likely to form part of the labour force. An estimated 3.2 million women of child-bearing age (15-49 years), were living with HIV/AIDS. This group accounted for around half (49.5%) of all infections. In all adult age groups, there were more women than men living with HIV/AIDS. The gender imbalance is most stark among youth, aged 15-24 years, where there were close on four infected young women for every infected young man. The numbers of children under the age of 15 years infected is relatively small when compared with the numbers for other age groups below the age of 65. The main source of infection for children is perinatal and mother’s milk, rather than the sexual transmission which is the main source for adults.

KwaZulu-Natal accounts for 27% of total infections, and between 25.7% and 27.6% of infections in all the adult groups. It accounts for 30% or more of infections among youth and children. Gauteng accounts for 22.4% of infections overall, and as much as 26.0% of infections among adult men aged 18-64 years. These patterns are more a reflection of the age and race profiles of the different provinces than the differences between the epidemic in the provinces. The patterns also affect the spread of the disease in each province in subsequent years.

<table>
<thead>
<tr>
<th>People living with HIV/AIDS</th>
<th>EC</th>
<th>FS</th>
<th>GT</th>
<th>KZ</th>
<th>LM</th>
<th>MP</th>
<th>NC</th>
<th>NW</th>
<th>WC</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total HIV infections</td>
<td>806 569</td>
<td>487 772</td>
<td>1 446 899</td>
<td>1 745 490</td>
<td>600 713</td>
<td>518 156</td>
<td>76 426</td>
<td>582 089</td>
<td>192 946</td>
<td>6 461 372</td>
</tr>
<tr>
<td>Adults (18-64)</td>
<td>758 570</td>
<td>467 542</td>
<td>1 404 473</td>
<td>1 639 263</td>
<td>562 178</td>
<td>490 228</td>
<td>75 612</td>
<td>556 640</td>
<td>187 073</td>
<td>6 141 578</td>
</tr>
<tr>
<td>Adult men (18-64)</td>
<td>316 231</td>
<td>244 344</td>
<td>782 996</td>
<td>775 787</td>
<td>251 296</td>
<td>241 951</td>
<td>35 883</td>
<td>287 988</td>
<td>79 604</td>
<td>3 016 800</td>
</tr>
<tr>
<td>Adult women (18-64)</td>
<td>442 338</td>
<td>223 197</td>
<td>621 477</td>
<td>863 475</td>
<td>310 882</td>
<td>248 277</td>
<td>39 729</td>
<td>266 652</td>
<td>107 499</td>
<td>3 125 498</td>
</tr>
<tr>
<td>Child bearing age</td>
<td>455 966</td>
<td>227 703</td>
<td>827 254</td>
<td>888 120</td>
<td>322 900</td>
<td>254 155</td>
<td>40 179</td>
<td>274 970</td>
<td>108 217</td>
<td>3 199 493</td>
</tr>
<tr>
<td>Women (15-49)</td>
<td>197 875</td>
<td>84 772</td>
<td>163 283</td>
<td>371 676</td>
<td>151 969</td>
<td>99 211</td>
<td>12 779</td>
<td>104 439</td>
<td>24 754</td>
<td>1 210 749</td>
</tr>
<tr>
<td>Youth (15-24)</td>
<td>38 213</td>
<td>17 802</td>
<td>35 814</td>
<td>85 742</td>
<td>34 426</td>
<td>21 835</td>
<td>2 556</td>
<td>22 256</td>
<td>4 144</td>
<td>263 069</td>
</tr>
<tr>
<td>Male Youth (15-24)</td>
<td>159 661</td>
<td>96 970</td>
<td>127 470</td>
<td>285 934</td>
<td>117 532</td>
<td>77 370</td>
<td>10 224</td>
<td>81 903</td>
<td>20 610</td>
<td>947 680</td>
</tr>
<tr>
<td>Female Youth (15-24)</td>
<td>29 018</td>
<td>12 776</td>
<td>31 488</td>
<td>68 208</td>
<td>23 204</td>
<td>18 379</td>
<td>1 904</td>
<td>15 839</td>
<td>4 327</td>
<td>205 134</td>
</tr>
</tbody>
</table>

Table 2.5 Provincial indicators – people living with HIV/AIDS (Source: Adapted from Dorrington, 2002. HIV/AIDS profile of the provinces of South Africa)
2.11.6. Prevalence rate

The prevalence rate is the percentage of a group who are infected at a particular point in time. Overall, in July 2002, the estimates are that 14.2% of people in South Africa were infected. The figure is as high as 18.4% in KwaZulu-Natal, and at a low of 4.2% in Western Cape. In all provinces except Western Cape and Northern Cape, more than one in every ten people is infected.

Prevalence is highest among women of child-bearing age, at 25.9% overall, and 34.5% in KwaZulu-Natal. Among those attending antenatal clinics, prevalence is predicted to be 29.0% for the country as a whole, and 38.7% in KwaZulu-Natal. Prevalence is much higher for female youth than male youth, at 21.6% and 5.8% respectively. Among adults, however, the gender difference varies between provinces. For the country as a whole, prevalence is marginally higher for adult women than adult men. However, prevalence is lower for women than men in Free State, Gauteng, KwaZulu-Natal and North West.

<table>
<thead>
<tr>
<th>Prevalence</th>
<th>EC</th>
<th>FS</th>
<th>GT</th>
<th>KZ</th>
<th>LM</th>
<th>MP</th>
<th>NC</th>
<th>NW</th>
<th>WC</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population</td>
<td>11.3</td>
<td>16.7</td>
<td>15.0</td>
<td>18.4</td>
<td>11.0</td>
<td>10.9</td>
<td>7.9</td>
<td>15.1</td>
<td>4.2</td>
<td>14.2</td>
</tr>
<tr>
<td>Adults (18-64)</td>
<td>20.5</td>
<td>25.5</td>
<td>23.8</td>
<td>31.4</td>
<td>26.9</td>
<td>28.1</td>
<td>12.9</td>
<td>24.8</td>
<td>6.7</td>
<td>23.4</td>
</tr>
<tr>
<td>Adult men (18-64)</td>
<td>13.0</td>
<td>27.4</td>
<td>25.6</td>
<td>31.6</td>
<td>20.2</td>
<td>28.0</td>
<td>12.4</td>
<td>25.7</td>
<td>5.8</td>
<td>23.3</td>
</tr>
<tr>
<td>Adult women (18-64)</td>
<td>21.9</td>
<td>25.5</td>
<td>21.9</td>
<td>31.3</td>
<td>21.5</td>
<td>28.2</td>
<td>13.4</td>
<td>23.9</td>
<td>7.6</td>
<td>23.5</td>
</tr>
<tr>
<td>Child bearing age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Women (15-49)</td>
<td>23.8</td>
<td>28.3</td>
<td>25.0</td>
<td>34.5</td>
<td>22.7</td>
<td>30.2</td>
<td>14.8</td>
<td>26.3</td>
<td>8.4</td>
<td>25.9</td>
</tr>
<tr>
<td>Youth (15-24)</td>
<td>12.5</td>
<td>15.6</td>
<td>13.0</td>
<td>19.7</td>
<td>12.1</td>
<td>15.9</td>
<td>6.7</td>
<td>14.4</td>
<td>3.3</td>
<td>13.7</td>
</tr>
<tr>
<td>Male Youth (15-24)</td>
<td>4.9</td>
<td>6.7</td>
<td>5.9</td>
<td>9.1</td>
<td>5.3</td>
<td>7.0</td>
<td>2.7</td>
<td>6.4</td>
<td>1.1</td>
<td>5.8</td>
</tr>
<tr>
<td>Female youth (15-24)</td>
<td>20.1</td>
<td>24.1</td>
<td>19.8</td>
<td>30.2</td>
<td>19.4</td>
<td>25.0</td>
<td>10.6</td>
<td>22.2</td>
<td>5.5</td>
<td>21.6</td>
</tr>
<tr>
<td>Antenatal clinics</td>
<td>26.6</td>
<td>32.6</td>
<td>29.8</td>
<td>38.7</td>
<td>22.3</td>
<td>33.1</td>
<td>17.2</td>
<td>27.7</td>
<td>11.4</td>
<td>29.0</td>
</tr>
</tbody>
</table>

Table 2.6 Provincial indicators – HIV Prevalence rate (Source: Adapted from Dorrington. 2002. HIV/AIDS profile of the provinces of South Africa)
2.11.7. Incidence rate
The incidence rate is the percentage of people who are uninfected at the beginning of the period who will become infected over the twelve months. It is a better measure of where we are in the epidemic than prevalence. For the total population, the incidence rate is estimated to be 2% for the twelve months starting 1 July 2002, and has peaked in all provinces. The incidence rate is highest for new births, at 6%. It is next highest for babies in their first year who become infected primarily through mother’s milk. Although KwaZulu-Natal has the highest prevalence rates, its incidence rates are not the highest. For example, the incidence of infection in Free State is higher than that in KwaZulu-Natal for all age groups except babies. Western Cape has the lowest incidence rates for all age groups.

![Table 2.7](image)

Table 2.7 Provincial indicators – HIV incidence rate (Source: Adapted from Dorrington. 2002. HIV/AIDS profile of the provinces of South Africa)

2.11.8. Stages of infection
A person who is HIV-positive typically passes through several stages of infection. The table below shows the proportion of those infected in each of four stages according to the WHO staging system. Those in stages 1 and 2 will be relatively asymptomatic, those in stage 3 will be suffering weight loss and bouts of illness from opportunistic infections, and those in stage 4 will have full-blown AIDS. Typically, a person not receiving treatment will die within a year to a year and a half of reaching this stage 4. Overall, 55% of all infected people in South Africa were in the first stage in July 2002, with a further 20% in the second stage, 18% in the third stage, and 7% having full-blown AIDS. Thus about 75% are asymptomatic, which explains why so few of the people who
are infected know they are infected. In those provinces with more advanced epidemics, the percentages in the early stages are close to 50%. On the other hand, in Western Cape, Eastern Cape, Northern Cape and Limpopo, more than 60% of infected people are in the first stage.

<table>
<thead>
<tr>
<th>Stages of infection</th>
<th>EC</th>
<th>FS</th>
<th>GT</th>
<th>KZ</th>
<th>LM</th>
<th>MP</th>
<th>NC</th>
<th>NW</th>
<th>WC</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>% in stage 1</td>
<td>62%</td>
<td>55%</td>
<td>54%</td>
<td>50%</td>
<td>61%</td>
<td>51%</td>
<td>62%</td>
<td>56%</td>
<td>63%</td>
<td>55%</td>
</tr>
<tr>
<td>% in stage 2</td>
<td>18%</td>
<td>20%</td>
<td>21%</td>
<td>21%</td>
<td>19%</td>
<td>20%</td>
<td>18%</td>
<td>20%</td>
<td>18%</td>
<td>20%</td>
</tr>
<tr>
<td>% in stage 3</td>
<td>15%</td>
<td>18%</td>
<td>19%</td>
<td>21%</td>
<td>15%</td>
<td>20%</td>
<td>15%</td>
<td>18%</td>
<td>15%</td>
<td>18%</td>
</tr>
<tr>
<td>% in stage 4</td>
<td>5%</td>
<td>7%</td>
<td>7%</td>
<td>6%</td>
<td>5%</td>
<td>6%</td>
<td>5%</td>
<td>6%</td>
<td>5%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Table 2.8 Provincial indicators – stages of infection (Source : Adapted from Dorrington. 2002. HIV/AIDS profile of the provinces of South Africa)

2.11.9. People who are sick with AIDS
As mentioned above, AIDS represents the last stage of HIV infection. The next table shows, for each province, the estimated number of new AIDS cases occurring in 2002, as well as the total estimated number of people who are sick with AIDS, i.e. in stage 4, on 1 July 2002. For all provinces, the number of new AIDS cases during the year is only a little less than the number of total AIDS sick at mid-year; this is because people in this stage usually do not survive much more than a year after becoming AIDS sick, unless they receive treatment.

<table>
<thead>
<tr>
<th>AIDS sick</th>
<th>EC</th>
<th>FS</th>
<th>GT</th>
<th>KZ</th>
<th>LM</th>
<th>MP</th>
<th>NC</th>
<th>NW</th>
<th>WC</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>New AIDS sick</td>
<td>35 796</td>
<td>28 290</td>
<td>87 727</td>
<td>113 541</td>
<td>27 859</td>
<td>33 513</td>
<td>3 598</td>
<td>32 673</td>
<td>8 908</td>
<td>371 907</td>
</tr>
<tr>
<td>over the year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total AIDS sick</td>
<td>37 011</td>
<td>31 111</td>
<td>95 521</td>
<td>128 979</td>
<td>29 108</td>
<td>39 156</td>
<td>3 628</td>
<td>35 293</td>
<td>9 307</td>
<td>409 113</td>
</tr>
<tr>
<td>mid-year</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2.9 Provincial indicators – people sick with AIDS (Source : Adapted from Dorrington. 2002. HIV/AIDS profile of the provinces of South Africa)
2.11.10. Deaths

Without therapy HIV/AIDS is invariably fatal. In 2002, AIDS will account for two-fifths (40%) of all deaths. In KwaZulu Natal (52%) and Mpumalanga (51%), it will account for over half of all deaths. At July 2002, AIDS would have resulted in over 688 000 deaths in the country. Approximately a third (34%) of these deaths will have occurred in KwaZulu Natal, and 20% in Gauteng.

<table>
<thead>
<tr>
<th>Deaths</th>
<th>EC</th>
<th>FS</th>
<th>GT</th>
<th>KZ</th>
<th>LM</th>
<th>MP</th>
<th>NC</th>
<th>NW</th>
<th>WC</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-AIDS death</td>
<td>64</td>
<td>25</td>
<td>72</td>
<td>76</td>
<td>41</td>
<td>23</td>
<td>8</td>
<td>22</td>
<td>24</td>
<td>396</td>
</tr>
<tr>
<td>over the year</td>
<td>875</td>
<td>320</td>
<td>936</td>
<td>993</td>
<td>006</td>
<td>906</td>
<td>681</td>
<td>227</td>
<td>004</td>
<td>538</td>
</tr>
<tr>
<td>AIDS deaths over the</td>
<td>27</td>
<td>19</td>
<td>56</td>
<td>82</td>
<td>21</td>
<td>24</td>
<td>2</td>
<td>22</td>
<td>5</td>
<td>59</td>
</tr>
<tr>
<td>year</td>
<td>125</td>
<td>173</td>
<td>414</td>
<td>373</td>
<td>306</td>
<td>483</td>
<td>397</td>
<td>127</td>
<td>004</td>
<td>337</td>
</tr>
<tr>
<td>Accumulated AIDS</td>
<td>67</td>
<td>48</td>
<td>130</td>
<td>231</td>
<td>55</td>
<td>71</td>
<td>5</td>
<td>56</td>
<td>14</td>
<td>688</td>
</tr>
<tr>
<td>deaths mid-year</td>
<td>715</td>
<td>766</td>
<td>249</td>
<td>265</td>
<td>190</td>
<td>424</td>
<td>455</td>
<td>407</td>
<td>195</td>
<td>483</td>
</tr>
</tbody>
</table>

Table 2.10 Provincial indicators – HIV/AIDS deaths (Source: Adapted from Dorrington. 2002. HIV/AIDS profile of the provinces of South Africa)

2.11.11. Mortality statistics

By causing additional deaths, HIV/AIDS impacts on mortality statistics. In 2002, the infant mortality rate is 59 per 1 000 live births for the country as a whole, while the child mortality rate – the number of children per 1 000 births who die before reaching age five – is 100. Adult mortality as measured by the probability that a person aged 15 will not reach the age of 60 years ($q_{15}$) is 43% for women, 56% for men, and 50% for both sexes combined. Male life expectancy at birth is 50 years while female life expectancy is 55 years. On each of the mortality measures except infant mortality, KwaZulu-Natal performs worse than all other provinces while Western Cape performs best on all measures.

All the mortality measures show a marked increase over the last few years. For example, in 1990 the infant mortality rate was estimated to be 52 per 1 000 births, childhood mortality stood at 71 per 1000, adult mortality was 30% and life expectancy was over 61 years.
### Mortality statistics

<table>
<thead>
<tr>
<th></th>
<th>EC</th>
<th>FS</th>
<th>GT</th>
<th>KZ</th>
<th>LM</th>
<th>MP</th>
<th>NC</th>
<th>NW</th>
<th>WC</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Infant mortality rate</strong></td>
<td>72</td>
<td>63</td>
<td>46</td>
<td>68</td>
<td>53</td>
<td>59</td>
<td>46</td>
<td>56</td>
<td>30</td>
<td>59</td>
</tr>
<tr>
<td><strong>Child mortality rate</strong></td>
<td>112</td>
<td>106</td>
<td>82</td>
<td>124</td>
<td>87</td>
<td>106</td>
<td>72</td>
<td>95</td>
<td>46</td>
<td>100</td>
</tr>
<tr>
<td><strong>Adult mortality</strong></td>
<td>46%</td>
<td>515</td>
<td>47%</td>
<td>59%</td>
<td>46%</td>
<td>56%</td>
<td>38%</td>
<td>49%</td>
<td>33%</td>
<td>50%</td>
</tr>
<tr>
<td><strong>Adult male mortality</strong></td>
<td>51%</td>
<td>57%</td>
<td>53%</td>
<td>64%</td>
<td>53%</td>
<td>62%</td>
<td>44%</td>
<td>56%</td>
<td>39%</td>
<td>56%</td>
</tr>
<tr>
<td><strong>Adult female mortality</strong></td>
<td>39%</td>
<td>44%</td>
<td>40%</td>
<td>53%</td>
<td>40%</td>
<td>50%</td>
<td>32%</td>
<td>43%</td>
<td>26%</td>
<td>43%</td>
</tr>
<tr>
<td><strong>Life expectancy</strong></td>
<td>53.5</td>
<td>51.7</td>
<td>54.8</td>
<td>47.5</td>
<td>54.4</td>
<td>49.5</td>
<td>56.8</td>
<td>50.3</td>
<td>59.3</td>
<td>49.9</td>
</tr>
<tr>
<td><strong>Male life expectancy</strong></td>
<td>51.1</td>
<td>49.4</td>
<td>52.2</td>
<td>45.9</td>
<td>51.8</td>
<td>47.6</td>
<td>56.8</td>
<td>50.3</td>
<td>59.3</td>
<td>49.9</td>
</tr>
<tr>
<td><strong>Female life expectancy</strong></td>
<td>56.0</td>
<td>54.1</td>
<td>57.4</td>
<td>49.2</td>
<td>57.0</td>
<td>51.4</td>
<td>61.9</td>
<td>55.2</td>
<td>66.1</td>
<td>55.0</td>
</tr>
</tbody>
</table>

Table 2.11 Provincial indicators – mortality statistics (Source: Adapted from Dorrington. 2002. HIV/AIDS profile of the provinces of South Africa)

#### 2.11.12. Maternal orphans

Defining an orphan as a person under the age of 18 years whose mother has died, it is estimated that there were over 885 000 orphans in South Africa in July 2002. Of the overall total, 38% would have been orphaned as a result of AIDS. In Mpumalanga and KwaZulu-Natal, approximately half of all maternal orphans were orphaned as a result of AIDS. KwaZulu-Natal and Gauteng between them currently account for over half (53%) of all AIDS orphans. Although it is common practice to use age 15 as the limit, using age 18 gives a better measure of the burden to be borne by the provinces. For comparative purposes we have used age 15 in the individual provincial profiles later.

During the year starting 1 January 2002, over 204 000 children will be newly orphaned. In all provinces except Western Cape, more than half of all orphans are due to AIDS. Overall, AIDS will account for close on three-quarters (73%) of all new orphans. It will account for 81% of the new orphans in KwaZulu-Natal.
2.12. SUMMARY

The Acquired Immune Deficiency Syndrome (AIDS), was first recognised as a specific condition in 1981. The cause of AIDS, the Human Immunodeficiency Virus (HIV), was only identified in 1984 (Loewenson & Whiteside, 1997: 5; Gathiram, 2000). The virus has since alluded all attempts to find a cure or vaccine and thus prognosis for those affected remains bleak.

The virus may enter the body via sexual intercourse and, to a lesser extent, by sharing of unsterilised needles amongst drug users (World Bank, 2003:17). Once in the body the virus may remain dormant for many years. It is this incubation period that the chances of infection of others increases significantly as an infected person may unknowingly pass on this pestilence to a sexual partner or fellow drug user.

The HIV/AIDS pandemic had by the end of 2002 resulted in the infection of over 42 million people worldwide. The estimated number of adult and children deaths due to HIV/AIDS during 2002 is 3.1 million. The spine chilling estimate is that in 2002 the number of adults and children newly infected with HIV was 5 million. The infection rate is clearly not decreasing.

Of the total global HIV infected population of approximately 42 million, 29.4 million reside in Sub-Sahara Africa. Simplistically 70% of the global population estimated to be living with HIV/AIDS in 2002 are from Sub-Sahara Africa. Consequently Sub-Sahara Africa can be termed the epicentre of the pandemic. Within this framework of infection rates, KwaZulu Natal, has emerged as the fore-runner for new infections in South Africa.

South Africa has never experienced an epidemic of the magnitude of the HIV/AIDS epidemic. The routine surveillance conducted by the Department of Health has shown that among pregnant women attending public health clinics for antenatal care, the prevalence has increased from less than 1% in 1990 to 25% in 2001. The rapid mortality surveillance system established by the Burden of Disease Unit of the Medical Research Council (MRC) and Centre for Actuarial Research at the University of Cape Town
(UCT) has shown that there has been an increase in young adult mortality and that since the year 2000, AIDS had become the biggest single cause of death.

Nationally it is estimated that 6.5 million people were infected with HIV in the year 2002. The total number of people infected with HIV is reaching its peak, which is the natural course of the epidemic. This is because the number of new infections has slowed down and because people who are infected are dying. Incidence, the number of people who are newly infected, peaked in about 1998 and has begun to decrease. However, the number of people dying from AIDS each year has only now started to increase. Without interventions to reduce mortality, it will peak in about 2010. In turn, this mortality will result in increasing numbers of children who are orphaned. The number of maternal orphans who are under 15 years of age will peak in about 2015.
CHAPTER 3 – ECONOMIC IMPACT OF HIV/AIDS

3.1. INTRODUCTION

The adverse economic impact of HIV/AIDS is becoming increasingly evident. In high-prevalence countries the growth rates of gross domestic product are slowing down, the manpower losses in key sectors are mounting, the number of orphans is increasing and household poverty is deepening. These countries are facing the formidable challenge of mitigating the economic impact of HIV/AIDS.

There are three important contributory reasons for this:

• First, the paucity of data precludes recognition of the extent of the impact of the epidemic and its economic cost. 20 years into the pandemic, reliable data on prevalence, infection and impact remains hard to come by. Relative to the steady spread of the disease into the new century, available studies and data are remarkably outdated while more routine economic research is comparatively insensitive to HIV/AIDS issues.

• Second, existing levels of systemic dysfunction are often so endemic in high-prevalence countries that they mask the real impact of the disease until it is too late. Even informed high HIV/AIDS prevalence countries apparently remain unconvinced of the longer term impact, and have not yet developed strategies to cope with the obvious and incontrovertible impact of HIV/AIDS, such as the increase in the number of orphans and decline in the size of the labour force.

• And third, much of the responsibility for national HIV/AIDS mobilization and response is vested in the health sector, leading to the assumption that it is a passing health issue.
Economic Impact - A Vicious Cycle:

This section makes three points.

First, that HIV/AIDS has an impact at all levels of the economic system - macro, meso and household - and these interrelated impacts feed on each other to create a vicious cycle.

Second, HIV/AIDS impact at all levels is evidenced by three main indicators:

- The loss of manpower and skills;
- Changes in the population structure and the erosion of whole production and consumption bands, with consequent distortion of resource allocation due to changes in demand for goods and services;
- Deterioration in management capacity and governance.

And third, the most direct impact of HIV/AIDS mortality and morbidity is at the household level, the base building blocks of the economy. It reduces their ability to work, generate adequate income, save and invest, and increases their dependency on the state. These factors change the extent and nature of demand for the services and output of different sectors such as agriculture, education and health, and will place unprecedented strain on social service delivery. In addition, the lead-time involved in replacing skilled manpower losses due to HIV/AIDS and the associated loss of experience and institutional memory, will reduce sectoral capacity to produce goods and services and meet the needs of households and the macro-economy. This will in turn reduce or slow economic growth. This vicious cycle constrains the ability of the system to reduce household poverty, as the following chart will illustrate:
The destructive erosion of HIV/AIDS is not occurring on neutral ground: Its advent coincides with a number of complicating socio-economic and development factors, and its primary impact is to exacerbate these as well as existing and residual levels of societal and sectoral dysfunction. The assumption that technology alone may resolve these problems is also misleading and requires instead a systematic process of training and empowerment, based on need, rather than simple supply-driven interventions. Indeed, the move to technology enhanced economic growth has slowed, and in some sectors obliterated job creation in the developing world, providing an uncomfortable reminder that development has its costs. Globalisation and changing trade dynamics too have contributed significantly in some developing economies to deepening poverty and unemployment, and economic gaps may in fact be widening along these fracture lines, further stressing the micro and meso economy.
3.2. EVIDENCE OF THE IMPACT OF HIV/AIDS

A key failure both within the sectors involved and those development agencies that support them has been the lack of attention to the collection of data and development of management information systems. Few systematic studies have been carried out on the impact of HIV/AIDS at the household, sector or macro levels and this failing has contributed in large measure to the lack of awareness and understanding in sectoral management – often misinterpreted as denial. Due to limited number of impact assessments the same evidence is quoted over and over by different authors. While quantitative *estimates* of impact are available for the increase in orphan numbers, the decrease in the size of the labour force, increased mortality rates and changes in size, age and structure of the population, these are often not taken seriously by sectoral management. These estimates can and should provide the basis for developing systematic management and mitigation strategies but in many high-prevalence countries still require the evidence of hard data to make the case for intervention.

3.2.1. Household Impact:

Apart from the loss of breadwinners and the growing realization of reduced life expectancy, the most serious issue for the household, the community and society as a whole, is the increase in the number of orphans. As illustrated in the following chart (Figure 3.2), the percentage of orphaned children in selected high-prevalence countries increased from 2% in 1980 to 15-17% in 2000, and will increase to almost 20-30% in 2010. In South Africa, for example, figures suggest that one in five children of school-going age will be orphaned by 2010, rising in some higher-prevalence provinces to one in four.
In these high-prevalence countries, almost three-quarters of the households in the community take in and care for orphans, reducing their own consumption per head as well as their ability to save and invest. The burden of this large number of orphans is sending shock-waves through the communities concerned: Africa’s traditional extended family system, exemplary at absorbing members under stress, is confronted with impact on every constituent part of its network and may reach breaking point without some assistance. The ability of these emerging populations to absorb this level of stress is limited, given that they function off a very low – often non-existent – social security base to begin with. Adding the impact of HIV/AIDS to this strain may have the effect of not only accelerating the reversal of development gains but of fragmenting the very societal structure that has so far sustained marginal societies.
Thus, HIV/AIDS may generate a new class of poor and push those who are already living at the margin closer to the edge. ‘In Zambia, for example, AIDS led to a rapid transition from relative wealth to relative poverty in many households. In two-thirds of families, when the father died monthly disposable income fell by more than 80%.

3.2.2. Sectoral Impact:
While most of the sectoral assessments available are confined to the impact such inputs as labour, financial resources and management capacity, analysis on HIV/AIDS impact on output or outcomes is rare. However, estimates of the decline in labour force size, a few ad hoc studies on the loss of specialized skills and some anecdotal evidence of impact on management capacity are available, and are mentioned below. This is not an exhaustive inventory but shows the magnitude of the problems, which are illustrated by the following points:

3.2.2.1. Labour Force:
According to data from the ILO and the UN Population Division, about 10% to 30% of the labour force in identified high-prevalence countries will be lost during the next 15 years, necessitating a major overhaul of development strategy and process thinking:

<table>
<thead>
<tr>
<th>Country</th>
<th>By 2005</th>
<th>By 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botswana</td>
<td>-17.2</td>
<td>-30.8</td>
</tr>
<tr>
<td>Lesotho</td>
<td>-4.8</td>
<td>-10.6</td>
</tr>
<tr>
<td>Malawi</td>
<td>-10.7</td>
<td>-16.0</td>
</tr>
<tr>
<td>Mozambique</td>
<td>-9.0</td>
<td>-24.9</td>
</tr>
<tr>
<td>Namibia</td>
<td>-12.8</td>
<td>-35.1</td>
</tr>
<tr>
<td>South Africa</td>
<td>-10.8</td>
<td>-24.9</td>
</tr>
<tr>
<td>Tanzania</td>
<td>-9.1</td>
<td>-14.6</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>-19.7</td>
<td>-29.4</td>
</tr>
</tbody>
</table>

Table 3.1 Southern Africa Labour Force Losses due to HIV/AIDS (%)
Source: Africa Recovery and United Nations
3.2.2.2. Loss of specialized skills:

**Education:** According to a report by the World Bank, HIV/AIDS is killing teachers faster than nations can train them, undermining an international effort to enrol all children in school by 2015 and confirming the redundancy of many well-intentioned declarations in the AIDS-era. The report states that in parts of Uganda and Malawi, nearly a third of all teachers are HIV-positive. In Zambia, teacher deaths nearly doubled, to 1,300 in the first 10 months of 1998 from 680 in 1996. In the Central African Republic, 85% of the 340 teachers who died between 1996 and 1998 had AIDS, and vanished from their classrooms an average of 10 years before they would have normally retired.

The HEARD Mobile Task Team on the impact of HIV/AIDS on education has found that HIV/AIDS exacerbates existing high attrition rates. In the KwaZulu Natal province of South Africa their research suggests that the impact of HIV/AIDS on an existing attrition rate of 7% (in 1999) will require the replacement of almost 70 000 of 75 000 teachers in service by 2010. The South African Democratic Teachers Union, SADTU, has evidence that the average age of death for teachers in the same province has now declined to just 36, suggesting the need for a complete policy revision in respect of dramatically shortening pre-service training.

**Health:** Estimates based on different stages of the epidemic suggest that a country with a stable 15% prevalence rate can expect that each year between 1.6% and 3.3% of its healthcare providers will die from AIDS. Given that antenatal HIV prevalence rates range between 19% and 32% across high prevalence southern African countries, the implications will be obvious, not least because the health sector also seems convinced that HIV/AIDS is a health issue. It is also important to recognize that HIV/AIDS impact is variable over a given area and that these averages mask the extent of impact in certain hospitals and clinics.

**Agriculture:** In Malawi, death rates among employees of the Ministry of Agriculture and Irrigation have doubled, almost all because of HIV/AIDS. In Namibia, studies indicate that agricultural extension workers spend a tenth of their time attending funerals.
Mining: Approximately 25% of miners in South Africa are living with HIV/AIDS, according to the country’s Medical Research Council, which expects this to increase to 30% by 2005. In neighbouring Botswana, with the continent’s highest prevalence rate, data produced by HEARD indicates a comparative rate of over 30% in 2001.

Natural Resource Management: The Forestry Department of Kenya has estimated that since 1988 it has lost an average of 36 employees a year (2-4 employees/month) due to HIV/AIDS. Environment professionals such as wildlife veterinarians, silviculturalists and plant pathologists are highly educated professionals, with the cost of training replacement personnel as high as R 300 000 per person.

Budget and Management:
The budget and management constraints are made worse due to HIV/AIDS:
Capital and Recurrent Budget Imbalance: Many sectors have little to spend on capital projects because of recurrent commitments and this will worsen as HIV/AIDS inflates health care, training and replacement costs in the recurrent budget. The education sector routinely budgets between 90% and 95% on teacher salaries alone, leaving little to reduce backlogs and address capital needs. The cost of teacher training in South Africa, involving a four-year degree track, may run to between three and four times the cost of building a modern classroom, for example. In spite of comparatively high remuneration for qualified teachers, competition for these skills is intensifying as the private sector seeks to replace its own AIDS losses and puts pressure on increasing wage demands.

Increasing Expenditure Bottlenecks: Inadequate absorption capacity at all levels of the sectoral system leads to under-spending and rollovers; this may also be true of external (donor agency) funds placed in sectoral hands. Loss of skills (permanent and temporary) will lead to capacity failure at all levels while mid- and local-level structures may collapse and lose yet more of their capacity to receive and disburse. The perennial rollover of unspent sectoral funds also has the effect of persuading the finance sector that HIV/AIDS projections are unfounded given the inability of the sectors concerned to spend the money.
Management – Human Resource Shortages: The shortage of skilled and experienced decision-makers is growing at all levels of the system both for reasons of AIDS-mortality and increased recruitment by the private sector. While many sectors are seen to be ‘personnel-heavy’ (evidenced by the share of recurrent budget) there remains a limited pool of top managers; HIV/AIDS will reduce the number of candidates for entry into this pool and create pressure for extension of service. There may also be an increasing gulf between the attitudes and value-systems of older managers and the influx of much younger entrants to their ranks, due to evident losses in the group 35 to 50.

Planning and Projection Problems: The inability to calculate and project basic demand and supply equations and model a sustained response has long been evident at the sectoral level. There is a limited culture of decision-making informed by hard data and information, and planning is all too often based on political agendas and promise. The lack of functional management information systems compounds this problem, as does the uncertainty about the value of HIV/AIDS indicators. Informed planning and adequate data collection holds the key to management response and mitigation.

Training Under-Provision or Inadequacy: Failure to provide for appropriately trained replacement stock to meet system demand is the issue. Combined with a lack of informed planning, the failure to adequately project demand for new personnel and factor competition from other quarters could paralyse a given sector. The additional problem of training for entry into the ‘emergency’ environment of the HIV/AIDS era must be faced, including the prospect of dramatically foreshortening pre-service training time and having to provide additional levels of in-service support.
3.2.3. Macro or National Level Impact

African economies could be devastated by the forecast 10 million AIDS-deaths in southern Africa over the next 15 years. The apparent high mortality rate among the 15-29 age group and women in particular has profound implications for the provision of services and related productivity.

The SADC's Regional Human Development Report for 2002, estimated that the potential loss of 6.3 million lives from 1995 to 2005 would slash the gross domestic product (GDP) in countries across the region. It reported that Zambia's GDP had, for example, already fallen by an estimated 8% in 2002 as a direct result of HIV/AIDS.

The UN Development Program (UNDP), in its Botswana Human Development Report, cites government studies showing that HIV/AIDS will result in GDP being between 24% and 38% lower by 2021. It also predicted that in 25 years, GDP could be 40% lower than without HIV/AIDS.

UNAIDS has estimated that when HIV prevalence rates rise to more than 20%, gross domestic product (GDP) in the countries affected can be lowered by as much as 2% a year. In South Africa, the investment bank ING Barings has projected that HIV/AIDS could drag down GDP by 0.3-0.4 percent a year. Another study has indicated that by the end of the decade, AIDS could have reduced South Africa's GDP by 17%, or the equivalent of $22 billion.

HIV/AIDS also exacerbates the systems' inability to allocate and utilize resources in an optimal manner. For example, HIV/AIDS direct and indirect impact on the macro-economy and sectoral budgets will increase the problem of lack of capital and/or recurrent budget at a national or sectoral level through diversion and increased consumption in competing sectors. Similarly, limited numbers of competent financial managers are already under stress and their numbers may be thinned further, with performance compromised by personal and institutional circumstances.
3.3. CONCLUSION

This section concludes that:

- The vicious cycle of low growth, unemployment, low social and economic status, depression and poverty will become increasingly virulent over the coming years as HIV/AIDS mortality and morbidity spirals in high prevalence countries. The dysfunctionality of current systems, the lack of sustainable management capacity and the inefficiency of allocation and resources utilization at every level of the economy – macro, meso and micro – are likely to paralyse public and private systems as they operate at the margin of collapse.

- The key point of departure is to accept and understand HIV/AIDS as a systemic management challenge rather than a public health problem. HIV/AIDS will impact every aspect of systemic functioning, over the long-term, and will exacerbate existing problems of capacity and sustainability. To respond strategically to this challenge it is necessary to move beyond the continuum of awareness, prevention and care and frame a management approach that uses hard data and appropriate indicators to inform decision-making. The objective should be to mitigate – at all levels, and in all sectors – by managing better and focusing on those issues that both drive and impede the economy.

- The time required to replace increasing manpower losses and associated effects, including the loss of experience and institutional memory, reinforces the need to take urgent action to mitigate HIV/AIDS impact and prevent countries from accelerating deeper into the vicious economic cycle. Thus rapid response is essential.
Chapter 4 - HIV/AIDS AND THE LAW

4.1. INTRODUCTION

The law remains an important regulating factor in the lives of citizens in any country. Laws are sets of rules that govern the way people behave. A business response to HIV/AIDS is therefore driven, in part, by a legal framework. It is this framework that requires businesses to act in certain ways with regard to HIV/AIDS in the workplace. Apart from the constraints and the boundaries in which a business may operate within, law seeks to entrench particular human rights. Workers are fearful of human violations (as a result of the stigma which surrounds this disease) and law is designed, in principle, to address these concerns.

To date, there are approximately 6.5 million people living with HIV in South Africa. Yet the threat of human violations, and most notably – discrimination, makes many people afraid to be tested for HIV and they fear disclosure of their HIV status, even to close friends and family. Sadly, this means that there is little openness about HIV, which adds to the stigma and misconception.

It is notable that this epidemic is having a greater effect on the economically active population (i.e. those people who are employable). Employees are often not aware of their rights as individuals and rely on the integrity of the employer or trade unions too ensure that their rights are not violated. Employees can experience HIV – related discrimination from employers, supervisors or even fellow employees. It is to this extent that employees need to know and understand the law on HIV/AIDS to challenge both discrimination and abuse, which might be prevalent in the workplace.

Laws are passed to protect employees from acts of discrimination and abuse and so it becomes important to understand what these laws are, how they work and then how an employee can stand up for his/her rights in the workplace.
This chapter provides a step-by-step guide through the law, looking at how it regulates the action of both employers and employees with reference to HIV/AIDS. The Constitution together with labour law as well as chosen case law, is discussed to give the reader an indication as to what law governs an employer’s and an employee’s actions, and the responsibilities borne by both.

Furthermore this chapter also looks at the Labour Relations Act, the Employment Equity Act, the Occupational Health and Safety Act, the Compensation for Occupational Injuries and Diseases Act, Basic Conditions of Employment Act, the Medical Schemes Act as well as discussing International and Foreign law, while bringing in relevant case law under the applicable Acts.

The Labour Court and other statutory bodies that arbitrate on employment disputes are considered from the following legal bases:

- the Constitution, which is based upon the principle of equality for everyone in South Africa.
- Labour Law together with case law which are established in the Labour Courts, the Commission for Conciliation, Mediation and Arbitration (CCMA) and the old Industrial Courts, and which follow the principles of non-discrimination, fair labour practices and the reasonable rights and duties of employers and employees.
- the latest scientific and medical knowledge about HIV/AIDS, especially that:
  - HIV cannot be transmitted by casual contact between people at work.
  - People with HIV are usually as healthy and productive as employees who are not infected.
4.2. THE CONSTITUTION

The South African Constitution (Act 108 of 1996) is the supreme law of the country and all other laws must comply with the Constitutional provisions. The Bill of Rights within the Constitution sets out a number of provisions, which protect the rights of employees. The Bill of Rights is the foundation of the South African democracy. This is because all people have these rights and they must be respected by Parliament, different levels of government, the courts, private organisations (such as companies) and individuals.

One of the most important rights entrenched in this Bill, is the right to equality, often referred to as “the Equality Clause”. Under the constitution equality denotes that everybody shares the fundamental rights and freedom that are listed in the Bill of Rights. The Equality clause lists 17 grounds for non-discrimination. The Equality clause and the Equality Act (law introduced by the state to enforce equality – full name is Promotion of Equality and Prevention of Unfair Discrimination Act – Equality Act for short) state that you cannot discriminate against someone using grounds that are not listed. It prohibits discrimination based on ‘other’ grounds that may not be listed, but which are used unfairly with the purpose to discriminate – such as HIV infection. The constitution reaffirms this premise. Accordingly the state is required by the constitution to substantiate this right. The **Promotion of Equality and Prevention of Unfair Discrimination Act of 2000** was passed (Equality Act) is one such attempt.

The Equality Clause and the Equality Act can protect people living with HIV or AIDS in a number of ways:

- HIV/AIDS may be interpreted as a disability.
- HIV/AIDS may be added to new laws as a separate listed ground for non-discrimination.
- HIV/AIDS may be treated as an “other ground”.

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4.2.1. HIV/AIDS as a Disability

HIV or AIDS is not listed specifically in the Equality Clause as a ground for non-discrimination. However, it is stated clearly that no one may discriminate on the grounds of a person’s disability.

It is important to note that disability does not equal incapacity as the latter refers to a person who is unable to fulfil a particular function. There is an argument that HIV should be protected under the Equality Clause and the Equity Act on the grounds that it is a debilitating disease because:

• people with HIV have a medical condition that may affect their day-to-day activities even when they do not look or feel ill.
• people with HIV, or people who are thought to have HIV, often face discrimination that makes it more difficult for them to live and work together with other people. They face social barriers because of fear and prejudice about their condition.

This is not a new concept. The United States as well as a number of other countries have supported the idea that asymptomatic HIV and AIDS should be protected as a disability. In the case of Bragon v Abbot, the United States Supreme Court decided that HIV is a protected disability and that people with HIV have a right to anti-discrimination protections under the Americans with Disabilities Act of 1990.

4.2.2. HIV/AIDS as a ground for non-discrimination in the Equality Act

The Equality Act recognizes that “HIV/AIDS status” can lead to discrimination. The Employment Equity Act states that no one may discriminate on the grounds of an individual’s HIV status.

There are strong reasons for HIV to be treated as separate listed ground (included in the list of established grounds which consist of race, creed, religion ethnic group etc) for non-discrimination under the Employment Equity Act (EEA). They include:

• HIV/AIDS is a national epidemic that affects an increasingly large number of people in South Africa.
• people living with or affected by HIV or AIDS face a wide range of unfair discrimination and stigmatisation in all aspects of life, and the Equality Act should recognize this to ensure non-discrimination on the basis of HIV/AIDS.

• by making HIV status a separate prohibited ground, it is easier for a person living with HIV or AIDS to show in a court of law that they were unfairly discriminated against. The applicant would need to prove that there was discrimination while the respondent would repudiate these claims.

• A person living with HIV or AIDS could claim they were unfairly discriminated against on:
  - The grounds of HIV status, or
  - On the grounds of disability.

4.2.3. HIV/AIDS as an ‘Other Ground’

Both the Equality Clause and the Employment Equity Act prohibits unfair discrimination on the basis of ‘other grounds’. This is any ground, which has not been explicitly stated within the above Clause or Act. In the case of Harksen v Lane and others the Constitutional Court developed a good test for deciding whether a person had been unfairly discriminated against on any grounds, including a ground that was not specifically listed in the Equity Clause. The Court said: “The right to equality is violated whenever a person is treated differently in a way that is unfair discrimination”.

The test for unfair discrimination is as follows:

1. the applicant must show that they were treated in a way that was different from others.
2. if a person was treated differently on a listed ground for non-discrimination (e.g. gender), then the court will accept that there was discrimination. The onus then lies with the respondent to prove that the discrimination was fair.
3. if the applicant was treated unfairly on the basis of his/her HIV status then he/she must show that the basis for differential treatment might seriously harm his/her sense of dignity or otherwise affect him/her in a serious manner.
4. the onus lies with the applicant to prove that the discrimination is unfair on the basis that it had an effect on him/her or others of a similar status.
4.2.4. Court Established Precedents

The most common forms of discrimination experienced by those with the virus include:

- workplace policies that unfairly discriminate against people living with HIV or AIDS;
- medical aid schemes that deny effective treatment and care to people living with HIV or AIDS;
- insurance companies who refuse to offer life insurance to people living with HIV or AIDS;
- social stigma within their communities of people living with HIV.

The Constitutional Court has set a precedent, which will act as a rule of law for those cases of a similar nature, through the judgments in the following cases:

- in National Coalition for Gay and Lesbian Equality and Others v Minister of Home Affairs (2000)27, the Constitutional Court said that discrimination could be on more than one ground. This means that our courts may decide that a person is unfairly discriminated against on the grounds of HIV status and disability.
- in Harksen v Lane and Others (1997), the Constitutional Court stated that the right to equality is violated when someone is treated differently in a way that constitutes unfair discrimination.
- in Prinsloo v van der Linde and Another (1997), the Constitutional Court stated that not all cases of different treatment were unfair discrimination. The different treatment must also hurt a person’s sense of dignity.
- in Hoffman v South African Airways (2000), the Constitutional Court said that refusing employment to a person simply because he was living with HIV affected his dignity and was unfair discrimination.
4.3. THE LABOUR RELATIONS ACT

The Labour Relations Act (LRA) No 66 was passed in 1995 with a view to govern issues such as the rights and duties set out for both employers and employees as well as the rights given to Trade Unions and Employer Organisations.

The LRA covers all employees and employers. This means that domestic workers now have the same rights as factory workers, and people working for the government have the same rights as those working in the private sector. The only employees not covered by this Act are people working for the South African Defence Force (SANDF), the National Intelligence Agency (NIA) and Secret Services. However, these employees are protected by the Constitution and therefore retain rights to fair labour practices and equality. Unfair labour practices and unfair dismissals are the two main protections afforded by the LRA to employees.

There are three reasons for dismissal, which are in accordance with the LRA:
1. dismissals for misconduct (bad behaviour)
2. dismissals for incapacity (including inability to do a job due to ill-health)
3. dismissals due to operational requirements (e.g. retrenchment)

If the reason for a dismissal is deemed unfair, or a fair procedure is not followed, the employee can claim that he/she was unfairly dismissed. The LRA stipulates dismissals to be “automatically unfair dismissals”, if there is incontrovertible evidence of “unfair” discrimination (e.g. race or gender). A dismissal, solely because an employee is HIV positive or has AIDS is likely to be found automatically unfair in accordance with section 187, because it is a dismissal based on discriminatory conduct by the employer, or simply unfair in terms of section 188 (and it does not fall into one of the listed categories). However, if an employee with AIDS is dismissed for incapacity, the decision is likely to be upheld, provided steps outlined in the Code of Good Practice on Dismissal have been followed.
In other words, it is unlawful for an employer to dismiss an employee because he/she suspects that you may have AIDS, but cannot show any evidence of incapacity. It is the duty of the employer to ensure that a dismissal for incapacity is fair and in order to achieve this the employer must investigate the extent of the incapacity or injury. A decision must be made to determine the extent of the incapacity, whether it be long or short term. It is the duty of the employer to investigate the alternatives to dismissal and consider the possibilities of “adapting the duties or work circumstances of the employee to accommodate the employee’s disability”.

The rights of the worker, in the case of possible dismissal on the grounds of incapacity, are as follows:
1. get help from a trade union or a fellow employee
2. respond to the employer
3. ask for reasonable accommodation (suitable alternative work)

Employers are expected to find ways to adapt to circumstances to help the employee to continue working. This is referred to ‘reasonable accommodation’ in the LRA. However, an employer is not expected to face ‘undue hardship’ in making it possible for an employee to continue working.

Factors to assess whether an employer made ‘reasonable accommodation’
1. the size and the type of business.
2. the nature and the cost of adapting the employee’s job or in finding alternatives.
3. the effect this will have on other employees.
4. the nature and the cause of the employee’s incapacity (e.g. if it is temporary or permanent)
5. the employee’s position within the company, length of service and work record.
6. the length of time the worker was off sick.
4.4. EMPLOYMENT EQUITY ACT

The Employment Equity Act No 55 was passed in 1998 in an attempt to create an environment of equality and non-discrimination in the workplace. It is particularly relevant because it is the only act that refers specifically to HIV/AIDS. The EEA will, because of its express protection for employees against unfair discrimination on the basis of ‘HIV status’, become the most important point of reference for decisions relating to the management of HIV/AIDS in the workplace.

Section 5 of the Act aims to promote equal opportunity by eliminating unfair discrimination, directly or indirectly, and it prohibits unfair discrimination, directly or indirectly, against an employee in any employment policy or practice, on a number of grounds, of which one is HIV status. An employer cannot, therefore, refuse to employ a person simply because they are known or suspected to have HIV, this unfairly discriminates against them on the grounds of HIV status.

Section 7 of the Act prohibits medical testing of an employee except in circumscribed circumstances. Testing of an employee to determine that employee’s HIV status is prohibited unless such testing is determined to be justifiable by the Labour Court. However, voluntary testing is allowed.

Rand Water has become the first South African company to be granted a court order for on-site voluntary HIV testing for all of its 3000 employees. Rand Water’s reasoning behind the application was to assess the extent of the disease, the effectiveness or otherwise of planned interventions, the effect of the epidemic on the corporation as well as the likely cost scenarios.

In terms of the court order, Rand Water is permitted to conduct on-site voluntary HIV testing for a year, under the following conditions:

- testing is done voluntarily and with the informed consent of the employees to be tested;
- testing will not be requested as a condition of employment, promotion or any other benefits;
• testing will not be a job requirement;
• no prejudicial inference will be drawn from a refusal to submit to testing, nor will the company be informed or request to be informed of employees who have undergone testing;
• testing will only be done after pre-test counseling has been given and will be followed by post-test counseling;
• the contractors conducting the tests will at no time reveal the results to anyone but the employee;
• the contractors will be required to sign a confidentiality agreement; and
• the result of any test will not be made known to any decision maker required to decide on any employment policy or practice concerning the employee.

Section 59 of the Act states that any person who discloses any confidential information acquired in the performance of a function in terms of this Act, commits an offence. With confidentiality, the rules are the same as in the medical profession. If an employee informs the employer about their status, he/she can only inform other people with the employee’s consent. Telling other employees without the necessary consent is a breach of confidentiality and means that the employee can claim damages from his/her employer. An important issue to take into consideration is that should HIV/AIDS be classified in the future as a disability, there will be other implications arising from the Act. For example, employers have responsibilities related to affirmative action in respect of people from ‘designated groups’. These responsibilities include ‘reasonable accommodation’ which is defined as any modification or adjustment to a job or to the working environment that will enable a person from a designated group to have access to or participate or advance in employment. Designated groups are defined as ‘black’ people, women and people with disabilities.
4.5. OCCUPATIONAL HEALTH AND SAFETY ACT

The Occupational Health and Safety Act (OHSA) No 85 passed in 1993 and covers all employees, except those in the mining industry, who fall under the Mine Health and Safety Act. Its relevance here is the clause which requires that an employer:

"Provide and maintain as far as reasonably practicable, a working environment that is safe and without risk to the health of his employees."

It is therefore, imperative, that employers ensure that employees are not exposed to harmful substances or dangerous machinery. If blood is spilt in the workplace, employees must be aware of the precautionary steps to take so as to limit the exposure to the possibility of infected blood.

This places a duty of care on employers to ensure that:

a) steps are taken to assess the risk of occupational HIV infection;

b) the risk of possible HIV infection is minimized;

c) staff training is undertaken on safety steps to be taken following an accident; and

d) universal infection control procedures are used in any situation where there is a possible exposure to blood or blood products.

Furthermore, the Department of Labour has since issued regulations which are that: employers have a duty to ensure that safety equipment such as rubber gloves are in every first aid box and that all staff be trained in universal precautions and should have access to the equipment needed to use these precautions. The Act requires specification and placement of worker representatives whose duties include liaising with management to ensure adherence to Health and Safety regulations. The OHSA stipulates that a representative must be designated for every workplace consisting of 20 or more workers. In the case of shops and offices, one representative must be designated for every 100 workers or part thereof. For example, one representative must be designated in the case of 21 to 100 workers. But two representatives must be designated where 101 to 200 workers are employed. In the case of other workplaces, one representative must be designated for every 50 workers or part thereof. For example, one representative must be designated in
the case of 21 to 50 workers. But two representatives must be designated where 51 to 100
workers are employed.

These representatives are required to communicate with employers on issues affecting the
health and safety of employees. This communication can take the form of official
recommendations made to the employer on the issue of workplace health and safety.
If employees (including health care workers) feel that their work environment is not safe:
• they have the right to refuse to work, and
• they may request an inspector from the Department of Labour to look at their
  workplace.

4.6. COMPENSATION FOR OCCUPATIONAL INJURIES AND DISEASES ACT
The Compensation for Occupational Injuries and Diseases Act (COIDA) No. 130 passed
in 1993 gives employees the right to compensation for accidents and illness that they got
while working. Should an employee become infected with HIV as a result of a workplace
accident, the employee can claim within the framework of this Act.

In order to claim compensation, the employer must take the following steps to show that
the infection was as a result of an occupational accident. The steps to be followed initially
after the accident are:
1. report the accident to the Occupational Health Inspector.
2. request counselling for the affected employee
3. ensure the affected employee take an HIV test immediately
4. in cases where there was transmission of blood from one person to another, ask the
   person who was the source of the blood to take an HIV test – for example: needle stick
   injury for nurse while working with a patient.
5. if the ‘source’ person refuses to take the test, ensure that all efforts to ask his/her, are
   written down and then reported to the head of Occupational Health and Safety in the
   workplace. This person must then write an affidavit saying that attempts were made to try
   and get information on the source patient’s HIV status, but they were unsuccessful.
6. take an HIV test again 6 weeks to 3 months later, to see if one has sero-converted (become HIV positive) as a result of the accident.

The employee may claim for compensation if he/she can show that:

- personal protective equipment was not available; and
- infection was due to the negligence of the employer, who did not provide a safe working environment.

It is important to note that if an accident is not reported to either an employer or the Compensation Commissioner within 12 months, an employee loses the right to claim for compensation.

4.7. BASIC CONDITIONS OF EMPLOYMENT ACT

The Basic Conditions of Employment Act (BCEA) 75 passed in 1997 sets out the minimum working standards for all working relationships, such as:

- leave and sick leave
- hours of work
- how often employees can take tea and lunch breaks.

With the onset of AIDS, companies are facing increasing pressure to adjust policies around sick leave and family responsibility leave. As employees become infected with opportunistic diseases in the advanced stages of AIDS, they are unable to work and are forced to either spend time in clinics or hospitals or, alternatively, be taken care of at home. Likewise, as relatives of employees who are die or become seriously ill, employees will attend funerals more often, or attend to the sick at home (usually women).

The BCEA stipulates that:

- every employee has a right to 6 weeks paid sick leave over any 3-year cycle.
- in the first 6 months of employment, an employee is allowed 1 day of sick leave for every 23 days worked.
• a medical certificate is needed for absences of longer than 2 days and for repeated absences.

The Act goes on to say that employees have a right to three days of family responsibility leave a year, which they can use when:

• a child is born
• a child is sick
• there is a death of a spouse (husband or wife), life partner, parent, grandparent, child, grandchild, brother or sister.

It is important to note that although the BCEA sets out the minimum number of days of sick leave employees may claim, the Act stipulates that employers and employees can renegotiate sick leave to get more sick leave at, perhaps, reduced pay.

There are a number of other pieces of legislation and protections found within the common law, which protect an individual’s personal rights. Although not directly employment-related they impact on the management of HIV/AIDS in the workplace. These are:

• the Medical Schemes Act No. 131 of 1998
• common law protection of the right to privacy and dignity

4.8. THE MEDICAL SCHEMES ACT OF 1998

Many companies offer employees medical aid benefits. This Act prohibits medical schemes from discriminating against people living with HIV or AIDS:

• a medical scheme may not be registered if it discriminates directly or indirectly against any person on the basis of their health status.
• all schemes must offer a minimum level of benefits to employees with HIV or AIDS. At the moment, the minimum benefits say:
  - they must treat all opportunistic infections for HIV or AIDS.
  - they do not have to provide anti-retroviral treatment.
4.9. INTERNATIONAL AND FOREIGN LAW

Under the Constitution, a court interpreting the Bill of Rights must take note of international law, and may consider foreign law. International law is the body of laws and principles that all countries must follow in their relations with each other (e.g. Universal Declaration of Human Rights, 1948). Foreign law refers to judgments and statutes from other countries (e.g. Americans with Disabilities Act of 1990). The relevance of both International and Foreign law is that some companies which operate in South Africa will take cognisance of the applicable international standards and norms that are recognised transnationally.

South Africa has become a signatory to a number of international agreements and codes such as the International Labour Organisation (ILO) Convention 111 on Discrimination (Employment and Occupation), 1958. However the only one which relates specifically to HIV/AIDS in the workplace is the South African Development Community (SADC) Code of AIDS and Employment, which was approved by the Council of Ministers in September 1997.

4.9.1. International Law

International law appears to support the three views that HIV status is a disability, it can be a separate ground for non-discrimination and that HIV status is an ‘other’ ground for non-discrimination.

The UNAIDS/UN International Guidelines on HIV/AIDS and Human Rights advise governments that:

“General anti-discrimination laws should be enacted or revised to cover people living with asymptomatic HIV infection, people living with AIDS and those merely suspected of HIV or AIDS. Such laws should also protect groups made more vulnerable to HIV/AIDS due to the discrimination that they face. Disability laws should also be enacted or revised to include HIV/AIDS in the definition of disability.”
The UN Standard Rules on the Equalisation of Opportunities for People with Disabilities state that: “The term disability summarises a great number of functional limitations occurring in any population in any country in the world. People may be disabled by physical, intellectual or sensory impairment, medical conditions or mental illness. Such impairments, conditions or illnesses may be permanent or transitory in nature.”

Two of the most important rights agreements are:

- equal protection for all people by the law, and
- freedom from discrimination on any ground such as race, sex, religion, “or other status”.

The UN Commission on Human Rights has confirmed that “other status” should include health status, including HIV/AIDS.

4.9.2. Foreign Law

Foreign law can best be illustrated using precedent set through judgments in particular court cases:

- in Bragdon v Abbott (1998), the United States Supreme Court decided that the non-discrimination sections of the Americans with Disability Act, protected people living with HIV.
- Canada protects people on the basis of disability with its Charter of Rights and Freedoms. In Canada v Thwaites (1994), the court stated that discrimination on the basis of a person’s HIV status violates the Charter and the Canadian Human Rights Act.
- in Australia, the Disability Discrimination Act recognizes HIV infection, or even the belief that a person has HIV infection, as a disability. In X v Commonwealth (1999), the High Court of Australia confirmed the decision of the Australian Human Rights and Equal Opportunity Commission, deciding that the dismissal of an employee on the basis of his HIV status is prohibited by the Disability Discrimination Act.

Hong Kong, the Philippines and New Zealand have similar laws.
4.12. CONCLUSION

In summation we can say that the legal framework within which an organization must adhere, is derived from the Constitution. This legal framework finds more concrete expression in legislation such as the Labour Relations Act, the Employment Equity Act as well as the Occupational Health and Safety Act.

Organisations should not engage in nor permit any personnel policy or practice that discriminates against workers infected with or affected by HIV/AIDS.

In particular, any company should:

- not require HIV/AIDS screening or testing;
- ensure that work is performed free of discrimination or stigmatisation based on perceived or real HIV status;
- encourage a person with HIV and AIDS-related illnesses to work as long as he/she is medically fit for appropriate work; and
- provide that, where a worker with an AIDS-related condition is too ill to continue to work and where alternative working arrangements including extended sick leave have been exhausted, the employment relationship may cease in accordance with anti-discrimination and labour laws and respect for general procedures and full benefits.

Companies should have established procedures that can be used by workers and their representatives for work-related grievances. These procedures should specify under what circumstances disciplinary proceedings could be commenced against any employee who discriminates on the grounds of real or perceived HIV status or who violates the workplace policy on HIV/AIDS.

It is imperative that HIV/AIDS-related information of workers should be kept strictly confidential and kept only on medical files, whereby access to information complies with national laws and practices. This is clearly stipulated in section 59 of the Employment Equity Act. Access to such information should be strictly limited to medical personnel and such information may only be disclosed if legally required or with the consent of the person concerned.
The company must ensure a safe and healthy working environment, including the application of Universal Precautions and measures such as the provision and maintenance of protective equipment and first aid. To support behavioural change by individuals, employers should also make available, where appropriate, male and female condoms, counseling, care, support and referral services. Where size and cost considerations make this difficult, employers and/or their organizations should seek support from government and other relevant institutions.

In those workplaces where workers come into regular contact with human blood and body fluids, the company must take additional measures to ensure that all workers are trained in Universal Precautions, that they are knowledgeable about procedures to be followed in the event of an occupational incident and that Universal Precautions are always observed. Facilities should be provided for these measures.

The company, in consultation with the worker(s) and their representatives, should take measures to reasonably accommodate the worker(s) with AIDS-related illnesses. These could include rearrangement of working time, special equipment, opportunities for rest breaks, time off for medical appointments, flexible sick leave, part-time work and return-to-work arrangements.

The above highlights good practices as supported by the ILO code of good practice on HIV/AIDS and the world of work. The onus is on the company to keep abreast of the changes within legislature. It is important that these changes are cascaded down to line managers to ensure that the company continually operates within the legal framework of the country.

Knowledge of the laws surrounding the issue of HIV/AIDS is necessary for any company as well as those individual employees within a company. It is imperative that companies respect the rights afforded to its employees by these laws and endeavour to protect them from the threat of human rights violations. Companies must realize that an unfair labour practice will lead to dire consequences while employees must both understand and defend their legal rights through the structures that have been established.
CHAPTER 5 – EVALUATION, COMMENTARY AND RECOMMENDATIONS

5.1. INTRODUCTION

The initial part of this chapter will describe the Rohm and Haas organization, the markets supplied and its true global presence. Thereafter the commentary will migrate to the local South African operation based in New Germany, Durban. Business issues will be briefly highlighted together with a graphical display of the employee complement and breakdown along various characteristics.

A description of the R&H New Germany HIV/AIDS policy will be provided as well as the current intervention programmes. This would lead into an in-depth evaluation of the R&H New Germany HIV/AIDS Policy and programmes largely along the following dimensions:

- Policy;
- Legal issues
- How to avoid HIV Infection
- Wellness management; and
- Monitoring and evaluation.

Each dimension will be thoroughly discussed so as to obtain the desired level of understanding with regards to its contribution the success of the HIV/AIDS initiatives.

Strengths and weakness of the company’s initiatives will be discussed together with supporting reasons. This leads onto generating recommendations based on Best Practices. Details on how to develop a HIV/AIDS policy intervention program is explicitly discussed.
This chapter culminates with a proposed operational plan and action items that R&H New Germany can undertake to re-invigorate the fight against HIV/AIDS along focused and collaborative means. In this way it can be ensured that the organization is equipped with the methodology to implement high quality HIV/AIDS programmes that is cognisant of the following:

- economic impacts,
- legal issues,
- statistics,
- cultural differences,
- people, and
- ethical issues.

5.2. BUSINESS

The Rohm and Haas Company (R&H), is a global specialty materials company that reported 2002 net sales of approximately $5.7 billion. R&H is a public corporation, incorporated in 1917 under the laws of the State of Delaware, whose shares are traded on the New York Stock Exchange under the symbol “ROH.”

The corporate office is located at:
100 Independence Mall West
Philadelphia, PA 19106-2399
Phone number: (215) 592-3000

R&H is a company that strives to operate at the highest levels of integrity and ethics. In support of this, R&H’s internal Code of Business Conduct requires that all salaried employees receive compliance training and certify compliance with the code. With respect to our Board of Directors governance, all but two of the fifteen Directors are non-employees. The audit, nominating and compensation committees of the Board are all composed entirely of outside directors.
5.2.1. Number of employees
At the end of 2002 the organizational head count was approximately 21,000. However due to operational restructuring in light of the global economic slowdown the number of employees has been trimmed to approximately 17,000 at the end of August 2003.

5.2.2. Strategy
By leveraging broad technology base globally within key markets, R&H brings technology and innovation to the market that enhances the performance of the end-use consumer products made by their customers.
R&H is committed to:

- ongoing investment in research and development to develop new technology platforms and leverage existing ones;
- continually bringing innovative solutions to the marketplace;
- repositioning geographically to enhance the ability of their customers to serve their market needs;
- ongoing improvement in the efficiency of the R&H cost structure;
- a culture that is customer oriented, market focused, disciplined, data-driven and responsive;
- sustainability in all forms, including technology, safety, environmental impact and financial performance.

5.2.3. Segments
R&H is a geographically diverse company, with over 100 manufacturing and technical locations in over 25 countries. In 2002, approximately 39% of net sales were made outside of North America and operated six global businesses. R&H’s technology can be found in a wide range of end-use markets as described below:

Coatings (33% of 2002 net sales): This segment is comprised of three businesses: Architectural and Functional; Powder; and Automotive Coatings. Architectural and Functional Coatings produces acrylic emulsions, additives and colorants that are used to make industrial and decorative coatings, varnishes and specialty finishes. This business also provides similar technology for use in the paper industry, graphic arts applications,
leather garments, fibre-filled materials and textile finishes. Automotive Coatings formulates paints for the plastic interior and exterior components of cars and trucks. Powder Coatings produces a comprehensive line of thermoset and thermoplastic coatings used on everything from backyard grills to kitchen cabinetry and industrial shelving.

**Adhesives and Sealants (11% of 2002 net sales):** This segment provides adhesives and other products, based on a wide range of technologies, used to make carton sealing tapes, pressure-sensitive labels, flexible packaging, automotive components and other specialty laminates.

**Electronic Materials (17% of 2002 net sales):** This segment provides cut-ting-edge technology for use in telecommunications, consumer electronics and household appliances. Microelectronics provides an extensive assortment of critical imaging and non-imaging chemicals needed to reproduce complicated circuitry designs on integrated circuits. Rodel provides high-tech pads and slurries used to make ultra smooth and uniform layers on integrated circuits. The Printed Wiring Board business provides essential chemistry for use in the manufacture of high-density printed circuits and circuit boards, and the Electronic and Industrial Finishing business provides chemical processes used to metallize electronic components and devices.

**Performance Chemicals (21% of 2002 net sales):** This segment includes the sales and operating results of Plastics Additives, Inorganic and Specialty Solutions, Consumer and Industrial Specialties, Ion Exchange Resins and other smaller business groups. These businesses provide products that serve a diverse set of markets, from consumer products, to additives used to manufacture plastic and vinyl products, to water treatment and purification processes for food and pharmaceutical markets, to newsprint processing.

**Salt (12% of 2002 net sales):** Some of the most recognized consumer brand names and product symbols are found here, including the leading brand of table salt in the United States – Morton Salt, with its little Umbrella Girl, and Windsor Salt, Canada’s leading brand. Even though the consumer salt business is best known, this segment extends well beyond this market and includes salt used for water conditioning, highway ice control, food processing, chemical/industrial use and agriculture.
Monomers (6% of 2002 net sales, excluding intersegment sales): This segment produces methyl methacrylate, acrylic acid and associated esters as well as specialty monomer products. Monomers serve as the building block for many of R&H’s acrylic technologies and are sold externally for applications such as super-absorbent polymers and acrylic sheet.

Summary of Business Segments

<table>
<thead>
<tr>
<th>Business</th>
<th>2002 Net Sales (in millions)</th>
<th>Markets</th>
<th>Products/ Technology</th>
<th>End Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coatings:</td>
<td>$1,866</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Architectural and Functional Coatings</td>
<td>$1,531</td>
<td>Building and construction Home improvement, particularly “do-it-yourself” and contractor markets Paper Graphic arts Apparel Home and office goods Transportation</td>
<td>An array of versatile acrylic emulsion polymers and other technologies A range of additives, such as thickeners, extenders and opacifiers</td>
<td>House paints Traffic paints Metal coatings Coated papers Printing inks Non-woven fibers Textile finishes Insulation Leather</td>
</tr>
<tr>
<td>Automotive Coatings</td>
<td>$109</td>
<td>Transportation</td>
<td>Solvent and water-based coatings for exterior and interior plastic parts</td>
<td>Cars Trucks</td>
</tr>
<tr>
<td>Powder Coatings</td>
<td>$226</td>
<td>Home and office goods Recreation Lawn and garden Transportation</td>
<td>Epoxy, polyester and acrylic powder coatings Lamineer – a low temperature curing coating</td>
<td>Shelving Tables and chairs Office furniture Cabinetry Machinery Gas grills</td>
</tr>
<tr>
<td>Adhesives and Sealants</td>
<td>$592</td>
<td>Pressure-sensitive adhesives Packaging Transportation Construction</td>
<td>A full range of adhesives and coatings based on acrylics, polyurethanes and polyesters</td>
<td>Pressure-sensitive tapes and labels Car interior trim Weather stripping Anti-vibration components Flexible packaging Graphic arts Caulks and sealants Laminated panels</td>
</tr>
<tr>
<td>Electronic</td>
<td>$987</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Materials:</td>
<td>Sales</td>
<td>Markets</td>
<td>Products/ Technology</td>
<td>End Uses</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>--------</td>
<td>----------------------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td><strong>Printed Wiring Board</strong></td>
<td>$288</td>
<td>Electronic devices</td>
<td>Enabling technology for all aspects of the manufacture of printed wiring boards; products such as: photoresists, solder mask, electroless and electrolytic copper</td>
<td>Cellular phones, Personal computers, Cars and trucks, Home appliances, Office equipment, Electronic games</td>
</tr>
<tr>
<td><strong>Electronic and Industrial Finishes</strong></td>
<td>$146</td>
<td>Electronic devices</td>
<td>Materials and technology for integrated circuit packaging, connectors and industrial finishing</td>
<td>Cellular phones, Personal computers, Cars and trucks, Home appliances, Office equipment, Electronic games, Steel and metal finishing</td>
</tr>
<tr>
<td><strong>Microelectronics (1)</strong></td>
<td>$553</td>
<td>Electronics and communication devices</td>
<td>Essential technology for creating state-of-the-art integrated circuits: photoresists, developers, removers, anti-reflective coatings, chemical mechanical planarization (CMP) pads and slurries</td>
<td>Cellular phones, Personal computers, Cars and trucks, Home appliances, Office equipment, Electronic games</td>
</tr>
<tr>
<td><strong>Performance Chemicals (2): Plastics Additives</strong></td>
<td>$1,217</td>
<td>Building and construction</td>
<td>A wide range of additives that impart desired properties into the end plastic or help machinery run more efficiently (acrylic-based impact modifiers and processing aids, tin-based stabilizers and lubricants)</td>
<td>PVC pipe, Vinyl siding, Wall systems, Vinyl windows, Fencing and decks, Plastic packaging, Interior auto parts, Appliances and business machines</td>
</tr>
<tr>
<td><strong>Business</strong></td>
<td>2002 Net Sales (in millions)</td>
<td>Markets</td>
<td>Products/ Technology</td>
<td>End Uses</td>
</tr>
<tr>
<td><strong>Inorganic and Speciality Solutions</strong></td>
<td>$161</td>
<td>Paper</td>
<td>Sodium borohydride and related technologies, Sulfur-based intermediates, Salt-forming bases</td>
<td>Paper and recycled Newsprint, Corrosion inhibitors, Pharmaceutical Products, Dyes</td>
</tr>
<tr>
<td>Consumer and Industrial Specialties</td>
<td>$388</td>
<td>Household products</td>
<td>Antimicrobials, dispersants, acrylic emulsions and a range of other technologies</td>
<td>Laundry and dishwasher detergents Shampoos and conditioners Floor polishes Paints</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>------</td>
<td>------------------</td>
<td>---------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td>Ion Exchange Resins</td>
<td>$214</td>
<td>Water processing Food processing Electronics Bioprocessing Chemical processing</td>
<td>Anion and cation ion exchange resins Adsorbents</td>
<td>Soft drinks and juices Ultrapure water Catalysis Pharmaceuticals</td>
</tr>
<tr>
<td>Salt</td>
<td>$706</td>
<td>Food and food related Transportation Industrial processing Water processing</td>
<td>Salt produced through Vacuum pan production, Solar evaporation or Mines rock salt</td>
<td>Table salt Home water Conditioning salt Highway salt Chemical Processing salt Salt blocks for animal feed</td>
</tr>
<tr>
<td>Monomers</td>
<td>$970</td>
<td>Building and construction Personal care Automotive Packaging</td>
<td>Methyl methacrylate Acrylic acid Associated esters Speciality monomers</td>
<td>Adhesives Paints and coatings Floor polishes Hair sprays Super absorbent products</td>
</tr>
</tbody>
</table>

Table 5.1 Summary of Business Segments
Source: Rohm and Haas Company Annual Financial Report, 2002

5.2.4. Research and Development

R&H’s principal research and development laboratories are located in Spring House, Pennsylvania. A complete list of the technical and research centres throughout the world can be found in the table below. R&H is committed to ongoing investment in research and development as a way to differentiate their existing products, while bringing new technologies and innovative, high value products to market. R&H spent $260 million, $230 million and $224 million in 2002, 2001 and 2000, respectively, for research and development. Approximately 70% of the spending is targeted to three major growth businesses: Coatings; Electronic Materials; and Adhesives and Sealants.
5.2.5. Properties

R&H operate more than 100 manufacturing facilities, mines and salt evaporation facilities in over 25 countries. The facilities and the segment for which they are productive are detailed below:

<table>
<thead>
<tr>
<th>Manufacturing Locations</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina: Zarate(1)</td>
<td></td>
</tr>
<tr>
<td>Australia: Geelong(1)</td>
<td>Arizona: Glendale(5)</td>
</tr>
<tr>
<td>Bahamas: Inagua(1)</td>
<td>California: Hayward(1); La Mirada(1); Long Beach (5); Newmark(5)</td>
</tr>
<tr>
<td>Brazil: Jacarei(1,2,4)</td>
<td>Argentina: Newark(3)</td>
</tr>
<tr>
<td>Canada: Ile-DE-La Madeleine(5): Lindbergh(5); Ojibway(5); Pugwash(5); Regina/Belle Plaine(5); West Hill(1); Windsor(5)</td>
<td>Florida: Cape Canaveral(5)</td>
</tr>
<tr>
<td>China: Beijing(1); Dongguan(3); Hong Kong(3); Shanghai(4); Songjiang(1)</td>
<td>Illinois: Chicago(4,5); Elk Grove(2); Kankakee(1); Lansing(1); Ringwood(1,2)</td>
</tr>
<tr>
<td>Colombia: Barranquilla(1)</td>
<td>Indiana: Warsaw(1)</td>
</tr>
<tr>
<td>France: Chauny(4); Lauterbourg(1,4); Semoy(1,2); Villers-Saint-Paul(4)</td>
<td>Kansas: Hutchinson(5)</td>
</tr>
<tr>
<td>Germany: Bremen(1); Marl(6); Strullendorf(1,2); Arnberg(1)</td>
<td>Kentucky: Louisville(1,4)</td>
</tr>
<tr>
<td>Indonesia: Cilegon(1)</td>
<td>Louisiana: Weeks Island(5)</td>
</tr>
<tr>
<td>Italy: Castronno(3,4); Mozzanica(1); Mozzate(2); Parona(2)</td>
<td>Massachusetts: Marlborough (3); North Andover(3)</td>
</tr>
<tr>
<td>Japan: Kurosaki(3); Omiya(3); Nagoya(1,4); Nara(3); Ogaki(3); Saitama(3); Sasagami(3); Soma(4)</td>
<td>Michigan: Manistee(4,5)</td>
</tr>
<tr>
<td>Mexico: Apizaco(1,4); Toluca(2)</td>
<td>Mississippi: Moss point (3)</td>
</tr>
<tr>
<td>Netherlands: Amersfoort(2); Delfzijl(4)</td>
<td>New Jersey: Perth Amboy(5)</td>
</tr>
<tr>
<td>New Zealand: Auckland(1)</td>
<td>New York: Freeport(3); Silver Springs(5)</td>
</tr>
<tr>
<td>Philippines: Las Pinas(1)</td>
<td>North Carolina: Charlotte(1,2)</td>
</tr>
<tr>
<td>Singapore: Singapore(2,3,4)</td>
<td>Ohio: Cincinnati(4); Fairport(5); Painsville(4); Rittman(5)</td>
</tr>
<tr>
<td>South Africa: New Germany(1)</td>
<td>Pennsylvania: Bristol(1,2,4,6); Croydon(1,2); Philadelphia(4); Reading(1)</td>
</tr>
<tr>
<td>South Korea: Chonan(2)</td>
<td>South Carolina: Spartanburg(3)</td>
</tr>
<tr>
<td>Spain: Castellon(1); Tudela(1)</td>
<td>Tennessee: Knoxville(1,2,4,6)</td>
</tr>
<tr>
<td>Sweden: Landskrona(1)</td>
<td>Texas: Bayport(4,6); Deer Park(1,2,4,6); Grand Saline(5)</td>
</tr>
<tr>
<td>Switzerland: Buchs(4); Liitau/Lucerne(3)</td>
<td>Utah: Grantsville(5)</td>
</tr>
<tr>
<td>Taiwan: Min-Hsing(1,4); Chiayi Hsien(3); Ta Yuan(3); Tsouyuan Hsien(3)</td>
<td>Virginia: Blacksburg(3); Wytheville(1)</td>
</tr>
<tr>
<td>Thailand: Maptaphut(1,4)</td>
<td>Washington: Elma(4)</td>
</tr>
<tr>
<td>United Kingdom: Aldridge(1); Buxton(3); Coventry(3); Dewsbury(1); Grangemouth(4); Jarrow(4); Warrington(3)</td>
<td></td>
</tr>
</tbody>
</table>
Research and Technical Facilities:

<table>
<thead>
<tr>
<th>Research Headquarters</th>
<th>United States:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia: Geelong(1)</td>
<td>Arizona: Phoenix(3)</td>
</tr>
<tr>
<td>Brazil: Jacarei(1,2,4)</td>
<td>California: Sunnyvale(3)</td>
</tr>
<tr>
<td>China: Hong Kong(3); Shanghai(1)</td>
<td>Delaware: Newark(3)</td>
</tr>
<tr>
<td>France: Valbonne(1,2,4)</td>
<td>Georgia: Norcross(3)</td>
</tr>
<tr>
<td>Japan: Nara(3); Kanagawa(4); Omiya(3); Sasagami(3); Tokyo(3)</td>
<td>Illinois: Elgin(2); Lansing(1); Ringwood(1,2)</td>
</tr>
<tr>
<td>Singapore: Singapore(2,4)</td>
<td>Massachusetts: Marlborough(3); North Andover(3); Woburn(1)</td>
</tr>
<tr>
<td>South Korea: Chonan(3)</td>
<td>Michigan: Rochester Hills(1)</td>
</tr>
<tr>
<td>Taiwan: Taoyuan Hsien(3)</td>
<td>New York: Freeport(3)</td>
</tr>
<tr>
<td></td>
<td>North Carolina: Charlotte(1)</td>
</tr>
<tr>
<td></td>
<td>Ohio: Cincinnati(4); West Alexandria(2)</td>
</tr>
<tr>
<td></td>
<td>Pennsylvania: Bristol(1); Reading(1)</td>
</tr>
<tr>
<td></td>
<td>Virginia: Blacksburg(3)</td>
</tr>
<tr>
<td></td>
<td>Texas: Houston(6)</td>
</tr>
</tbody>
</table>

(1) Coatings
(2) Adhesives and Sealants
(3) Electronic Materials
(4) Performance Chemicals
(5) Salt, including mines and evaporation facilities
(6) Monomers

Table 5.2 Summary of R&H Manufacturing Locations and Research and Technical Facilities
Source: Rohm and Haas Company Annual Financial Report, 2002
5.2.6. Geographical Locations

R&H’s global business is divided into four regions as follows together with the regional head office location.

<table>
<thead>
<tr>
<th>Region</th>
<th>Regional Head Office</th>
</tr>
</thead>
<tbody>
<tr>
<td>North American Region (NAR)</td>
<td>Philadelphia - USA</td>
</tr>
<tr>
<td>European Region (ER)</td>
<td>Paris - France</td>
</tr>
<tr>
<td>Latin American Region (LAR)</td>
<td>Col. Bosques de las Lomas - Mexico</td>
</tr>
<tr>
<td>Asia – Pacific Region (APR)</td>
<td>Taipei - Taiwan</td>
</tr>
</tbody>
</table>

Note: the Philadelphia office also functions as the Global Corporate Headquarters.

Table 5.3 Regional Rohm and Haas Company Head Offices
Source: Rohm and Haas Company Annual Financial Report, 2002

5.3. SOUTH AFRICAN OPERATION

R&H’s only manufacturing operation in Africa is located at the New Germany site in KZN. The South African operation includes both a Manufacturing capability and Sales and Marketing activities. This subsidiary reports into the European Region Headquarters in Paris. The primary reasons for this is two-fold: similar time zones which allows timeous communication and rapid decision making. Secondly the EU is far South Africa’s largest trading partner and as such knowledge with regards to intercontinental transacting are well developed.

5.3.1. Markets served

The following market segments are serviced by the New Germany organization.

- Coatings
- Adhesives and sealants
- Ion Exchange Resins
- Performance Chemicals
- Consumer and Industrial Specialties
Products are supplied these markets by either locally manufacturing and importing from other R&H manufacturing facilities around the globe. Currently 60% of total volume sales emanates from the local manufacturing facility.

5.3.2. Manufacturing volumes and revenues
The New Germany manufacturing operation is designed to manufacture 15,000 tons of emulsion per annum. This output can be increased by adding an additional shift and/or by working overtime. The product mix also impacts upon manufacturing volume as there are some products which require significantly less reactor time than others.

For the financial year ending December 2002, the total annual revenue was approximately R 190 million.

5.3.3. Rohm and Haas New Germany Employee Statistics
Currently the organization consists of 64 employees, two of which are home based. In addition there are 10 Black contract employees.

The statistics and breakdown of the employees is graphically depicted below.

**Employee Complement by Race**

<table>
<thead>
<tr>
<th></th>
<th>Blacks</th>
<th>Coloureds</th>
<th>Indians</th>
<th>Whites</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>37</td>
<td>1</td>
<td>11</td>
<td>15</td>
<td>64</td>
</tr>
</tbody>
</table>

**Total Employees by Race**

- Blacks 58%
- Indians 17%
- Coloureds 2%
- Whites 23%

Figure 5.1 Employee Statistics: Total Employees by Race
Source: R&H New Germany Human Resource Department
Hourly Paid vs. Salaried

<table>
<thead>
<tr>
<th></th>
<th>Hourly</th>
<th>Salaried</th>
</tr>
</thead>
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<tr>
<td></td>
<td>22</td>
<td>42</td>
</tr>
</tbody>
</table>

Figure 5.2 Employee Statistics: Hourly Paid vs. Salaried
Source: R&H New Germany Human Resource Department

Salaried Employees by Race

<table>
<thead>
<tr>
<th></th>
<th>Blacks</th>
<th>Coloureds</th>
<th>Indians</th>
<th>Whites</th>
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<tr>
<td></td>
<td>15</td>
<td>1</td>
<td>11</td>
<td>15</td>
<td>42</td>
</tr>
</tbody>
</table>

Figure 5.3 Employee Statistics: Salaried Employees by Race
Source: R&H New Germany Human Resource Department
5.4. ROHM AND HAAS NEW GERMANY AND THE HIV/AIDS PANDEMIC

5.4.1. Introduction

HIV/AIDS is affecting businesses in profound and costly ways. The epidemic poses a serious threat to global competitiveness for the South African private sector. Disease prevention and health promotion are not commonly thought to be business concerns, but HIV/AIDS is forcing a re-examination of these perceptions.

The impact of HIV/AIDS on the workplace varies, depending on skills mix, geographic location and social context. It is further suggested that the spread and treatment of HIV/AIDS will be affected by people's access to quality health services and the nature and form of the treatment that they receive. Stigma and discrimination will play a big role and will influence a person's choice to disclose their HIV status.

The corporate sector's primary objective is to make a profit by selling goods and services for more than it costs to produce them. HIV/AIDS affects profitability through factors
internal and external to a business. The external factors include changes in markets, such as increases in wages or decreases in demand, and rising costs associated with the breakdown in institutions. These will be difficult for firms to manage. It is the internal effects, such as increasing absenteeism, higher pension payouts, and breakdowns in worker discipline and morale, which require responses from firms. The cost of producing goods is a function of the cost of inputs such as labour, materials and utilities. The impact of HIV/AIDS may raise costs and reduce productivity for a number of reasons:

- absenteeism includes more than employees missing work due to ill health. Women’s roles as caregivers will necessitate time off and funerals become a major source of lost time. Employees may force themselves to come to work for fear of losing jobs, but be effectively absent.
- workers whose health is failing will be less productive and unable to carry out physically or emotionally demanding jobs.
- replacements for employees who die or retire on medical grounds may be less skilled and experienced. The recruit incurs training costs.
- employers may increase the size of the workforce and hence payroll costs to cover for absenteeism.

Figure 5.8 (Distribution of Increased Labour Costs due to HIV/AIDS by Category) below highlights the relative incidence of the above factors. This illustration shows that the greatest cost to a company is HIV absenteeism at 37% followed by AIDS absenteeism at 15%.

Figure 5.5 Distribution of Increased Labour Costs due to HIV/AIDS by category
In addition HIV/AIDS will increase the cost of employee benefits, such as group life insurance, pensions and medical aid. The impact of HIV/AIDS on employee benefits is usually sudden and of large magnitude. Figure 5.9 shows how three benefits - a lump sum payment on death, a spouse pension, and disability pension are likely to rise in the face of increased mortality and morbidity. In 1995 these benefits cost about 7% of payroll costs. By 2010 they would cost around 18%.

The benefit costs will depend on the level of staff, and on what benefits are provided. Due to the sophisticated labour legislation, South African employers in the private and public sector will be adversely affected as they provide more in benefits to their staff. The point though is that companies have room to manoeuvre. Benefits are negotiable and it is not axiomatic that they will increase or necessarily cost the firm more. The extra costs could be borne by increased deductions from the employees or alternatively benefits can be reduced.
5.4.2. Location of operation

The South African operation is located in New Germany within the province of KwaZulu-Natal. The demographics of the area is representative of the province and therefore some of the startling facts that apply to the province will apply to the community within which the Rohm and Haas South African operation is located.

Here are some of the pertinent issues:

- Infections at birth: For the year ending 2002, the highest infection rate occurs in KZN at 8.30%.
- People living with HIV/AIDS: It estimates are that there were 6.5 million people in South Africa living with HIV/AIDS on 01 July 2002. KZN accounts for 27% of this, the highest of any province.
- Prevalence rate: The prevalence rate is the percentage of a group who are infected at a particular point in time. Overall, in July 2002, the estimates are that 14.2% of people in South Africa were infected. The figure is the highest for KZN at 18.4%.
- Deaths: In 2002, AIDS accounted for 40% of national deaths. In KZN it accounted for approximately 52% of all deaths – the highest provincial percentage.
- Mortality statistics: On each of the mortality measures, KZN performs the worst than all other provinces.
- Maternal orphans: During 2002, nationally AIDS accounted for 73% of all new orphans. It accounted for 81% of the new orphans in KZN.

5.4.3. Rohm and Haas New Germany HIV/AIDS Policies and Programmes

It is within this climate of a HIV/AIDS ravaged community that R&H South Africa must conduct its operations. During the course of 2002 various informal discussions were held to raise awareness of the pandemic. It was in July 2003 that a policy document has been generated relating specifically to this issue. The following is a copy of the policy document.
AIDS has reached pandemic proportions in South Africa, particularly in KwaZulu Natal. The company has decided that we need to take active and aggressive steps to help address the problem and to this end the following will be our official AIDS policy.

1. OBJECTIVES

1.1 We acknowledge the impact of the virus at macro and micro levels of health, economic and social welfare of all South African citizens, with a special emphasis on the welfare of our company employees.

1.2 The company endeavours to provide a healthy and safe working environment for all employees and to take all reasonable steps to protect all employees from the virus, while promoting an atmosphere conducive to dealing with the virus.

1.3 The purpose of this policy is to ensure that any actions or issues relating to the virus and sexually transmitted infections (STI’s) are managed in a manner that is uniform, fair, compassionate, commensurate with operational requirements of the business of this company, corrective and in compliance with any relevant legislation.

1.4 This policy will guide the development of a workplace programme in keeping with the provisions of the code of good practice schedule of the LRA and Employment Equity Act.

2. SCOPE

This policy shall apply to all permanent employees of Rohm and Haas South Africa. The company may at its own discretion apply this policy to outsourced workers.

3. EMPLOYMENT PRACTICES

3.1 CONFIDENTIALITY

Job applicants or employees will not be asked to disclose HIV-related personal information. Co-workers are also not obliged to reveal such personal information about their peers.

Access to personal data relating to an employee’s HIV status is bound by rules of confidentiality consistent with the code of good practice schedule of the LRA.
The programme of testing, counselling and treatment will be undertaken by the company clinic and except for information on the number of employees that are HIV-positive, this information will be kept confidential within the clinic.

3.2 VOLUNTARY TESTING

Employees are encouraged to use their own initiative to be tested as part of the voluntary testing programme run by the company clinic.

Voluntary testing is also available to spouses of employees through Mc Cord Hospital. All costs incurred for voluntary testing will be borne by the company.

3.3 PRE / POST TEST COUNSELING

The company encourages employees living with HIV / AIDS to use the expertise and assistance of the clinic for counselling.

The company will provide employees living with HIV / AIDS reasonable time away for counselling and treatment.

3.4 NON-DISCRIMINATION

No employee living with HIV / AIDS shall be unfairly discriminated against within the employment relationship or within any employment policies or practices, including with regard to:

- Recruitment procedures, advertising and selection criteria;
- Appointments and the appointment process, including job placement;
- Job classification or grading;
- Remuneration, employment benefits and terms and conditions of employment;
- Worker assistance programmes;
- Job assignments;
- The workplace and facilities;
- Occupational Health and Safety;
- Training and development;
- Performance evaluation systems;
- Promotion, transfer and demotion;
- Disciplinary measures short of dismissal; and
- Termination of service.

3.5 ALLOCATION OF COMPANY BENEFITS

An employee who is living with HIV / AIDS is eligible to enjoy all benefits that are enjoyed by fellow employees.

In addition the company commits to funding the appropriate treatment regimes for those employees who are HIV positive. These regimes will be at the discretion of the
company doctor and will include vitamin supplements and anti retroviral treatments. Together with the treatment, the clinic will provide all necessary associated testing.

All information from the above benefits regarding the medical status of an employee will be kept strictly confidential and within the clinic.

The company will develop a clear after care programme, jointly with the HIV / AIDS committee in the event that severance of employment due to illness shall occur.

4. PREVENTION

4.1 PROMOTION AND TREATMENT

The company will from time to time in consultation with the HIV / AIDS committee, embark on a promotion drive of events related to the elimination of stigmatisation, encourage consented medical testing and a systematic use of medically recommended treatment, or debate and dissemination of new information on the subject and health care quality and cost.

4.2 AWARENESS, EDUCATION AND TRAINING

The company will from time to time, in consultation with the HIV / AIDS committee, embark on an awareness, education and training drive including new researched information on new discoveries and precedence set by the legal system.

5. DISCIPLINE

In the event of untoward behaviour and attitude towards any employee living with HIV / AIDS, breach of confidentiality or disclosure of information in relation to HIV / AIDS, or interference with employees’ conditions of employment and benefits, appropriate disciplinary action will be taken.

Source : Rohm and Haas Company New Germany Human Resources Department

Complementing this policy, the organization implemented various ad-hoc programmes which were intended to create awareness and foster behavioural change. The intervention programmes evolve around HIV prevention. These consist primarily of displayed posters and the distribution of condoms at the company clinic.
Clinic
The company has a clinic that largely provides primary health care. It operates for 4 hours a day (week days only) and in attendance is a qualified nurse. A general practitioner is in attendance once a week for an hour to attend to and prescribe medication to employees. Voluntary testing is conducted at the clinic but it does not conduct pre- or post-testing counselling

Employee Benefits
Medical Aid cover is provided to all employees. This is done by way of equal contribution; the employer and employee each pay 50% of the total amount. Discovery Health and Sizwe Medical Aid is offered to salaried and hourly paid staff respectively.
5.5. EVALUATION OF R&H NEW GERMANY HIV/AIDS POLICY AND PROGRAMMES

5.5.1. Introduction

There are a number of elements that make up a successful workplace HIV/AIDS Policy and Programme. The first and most important element is to set up a committee through which discussion and consultation can occur. The members of this committee must include representatives from all levels of the organization, from shop stewards and other staff representatives through to senior management. The setting up of the committee is therefore the first step in the process.

Once it has been established, the HIV/AIDS committee can begin to address the other elements of the programme. These elements include:

- Policy;
- Legal issues;
- How to avoid HIV infection;
- Wellness management; and
- Monitoring and evaluation

These elements form the basis whereby the R&H New Germany HIV/Aids Policy and Programme will be evaluated.

5.5.2. Policy

A workplace policy on HIV/AIDS is central to developing and implementing an effective workplace programme. It provides the framework for action. The policy that the R&H Haas New Germany has recently implemented has been developed by the local Environmental, Health and Safety Department (EHS). Having written up the policy the EHS Department forwarded the document to the local Human Resources department to be included into the company’s policies and procedures manual.

Herein lays the first shortcoming of the policy document. Whilst the document makes
reference to a HIV/AIDS committee; there is no formal committee in place. It is important to remember that the fight against HIV/AIDS is best fought in a collaborative manner. The collaborating partners must include business, labour, government and non-government organizations. The fight will only be effective if all these sectors combine their efforts and resources and actively contribute to the development of the company’s HIV/AIDS policy and programmes.

There is open dialogue between management and shop stewards in relation to issues not only relating to, but also including the issue of HIV/AIDS. The dialogue takes the form of quarterly meetings between the union representatives and management. HIV/AIDS issues are tabled at this forum and invariably they are sacrificed to attain short term benefits by either management or the union – it is used as a bargaining tool.

Consequently there are stumbling blocks in this process and these include:
1. it is felt that some senior management staff are making the process difficult in that they tend to deal with issues in a piece meal fashion. There is no recurring budget set aside for HIV/AIDS education and research, which makes it difficult to plan long term strategies. The senior management place the onus on middle management to address issues which arise around HIV/AIDS.
2. the operationalisation and execution of the policy or plans from middle management become difficult and slow, as they do not receive support from top management. If top management fail to buy into this process, it is difficult to justify the allocation of funds to this particular exercise.

The establishment of a HIV/AIDS committee through which the policy can be generated is crucial as it also addresses concerns and outlines responsibilities of the various stakeholders. These being:
• concerns of employees
• concerns of employers
• responsibilities of managers
• responsibilities of employees
• responsibilities of supervisors
• responsibilities of shop stewards and trade unions

The contributions of the above-mentioned parties will be explicitly detailed in the recommendations section of this paper.

5.5.3. Legal issues
An organisation’s policy must be comprehensive and must reflect the organisation’s position on HIV/AIDS. The policy must cover all employees, prospective employees and all workplace situations and contracts of employment. In addition, the policy should address the following issues:

**Personnel issues**
• Job access for applicants with HIV;
• Job security of employees with HIV;
• A position on HIV testing of employees and applicants;
• Confidentiality and disclosure;
• Protection against discrimination;
• Employee benefits;
• Access to training, promotion and benefits;
• Performance management; and
• Grievance procedures

The policy must ensure that it conforms to the principles and intentions borne by the following:
• Constitutional Rights
• Labour relations Legislation including ILO Conventions
• Basic conditions of Employment
• Occupational Health and Safety Legislation
• Benefits/Pension Fund and other relevant legislation.
Every employee has a common law right to privacy. This means that an employee does not have a legal duty to inform their employer of their HIV status, nor may a healthcare worker reveal their HIV status to their employer without their consent.

The R&H New Germany policy meets all the legal requirements stipulated. It is strongly stated that disciplinary action will be taken against any employee who infringes upon a fellow employees constitutional rights. The development of the current policy can be classified as the most tangible achievement in the fight against HIV/AIDS. However the understanding thereof and the subtleties contained within the policy needs to be communicated to all employees. This is extremely important as the organization cannot hold any of its employees responsible if they do not understand the legal framework that is in place to ensure that constitutional rights are not infringed.

5.5.4. How to avoid HIV Infection

There are many possible types of prevention programmes, but in the workplace context there are a few which have been shown to be successful if they are implemented correctly.

These prevention programmes include:

- Awareness programmes;
- Education programmes;
- Condom distribution programmes;
- Universal precautions; and
- STD management

The effective diagnosis, treatment and prevention of STDs is one of the more important ways in which transmission of HIV can be reduced. It is thus one of the important prevention techniques.

The aspects of prevention programmes listed above are not successful if implemented only in isolation. Their effectiveness lies in the integration of individual aspects into one
prevention programme.

For example;

- A condom distribution programme will fail dismally if it is not accompanied by raising awareness and using education to change attitudes towards existing sexual practices.

- Providing information alone, without developing skills and confidence in people to enable them to protect themselves, will not result in any behaviour changes required for reducing the risk of HIV transmission.

Various programmes will be briefly described and commentary provided on the existence and success at the New Germany site.

- Risk reduction programmes

Chapter 3 (Economic Impact of HIV/AIDS), highlighted the socio-economic conditions that increased the risk of HIV transmission. It is important to look at the extent to which the organization creates these factors through its housing policy, recreation possibilities, support for families of employees and so on. Therefore, to start reducing the risk of transmission, this issue needs to be thoroughly investigated by the HIV/AIDS committee. However the absence of such a committee at the New Germany site means that risk reduction programmes cannot be identified and suitable intervention programmes implemented.

5.5.4.1. Awareness programmes

People need to be well informed about AIDS, so they can understand clearly how the virus is transmitted and what activities and interactions are safe. This in itself is undoubtedly not enough to promote widespread, effective behaviour change, but it is an essential part of what is needed. Greater understanding and awareness should remove irrational fears and lead to supportive attitudes towards infected people. If people living with HIV/AIDS can expect to be accepted and supported, they need no longer keep their diagnosis a close secret. They also need to feel that they are not going to be blamed for having become infected in the first place. Creative awareness-raising campaigns are an important component of a prevention programme. Awareness programmes should
provide information that is relevant, accessible in terms of language and literacy levels of employees and which is culturally sensitive.

The HIV/AIDS and STD committee has a crucial role in making sure that these principles are kept. The information should also be provided on an ongoing basis in order to make any impact. Awareness-raising activities can include exhibitions and theatre productions on HIV/AIDS and STD themes, campaigns linked to World AIDS Day, National Condom Week or AIDS Memorial Day. Awareness-raising activities are valuable in that they create awareness around HIV/AIDS and STDs in an informative, fun, non-threatening way. Awareness-raising activities can also be included in awareness campaigns, thereby increasing the number of people reached by the programme.

Since January 2002 to August 2003, R&H New Germany has conducted two awareness activities. The first was on the 20th December 2003 which constituted of each permanent employee being given a tee shirt as part of the sites National AIDS Day. Presentations were delivered by external guest speakers in English. The attendance was shockingly low (around 40%) as the manufacturing department was not informed of the talks and as such scheduled normal production for the day. Furthermore of those attending, many of the non English speaking employees battled to grasp the essence of the presentations and consequently lost interest.

The second awareness drive held during quarter two of 2003, resulted in a slightly higher turnout (around 50%). This again was shockingly low but to be expected as word went around after the first awareness talk. Furthermore the awareness campaign was held at a time when the two other shifts were unavailable and as such excluded 30% of the possible attendees.

The failure of the awareness programmes is again a consequence of the absence of a HIV/AIDS committee or the non functioning thereof. When these awareness programmes are scheduled they are determined by management. If however they were determined by the committee the awareness drive would be better co-ordinated and be delivered in a
manner which will be effective by taking culture and language preference into account.

5.5.4.2. Education programmes

Education programmes go beyond just providing information through campaigns. Education programmes must aim to provide people with skills that can help them adopt behaviours that will protect them from HIV and STDs (e.g. negotiation and assertiveness skills). Education is a two-way process of sharing information and understanding beliefs, attitudes and feelings. HIVS/AIDS education can take place most effectively in the workplace, even though most HIV transmission occurs outside the workplace. The workplace is where employees spend a large part of their time, where they are trained and where they interact with their peers.

Some of the more obvious reasons for conducting education programmes:

- Preventing the spread of HIV and STDs
- Preventing unfair discrimination against employees with HIV
- Facilitating the fair management of employees living with HIV
- Demonstrating management’s commitment to addressing HIV/AIDS in the workplace

Currently R&H New Germany does not appear to have a formal education programme. The organization combines its educational initiatives into awareness activities. There are posters in English at various locations the manufacturing set-up and there is a general belief by management that this is adequate. This further exacerbates the belief that HIV/AIDS is only an issue that affects the manufacturing employees (predominantly Black).

The absence of peer educators further substantiates the conclusion that education initiatives are overlooked. Peer educators are employees who provide information and education to fellow workers, their families or other community members.
5.5.4.3. Condom distribution Programmes

It is important to remember that condom distribution must be done as part of an education programme. Employees who are well informed about the function of condoms and how to use them will not be offended by their sudden appearance in the workplace. Peer educators can play important roles in initiating discussions on the advantages of using condoms and in supporting the condom distribution programme. Many people are self-conscious about being seen buying or taking condoms from a dispenser or from a health worker. Various creative strategies for making condoms more acceptable and accessible can be used, such as workplace advertising campaign or industrial theatre. Different ideas should be listed by the HIV/AIDS committee and investigated thoroughly to find the best one(s). A multi-faceted strategy might be possible in a larger workplace. This strategy could include free distribution at the workplace clinic, social marketing through condom vending machines and peer educators who distribute condoms. Smaller workplaces may appoint a specific person who can distribute condoms confidentially, or may simply choose to provide information to employees about nearby outlets (for example, a family planning clinic or pharmacy). An increase in the number of condoms distributed, occurring together with a decrease in the incidence of STDs, could indicate that employees are changing their sexual practices as a result of the education programme.

The organization must carefully consider whether condoms should be distributed free of charge or whether a nominal fee will be charged. One important advantage of charging for the condoms is that people will tend to make better use of them, when compared to free distribution. Social marketing of condoms includes encouraging people to use condoms effectively and consistently through:

- Education and information around condoms and safer sex (for example, done by peer education);
- Providing accessible condoms where and when they are needed at a cost that is affordable;
- Targeting information and access to condoms at people in the broader community (such as sex workers and indeed all women);
• Using tried and tested advertising techniques to “sell” the concept of condom use; and
• Marketing both the female and male condoms as this provides women with more control over their use.

The R&H New Germany operation provides free condoms at its on-site clinic. However is located in an area which is visible to anyone in the waiting area. Consequently those employees who would feel embarrassed to take condoms if noticed tend to shy away. However recent statistics on consumption rates indicate higher usage rates and more during the week leading to the month end. There are two plausible explanations for this. Firstly many of the manufacturing staff employees would return home to their spouse and in order to protect their spouse from HIV or a STD would use a condom. Secondly, month end is when all employees are paid. Consequently it is when those employees who would engage the services of a sex worker would most likely have money to pay for the service.

Nevertheless, consumption is increasing; which is most encouraging. However since there is no data reflecting a decrease in STDs or HIV infections, the usage of condoms must be continued to be aggressively encouraged.

An additional shortcoming of the present distribution point is that it only available when the company clinic is open; which is for four hours per normal working day. Consequently those employees who are not on site during the clinic hours will not have access to the free condoms. Based on the current shift rotation system, any one shift will only have access to the clinic for one week out of every three. Not very convenient. Whilst it may be argued that those employees who cannot access the free condoms due to their working shift hours may request their colleagues to acquire them on their behalf and supply it to them when they come on site; there would also be those who would shy away from such a practice due to personal and cultural reasons.
5.5.5. Wellness Management

Wellness management is a useful concept to use in relation to HIV/AIDS and STD, as it clearly highlights the need and importance of keeping a person with HIV/AIDS healthy. It also highlights the need to keep a person with an STD healthy to prevent the spread of HIV. This section answers the question: “What is done to keep employees as healthy as possible and therefore as productive as possible for as long as possible?”

Early diagnosis and effective, complete treatment of an STD can reduce the risk of sexual transmission of HIV. This diagnostic and treatment service will only be effective if it is done together with an education and primary prevention programme (as discussed earlier).

Most employees prefer to use private doctors or public health services if they have an STD, even if services are available in the workplace, as they fear discrimination by their colleagues and/or employer. If STD services are to be provided in the workplace, they should be integrated with other health services, such as basic health care, maternal and family planning services. The users are not easily identified as STD patients. STD services must be user-friendly and confidential if they are to be utilised effectively by employees; health workers should have a non-judgmental approach to counselling and treatment and be prepared to give patients advice and listen to their views.

5.5.5.1. Counselling people with HIV/AIDS or STDs

All counsellors, even health workers, need specialised training, and the minimum standard is a two week counselling training programme. The effectiveness of an STD management programme increases when health workers counsel STD patients. The counsellor should aim to provide information and support in such a way that the person is encouraged to change his/her behaviour and face the issue of having an STD or HIV in a positive manner (in other words, take constructive action). Specific skills are required in order to be an effective counsellor. The HIV/AIDS and STD committee should investigate the possibility of either using outside agencies to provide counselling or to select employees to undergo training in counselling skills. These could be the same employees who are trained as peer educators. Counselling should not just provide
information but should enable the person to choose various options while providing a psychologically and emotionally supportive relationship. A person living with HIV will require counselling at various stages. At the initial diagnosis stage, the person with HIV requires much support to come to terms with the realisation of having the disease. Later, when the person with HIV starts developing consistent symptoms such as recurrent opportunistic infections, he/she will require further counselling and support. This signals the early stages of the AIDS phase. During the period of AIDS, the person will require support and counselling to help her/him come to terms with living with constant illness and facing death.

5.5.5.2. Counselling around testing issues

It is important to ensure that a person has access to counselling both before he/she undergoes an HIV test as well as after the test results are known, whether negative or positive.

The counsellor should discuss with the employee all the potential advantages and disadvantages of knowing his/her HIV status during pre-test and post-test counselling. Other issues which should be covered are:

- Dealing with a negative test result;
- Understanding the consequences of a positive test result;
- Dealing with a positive test result;
- Identifying support systems; and
- Referral for further counselling or other resources.

In cases where employees test positive, they must have access to on-going counselling. Doctor/patient confidentiality must be observed and the test results revealed only if the patient has given consent. The issue of confidentiality should be discussed with patients, including all the potential advantages and disadvantages of disclosing their HIV status to employers, colleagues, families and friends. Patients should be made aware that they are not legally obliged to disclose their HIV status to anyone. HIV/AIDS can cause severe emotional distress to people who have HIV, their families, friends and fellow workers. If
an employer does not provide a counselling service, the employee should be referred outside the workplace and given appropriate support by the employer (such as time to attend counselling sessions.) It might be best to provide counselling services outside of the workplace to ensure confidentiality and remove any stigma associated with “going for counselling”. Counselling should last as long as is necessary for the employee. A counselling or referral service for family members, friends and colleagues should also be considered.

5.5.5.3. Partner notification and disclosure
Generally, employees will inform their partners and families that they have HIV. The potential benefits and disadvantages of disclosure and how to do this should be discussed between the employee and her/his counsellor.

5.5.5.4. Care for people with HIV/AIDS
As the epidemic grows, many more employees will become infected and develop the clinical and symptomatic phases of the disease. Costs can be contained if effective primary care services can be provided to manage HIV and its related conditions. HIV/AIDS can be kept an affordable condition by keeping people with HIV/AIDS out of hospital, by early intervention for opportunistic infections and prophylaxis for these infections.

5.5.5.5. Links with other programmes in the workplace
HIV/AIDS and STD programmes should be integrated into other workplace health and education services. Examples of important and useful linkages are those with occupational health and safety programmes and tuberculosis (TB) control.

5.5.5.6. Counselling services
Employees who are HIV-infected are more likely than other people to get sick with TB. As part of post-test counselling, employees infected with HIV should be counselled to seek care if they develop symptoms of TB. Employees who have TB or who are HIV-infected should be counselled on their legal rights. Specifically, they should be made
aware that it is illegal to fire a person because they have TB or because they are infected with HIV. Confidentiality should be ensured for TB patients and people infected with HIV.

Whilst the R&H New Germany Policy document states the employees are encouraged to use the expertise and assistance of the on site clinic for counselling; there is a strong belief amongst a vast majority of the employees that the current nurse is not capable of doing this. When a random sample of those employees who undertook voluntary HIV testing, were asked if they were counselled prior to the test; all replied negative.

Employees are encouraged to seek external counselling if necessary; however the availability and location has not be published. Furthermore the absence of peer educators/counsellors exacerbates the lack of support for a wellness management programme.

The company policy also mentions that there will a clear after care programme developed in the event that severance of employment due to illness shall occur. This is extremely disturbing as it is obvious that no clear policy and procedure is place to deal with this eventuality - there could be nothing more disconcerting for an employee who is HIV positive.

5.5.6. Monitoring and evaluation

Monitoring is a systematic and continuous assessment of a programme over a period of time. An evaluation on the other hand, is an assessment of the impact of the programme at one point in time. Monitoring and evaluation complement each other. There are two aspects to be monitored:

- The impact of HIV/AIDS in the workplace; and
- The effectiveness and impact of the HIV/AIDS and STD programme
5.5.6.1. Importance of monitoring and evaluation

Monitoring and evaluation have an important role to play in ensuring that a programme is appropriate and effective. We cannot continue running a programme without, at some point, standing back and checking on what we are doing. Monitoring and evaluation are ways of assessing how well the programme is running, the effect of the programme on the workplace and how effective it is in changing people’s behaviour with regard to HIV/AIDS and STDs.

5.5.6.2. Baseline information

It is important to have baseline information on HIV/AIDS and STDs in the workplace in order for the HIV/AIDS committee to develop a good monitoring and evaluation component to the HIV/AIDS and STD programme. Baseline information can be obtained by doing a baseline study. This is a survey of the indicators of interest (for example, number of condoms distributed) at the start of the programme. This provides the starting point against which all future measures of the indicators can be compared. The difference between the baseline measure and future measures tells how effective the HIV/AIDS and STD programme has been. It is much more difficult to see the impact of the programme if the baseline information has not been gathered. The baseline must include measurements on all indicators of interest. Much of the information needed for the baseline can be obtained from the needs analysis which is undertaken as part of the policy and programme development process.

5.6.6.3. Indicators

Indirect indicators

Prevalence of STDs and the number of condoms distributed: these two indicators together can indicate behaviour change with regard to safer sex practices.

Number of employees volunteering to become peer educators: this could indicate levels of awareness and motivation around HIV/AIDS and STDs in the workplace and is an indirect indicator of behaviour change.
Direct indicators

- Number of condoms distributed: this can indicate the effectiveness of an education programme on the use of condoms.
- Number of employees attending/participating in HIV/AIDS and STD education programme: this could indicate whether the programme is reaching those targeted (for example, all employees).

5.5.6.4. Monitoring the impact of HIV/AIDS in the workplace

The impact of HIV/AIDS can be monitored by maintaining records on sickness or absence and looking at causes of the absence; how often employees take special or compassionate leave; staff turnover by reason for departure (including early retirement); and death by cause. These records will help identify the possible impact of HIV early on and enable the company to respond appropriately. The kinds of question to ask include: “Are there any key personnel whose loss would cripple the plant?” If the answer is yes: “How do we respond?” The actual cost of AIDS cases to employers will vary greatly depending on the conditions of employment, the level of staff and the way in which they are treated.

5.5.6.5. Monitoring the HIV/AIDS & STD programme

There are some important considerations to bear in mind when monitoring a programme:

- Decide which indicators you will measure. In other words, how will behaviour changes be measured?
- Decide how the indicators will be measured, for example, in-depth interviews with a sample of employees or a questionnaire handed out to all employees. What questions will be included in the questionnaire? Will the company keep records of attendance at work, sick leave, compassionate leave and so on?
- Calculate the costs of the monitoring process steps.
- How often will monitoring take place to give the maximum amount of information with the least disruption and cost?
- Quantitative indicators include the number of people attending the education programme and the number of condoms distributed. (it is important to identify a
range of indicators). Qualitative information requires input from all role players as to the effectiveness and efficiency of the programme.

5.5.6.6. Evaluating an HIV/AIDS & STD programme

Evaluations usually measure the impact of an intervention or programme to see if it has an effect or not. Evaluations are usually done after the programme has been in existence for some time. The information gathered through ongoing monitoring can be very useful as part of the evaluation. Evaluations also provide information which can be put together with other sources of information to provide a picture for the whole country. However, it is not easy to determine the exact effect of a programme. All that can be done is to measure various changes and try to establish whether they are related to the implementation of the programme. It is very difficult to pinpoint exactly which factors may or may not have had an impact. For example, one cannot assume that people are using more condoms just because more condoms are being distributed in the workplace; you also need to look at whether the incidence of STDs is decreasing.

Currently the organisation does not utilise any structured monitoring and evaluation techniques. The only measurements currently used are:

- Monthly condom consumption rates
- Head count when the ad-hoc HIV/AIDS awareness sessions are held.

This stems largely from the absence of a functioning HIV/AIDS committee that can identify the indicators (both direct and indirect) and ensure that they are monitored and evaluated. There exists a total reluctance to divulge the prevalence of a STD as the majority of the workforce believes that management will use the results to infer HIV status. There is consequently a lack of trust and the absence of any valid measurements, renders any HIV/AIDS programme highly susceptible to failure. This is so since modifications and fine-tuning to ensure appropriateness of the programme cannot be done.
Furthermore attempts by the author to conduct a KAP Study (Knowledge, Attitudes and Perception) were rejected by management even though scientific research techniques would have been followed coupled with anonymity. The KAP study would have proven immensely valuable as currently the organisation does not have any baseline information to monitor and evaluate its HIV/AIDS programmes.

5.6. RECOMMENDATIONS:

5.6.1. Introduction

The HIV/AIDS epidemic affects everyone, every individual, every family, every social institution, every organisation and indeed every business, big or small. Although there are indications that HIV infection may be spreading faster among the underprivileged sectors of the population (poor, marginalized, uneducated, etc.), so far the toll among the urban young adult population has been higher. In South Africa it is estimated that as many as 1 000 people, mostly young people, are infected every day.

The HIV/AIDS epidemic poses one of the greatest challenges to business development in Africa. The epidemic claims some of the best business leaders, managers and a great number of workers at all levels of the production system. HIV-related absenteeism, loss of productivity and the cost of replacing workers lost to AIDS threaten the survival of a number of businesses and industrial sectors in the increasingly competitive world market. HIV/AIDS does not affect only workers. By claiming a large part of the urban population with disposable income and by impoverishing families and communities, it also effects the market base of African business.

It is clear that no one sector alone can make a significant inroad in the fight against the epidemic. A true partnership involving the government, the private sector and the community is essential to face the problem. The business community is realising that its very survival depends on how effectively it joins forces with other partners to face the problem. The workplace provides an excellent environment to implement a comprehensive HIV/AIDS programme and policy reform.
5.6.2. Principles for policy and programme development

These principles are important because they have been shown to have a significant impact on whether or not an HIV/AIDS programme is effective:

- HIV/AIDS and STD issues must be integrated into everyday activities of the organisation. Induction programmes for staff should include a module on HIV/AIDS and STDs to raise awareness. Social events (for example, open days) organised by the workplace could include an aspect of HIV/AIDS (for example, a stand that promotes using condoms).

- The management of the organisation should demonstrate a clear commitment to the HIV/AIDS and STD strategy. It is very important for workers to see this commitment in concrete form through non-discrimination and support for people with HIV/AIDS and STDs (a policy in a manager’s drawer is not a concrete commitment). Concrete commitment will go far in developing mutual trust between employers and employees and facilitating an atmosphere where people are willing to undergo voluntary HIV testing and possibly disclose their HIV status.

- Transparency is necessary. For example, policy documents should be available and the documents should be written in a way that is accessible to employees.

- Any component of the strategy must be thoroughly investigated and an implementation plan developed on the basis of this investigation. Implementation plans should be accountable in their action, be fully costed and have clear responsibilities and time lines.

- In order to fully understand the impact of the HIV/AIDS epidemic on the workplace, a number of factors have been taken into account. These include the HIV prevalence rate in Africa as well as the effect of the epidemic on benefit schemes and health care. Other information is available from relevant experts in the field of benefit management and health care.

5.6.3. Importance of a policy

- A workplace policy on HIV/AIDS and STDs is central to developing and implementing an effective workplace programme. It provides the framework for action.
• An HIV/AIDS policy defines your organisation’s position and practices in relation to employees with HIV/AIDS and to preventing the spread of HIV.

• The policy prepares the organisation for the time when it will face the presence of HIV infection and AIDS, if this has not happened already. The policy must be developed through consultation with all levels of workers.

• An HIV/AIDS and STD policy also demonstrates your organisation’s concern and commitment in taking active steps to manage the HIV/AIDS epidemic. However, a commitment in the form of policy must be taken further into concrete action in the form of an HIV/AIDS and STD programme.

5.6.4. Procedure for developing an HIV/AIDS & STD policy

Developing a policy takes time if proper consultation takes place. This section provides a step by step account of how to go about the process. Although these steps suggest that a policy must precede any programme development, this is not necessarily the case. The first two steps could lead directly to the development of a programme before a policy is formulated. It is up to the individual organisations to decide how they will proceed.

Step 1 Elect the HIV/AIDS and STD committee

This should have representation from shop stewards, supervisors, management, the occupational health nurse (or other health worker if your organisation has one) and other interested/skilled individuals. It is especially important to have representation of top management on the committee. This gives the committee greater decision making powers and demonstrates that management is commitment to the process.

Step 2 The HIV/AIDS and STD committee investigates the needs of the organisation in relation to HIV/AIDS and STDs

This investigation will form part of a baseline study of the indicators for the evaluating and monitoring. Important factors in determining the organisation’s needs are:

• The number of employees;
• The health, information and education facilities already available;
• The extent to which these facilities are being used;
• The attitudes of employers and employees to HIV/AIDS and STDs; and
• The extent to which management is willing to commit themselves to managing the impact of HIV/AIDS.

**Step 3** The HIV/AIDS and STD committee meets to discuss and formulate a draft policy. (see examples 1-4)

**Step 4** Circulate the draft policy for discussion and comment and then revise.

**Step 5** Adopt the policy

**Step 6** The HIV/AIDS and STD committee uses the policy to develop the implementation phase of the strategy

**Step 7** Communicate the policy and programme implementation to everyone in the organisation

This could be done during the induction of new employees, during education and training sessions or by displaying the policy throughout the workplace.

**Step 8** Monitor and evaluate the programme to determine its effectiveness

This helps in making changes to the programme.

**Step 9** Review the policy regularly in light of new information about the epidemic and treatment for HIV and AIDS.

Reviews could take place annually or at any time, as necessary.
5.6.5. Contents of a HIV/AIDS Policy

The policy must be comprehensive and must reflect the organisation’s position on HIV/AIDS. The policy must cover all employees, prospective employees and all workplace situations and contracts of employment. In addition, the policy should address the following issues:

Personnel issues

- Job access for applicants with HIV;
- Job security of employees with HIV;
- A position on HIV testing of employees and applicants;
- Confidentiality and disclosure;
- Protection against discrimination;
- Employee benefits;
- Access to training, promotion and benefits;
- Performance management; and
- Grievance procedures

Programme issues

- Organisational risk reduction;
- First aid/universal precautions;
- Education and awareness programmes;
- Other prevention programmes; and
- Wellness management

Monitoring and evaluation

There should be regular evaluation, monitoring and review of the policy and programme.
5.6.6. Human Resource Issues

Performance management

Employees living with HIV will be productive for a longer period if they receive the medical, social and psychological support they need. An employee may not be dismissed simply because they are HIV-positive. An employee who develops AIDS should be treated in the same way as any other employee with a life-threatening illness. If procedures for assessing and managing the performance of employees do not already exist, these must be developed pro-actively and transparently so that, as the impact of AIDS becomes more apparent, employers are able to respond rationally.

It is advisable to develop procedures for performance assessment and management, so that all supervisors and managers are clear on the criteria for dealing with:

- Absenteeism;
- Sick leave;
- Transfer to lighter duties;
- Ill-health;
- Early retirement;
- Employee counselling and so on.

Employees with HIV may need support in the following areas:

- Facilitating the employee’s access to health services outside the workplace if these are not available in the workplace;
- Giving the employee time off to attend clinics or counselling;
- Transferring the employee to lighter or less stressful duties, where it is both necessary and possible; and
- When employees are no longer able to work, they should be given early retirement with the benefits normally due to those who retire due to ill health. Employees who retire due to ill-health must be informed in advance of the benefits for which they may or may not be eligible (i.e. medical aid, life insurance and so on).
5.6.6.1. Guidelines for Human Resource Department

With regard to the selection of job applicants it is the relevant recruitment officer’s responsibility to ensure that a medical examination takes place and that consideration is given to the examination results before a selection decision is made.

With regard to employees who develop a life threatening disease it is the task of the human resources manager to advise and guide managers in the management of these employees as well as to provide access to educational material and a network of medical professionals.

Human Resources should, therefore, ensure that it is fully and comprehensively informed on matters relating to the employment of employees with life threatening illnesses.

It is recommended that Human Resources form a multi-disciplinary advisory body that may be referred to for technical information as and when it is required. Such a body could compromise advisors from areas such as the legal field, industrial relations, pension fund, medical aid society, medical fraternity (e.g. experienced in HIV/AIDS) and the trade union.

In providing a professional service to line management, Human resources should be aware of the following points:

- A degree of judgement will be necessary in handling most cases and as such human resources managers should be guided by the core corporate values of fair employment practice.
- Human resource managers must be aware of the industrial relations implications that apply to an employee with a life threatening illness.
- Confirmation that a person has a life threatening illness can have a devastating psychological impact on that person. Psychological counselling is therefore essential, if desired. It is recommended that if an employee suspects that he/she has life threatening illness, particularly HIV/AIDS, he/she should be referred for pre-test counselling and only then to a medical practitioner for actual testing. It is further essential that the employees avail themselves of post-test counselling.
- The greatest possible care must be given to observing the strict confidentiality applicable to employees with a life threatening disease.
• Human resources managers should be sensitive to an employee’s continued need for psychological counselling and should, therefore, monitor the behaviour of afflicted employees in conjunction with the manager concerned.

• Should the employee’s condition deteriorate to the extent that a threat is posed to fellow workers or that the employee simply cannot perform adequately, then the employee’s incapacity will have to be addressed, for example, consideration be given to early retirement.

5.6.6.2. Guidelines for managers/supervisors

When approached by a subordinate with a life threatening illness the manager/supervisor must be sensitive to the employee’s condition and respect the confidentiality of the information given to him/her by the subordinate. When dealing with employees with life threatening illnesses the manager/supervisor should:

• Be aware that he/she is the manager/supervisor controlling the situation and that it falls to him/her to manage the situation. The role of HR is to provide a professional service that enables the manager to manage the problem as effectively as possible.

• Make sure that he/she is fully informed of the employee’s rights, conditions of employment, industrial relations implications and the range of professional services provided by the human resources manager.

• Be sensitive to the fact that continued employment for an employee with a life threatening illness may sometimes be therapeutically important in the remission or recovery process, or may help to prolong that employee’s life.

• Continuously ensure that the afflicted employee does not pose a threat in the workplace to himself, his co-workers or to customers.

• Be sensitive and responsive to co-workers concern and emphasise employee education that is available through Human resources.

• Not give special consideration beyond normal transfer requests for employees who feel threatened by a co-worker’s life threatening illness, provided that the co-worker does not pose a valid threat.
• If warranted, to make reasonable accommodation for employees with life threatening illnesses in conjunction with the advice given by the relevant Human resources manager.

• Be aware that co-workers may only be informed of an afflicted person’s condition with the written consent of that person.

• Encourage employees who suspect that they have a life threatening illness to seek immediate medical attention.

• Encourage all employees to avail themselves of the educational material provided by Human resources.

**5.6.7. Education Programmes**

Education programmes go beyond just providing information through campaigns. Education programmes aim to provide people with skills that can help them adopt behaviours that will protect them from HIV and STDs (e.g. negotiation and assertiveness skills). Education is a two-way process of sharing information and understanding beliefs, attitudes and feelings.

**5.6.7.1. Reasons for conducting an education programme**

Preventing the spread of HIV and STDs

• There is presently no vaccine or cure for HIV/AIDS. The most effective way to slow down the spread of HIV/AIDS is to reduce the rate of transmission from infected to uninfected people. The first step towards lowering a person’s risk of becoming infected is providing knowledge and awareness of HIV. Knowing about and practicing safer sex is the best way of remaining HIV negative, since the most common way of being infected with HIV is through sexual intercourse.

• HIV/AIDS education can take place most effectively in the workplace, even though most HIV transmission occurs outside the workplace, even though most HIV transmission occurs outside the workplace. The workplace is where employees spend a large part of their time, where they are trained and where they interact with their peers.
• However, HIV may be transmitted in the workplace through contact with another persons blood (for example, if there has been a workplace accident). Education programmes should include training around what to do if there is an accident in the workplace and how employees can perform first aid and handle blood spills safely in an emergency. (see Section 5.5 for further details).

• STDs are important in the HIV/AIDS epidemic because there is a greater chance of a person being infected with HIV if they already have an STD. Because STDs are curable, STD prevention and treatment is an effective way to slow down the spread of HIV/AIDS.

Preventing unfair discrimination against employees with HIV
Many people experience intense confusion and anxiety about how HIV could affect their job security and their relationships in the workplace (with managers and colleagues) and outside it (with their families and friends). Many people have heard of others who have lost their jobs or pensions because they have HIV. Some people living with HIV/AIDS have been discriminated against by their employers, co-workers, friends or family. These irrational responses and prejudices and the fear they produce in employees can have a serious impact on productivity and industrial relations. Fear and prejudice can be reduced by appropriate education around the employer’s attitude to HIV/AIDS, the facts of transmission and the rights of employees in relation to HIV.

Facilitating the fair management of employees living with HIV
An education programme for employees at all levels of a company or organisation, including managers, can greatly facilitate the management of those employees who have HIV. Taking active steps to prepare for the full impact of HIV/AIDS will allow a more reasoned, appropriate and effective response.

Demonstrating management’s commitment to addressing HIV/AIDS in the workplace
• Management support for the HIV/AIDS programme demonstrates that management is sincere about addressing HIV/AIDS in the workplace, the welfare of employees and the well-being of the company.
• In this context, management should provide a budget specifically for the HIV/AIDS and STD programme.

• Management should participate in the AIDS committee and in HIV/AIDS education and training programmes.

Contents of a successful education programme
In this section we highlight some of the characteristics of a successful HIV/AIDS and STD education programme:

• Education should be on-going, rather than a once-off or annual training course. This allows the effectiveness of the programme to be monitored as it takes place and the content changed as necessary. It also keeps people thinking about HIV/AIDS, so that the issue remains accepted and visible in the workplace.

• Education and awareness-raising around HIV can easily be integrated into existing training courses such as industrial relations, personnel management, first aid, occupational safety, literacy, induction and supervisory and management courses. This entails no extra costs if HIV-related examples are used to get people thinking about HIV could effect their situation in the workplace.

• Education should take place in small groups in an informal setting so that employees feel comfortable to ask questions and discuss their feelings openly.

• Peer educators can be used in almost any workplace, whether small or large. Peer educators are employees who are trained to deliver HIV/AIDS education and/or counselling to fellow-workers. Peer educators should be volunteers or be selected by their colleagues, but should have certain qualities such as empathy, maturity, good communication skills and popularity among their colleagues. Peer educators are well-placed to initiate a condom distribution programme.

• Another source of peer education is contact with peers with HIV from within or outside the workplace. Contact with peers with HIV can remove myths and fears very effectively, but should be handled very sensitively, in small groups and only as one part of the comprehensive education programme. This type of education is only possible if some employees with HIV are prepared to disclose their HIV status.
• The specific content of an education programme should be decided in consultation with the HIV/AIDS committee and/or outside agencies which specialise in workplace HIV/AIDS and STD education.

5.6.7.2. Principles of an education programme

These principles should underlie any education programme that is implemented.

• Start where people are, with their existing knowledge, beliefs, fears and hopes, attitudes and practices.
• Take into account the socio-economic and cultural context of people’s lives.
• Correct information in a supportive way.
• Help people express their feelings and describe their own experiences.
• Help people to identify, understand and articulate their own problems and to explore opportunities for change and development.
• Do not try to take responsibility away from people by telling them what to do.

The decision must be theirs. Peer educators are employees (or members of employee’s families) who provide information and education to fellow workers, their families or other community members. They should fulfil the criteria set out below.

Selecting & training peer educators

• The age, language, social and work status of peer educators should correspond, to some degree, with those of their co-workers. For example, each peer educator could be responsible for education in his/her specific section or ‘floor’ of the workplace.
• Peer educators need to be highly motivated since they perform a difficult task on a voluntary basis. Group training sessions will help them remain motivated through sharing the experiences and problems they encounter.
• You should consider cultural and gender issues when selecting peer educators. Some of the issues relating to HIV/AIDS and STDs are highly personal and people may only be comfortable discussing them with someone of the same gender and cultural background.
• The language(s) used by the peer educators must be taken into account: people need to be educated in a language that they feel comfortable using.

• Peer educators should be trained as necessary, either in-house or externally through an AIDS training organisation.

• Family members of employees or others outside the workplace may also work as peer educators, working in the broader community to educate sex workers, school children and non-working mothers.

5.6.7.3. Issues to be covered in an education programme

There are a number of issues that should be covered within an education programme.

Transmission of HIV

• How can HIV be transmitted between people;
• How HIV is not transmitted; and
• Most common mode of transmissions (unprotected sex).

STDs

• The role of STDs in transmission of HIV/AIDS;
• The importance of prompt treatment for STDs;
• Where to get treatment;
• Importance of using condoms during treatment;
• Informing your partner that you have an STD; and
• The importance of your partner being checked and treated too (see Section 6.1)

Safer sex

• The advantages of safer sex for preventing HIV/AIDS, STDs and pregnancy;
• Problems people may encounter in introducing safer sex into a relationship;
• How to deal with a partner who does not want to practice safer sex;
• Communication around safer sex; and
• Techniques for safer sex (including the importance of using condoms and non-penetrative sex).
Condoms

- The role of condoms in preventing HIV/AIDS, STDs and pregnancy;
- How to use the condom; and
- Practice in applying a condom. The use of both male and female condoms should be explained.

Attitudes, myths and misconception

There are many myths and misconceptions about HIV/AIDS and STDs which should be addressed by an education programme.

Legal and ethical issues

Information on the rights and obligations of employers and employees with regard to HIV/AIDS and STDs should be provided and discussed.

Women's rights

In educating women about their rights with regard to sexuality and reproduction, specific efforts should be made:
- To provide women with skills for employment; and
- To empower women to make their own informed decisions about their bodies and their sexuality.

Practical suggestion

Existing training courses can be used to educate employees at all levels about HIV/AIDS and STDs. For example, during a training course on management skills, participants could be asked to discuss how they would approach an employee whose supervisor had reported that she had been absent from work for four days in the past month and was not as productive as usual.

Links with educational services outside the workplace

Many organisations provide HIV/AIDS and STD educational materials and/or educators who will visit workplaces on a regular or once-off basis. These organisations may also
help to further develop the R&H New Germany HIV/AIDS policy and initiate a workplace programme. A database of organisations which provide these resources is should be developed.

5.6.7.4. DOTS in the workplace – TB education, diagnosis, treatment and counselling

Tuberculosis is the most common opportunistic infection and the biggest killer of people living with AIDS. Tuberculosis is often the first AIDS-defining illness which changes a person’s status from HIV-infected to AIDS. By attacking the immune system, HIV makes a person 30 times more likely to progress from TB infection to TB disease. Fortunately, TB can be cured as successfully in people who are infected with HIV as in those who are not. However, if a patient with HIV and TB is not treated promptly, the patient may die in weeks or months. People with TB or HIV face similar problems of stigma, fear and discrimination, and have shared needs for counselling, care and support. The link between TB and HIV is so strong that all workplace programmes for HIV/AIDS and STDs should include the following elements:

Education

Employers and employees should be taught the symptoms of TB and should be encouraged to go to a clinic to have their sputum examined if they develop TB symptoms. The symptoms of TB are:

- Cough for more than 3 weeks;
- Chest pain;
- Loss of appetite and weight;
- Night sweats;
- Feeling tired and weak; and
- Coughing up blood

Education about TB should also include the following:

- HIV increases the risk of developing TB, but not all HIV-infected people have TB and not all people with TB are HIV-infected.
• TB can be cured as easily in HIV-infected people as in people who are not HIV-infected.
• TB patients on appropriate treatment are not infectious.
• TB patients can continue working and can receive TB treatment by the treatment supporter in the workplace.

Diagnosis
A person with symptoms of TB should go to a clinic or hospital to be investigated. The person will cough material (sputum) up out of the lungs which will be examined under a microscope. If the TB germ is seen under the microscope, the person should be started on TB treatment. Chest x-rays and sputum cultures may also be used for diagnosis of TB. People diagnosed with TB should be given at least 2 weeks of sick leave to allow them to recover. After 2 weeks of treatment, the person should be reassessed by a health worker to determine if she/he can return to work. At this time most TB patients are able to return to work on TB treatment without putting their co-workers at risk. TB patients on correct TB treatment will not infect other people.

Contacts
Contact tracing is not necessary for adults who have been working with someone who develops TB. Only children under 5 years old who have been in close contact with a person with TB should be investigated at a clinic. TB patients should be encouraged to tell their adult contacts that they should seek care if they develop symptoms of TB.

Treatment – DOTS in the workplace
TB can be cured with a strategy called Directly Observed Treatment, Short-course (DOTS). The most important part of the DOTS strategy is that a treatment supporter observes a TB patient swallow each dose of TB treatment for the entire 6 to 8 months of treatment. Anyone who is dependable and accountable to the health system can be a treatment supporter. Besides health workers, treatment supporters can be managers, supervisors, co-workers, peer educators, community members, teachers shop keepers and family members. A treatment supporter can be chosen by the TB patient in consultation.
with the health worker. For R&H employees, it is often most convenient to receive their TB treatment at the workplace. The increased convenience of receiving TB treatment at work makes it more likely for the person to complete their TB treatment and be cured. Because people who are on correct TB treatment do not infect other employees, providing DOTS in the workplace prevents the spread of TB.

The TB patient has the following responsibilities:

- Swallow each dose of TB treatment.
- Report side effects and any other problems promptly
- Attend the clinic for appointments.
- Inform the clinic if resigning, going on leave, absent from work or unable to receive TB treatment for any reason.

The employer has the following responsibilities:

- Support and encourage DOTS in the workplace.
- Allow time for employees to be trained by health workers to provide DOTS in the workplace.
- Allow time for employees to go to the clinic.
- Attempt to provide a private space where a TB patient can receive TB treatment.

Counselling services

People who are HIV-infected are more likely than other people to get sick with TB. As part of post-test counselling, people infected with HIV should be counselled to seek care if they develop symptoms of TB. Employees who have TB or who are HIV-infected should be counselled on their legal rights. Specifically, they should be made aware that it is illegal to fire a person because they have TB or because they are infected with HIV. Confidentiality should be ensured for TB patients and people infected with HIV.
5.6.8. Monitoring and evaluating a programme

In this section we look at why it is important to monitor and evaluate a programme and how to go about it. We will also look at some indicators that R&H New Germany can use to see what changes have come about in employees' behaviour, attitudes and knowledge in relation to HIV/AIDS and STDs.

Monitoring is a systematic and continuous assessment of a programme over a period of time. An evaluation on the other hand, is an assessment of the impact of the programme at one point in time. Monitoring and evaluation complement each other. There are two aspects to be monitored by the R&H New Germany HIV/AIDS committee:
1. The impact of HIV/AIDS in the workplace; and
2. The effectiveness and impact of the HIV/AIDS and STD programme

5.6.8.1. Importance of monitoring and evaluation

Monitoring and evaluation have an important role to play in ensuring that a programme is appropriate and effective. R&H New Germany cannot continue running a programme without, at some point, standing back and checking on what we are doing. Monitoring and evaluation are ways of assessing how well the programme is running, the effect of the programme on the workplace and how effective it is in changing people’s behaviour with regard to HIV/AIDS and STDs.

5.6.8.2. Baseline information

It is important to have baseline information on HIV/AIDS and STDs in the workplace in order for the HIV/AIDS committee to develop a good monitoring and evaluation component to the company’s HIV/AIDS and STD programme. Baseline information can be obtained by doing a baseline or KAP study. Refer to Appendix for a copy of the questionnaire that can be used in the KAP study at R&H New Germany. This is a survey of the indicators of interest (for example, number of condoms distributed) at the start of the programme. This provides the starting point against which all future measures of the indicators can be compared. The difference between the baseline measure and future measures tells you how effective the HIV/AIDS and STD programme has been. It is
much more difficult to see the impact of the programme if the committee does not have
the baseline information. The baseline must include measurements on all indicators of
interest. Much of the information needed for the baseline can be obtained from the needs
analysis which is undertaken as part of the policy and programme development process.

5.6.8.3. How to monitor an HIV/AIDS & STD programme
In this section we look at some examples of indicators that could be used to monitor and
evaluate the programme. It is important that indicators are chosen in that they are useful
and appropriate. Condom distribution and aspects of peer counselling and education may
be used as indicators at the New Germany operation.

Reasons for monitoring & evaluating

- Monitoring and evaluating a programme is necessary to show that the programme is
cost effective.
- Ongoing monitoring allows the HIV/AIDS committee to see how and where the
programme must change. This process also generates an awareness of the programme
and gets people thinking about what needs to change and how to bring it about.
- Evaluation is usually done after the programme has been in operation for a while, and
it provides a way of measuring the impact. This is important in terms of planning for
the company’s budget allocations.

Useful and important indicators for monitoring & evaluating:

- Condom distribution;
- STD prevalence;
- Attendance at STD clinics;
- Absenteeism;
- Deaths in service
- Number of awareness and education sessions provided (usually by an outside
agency);
- Anonymous attitude survey; and
- Acceptance of employees with HIV by their peers
In addition, there are different levels of analyses which R&H New Germany can undertake. Remember that the easier an indicator is to measure, the more likely it is to be used effectively in the future. However, a complex and detailed analysis requires one to collect more information and therefore is more time consuming. The indicators above highlight the most straightforward and informative indicators to measure.

Definition of an indicator
An indicator is a direct or indirect measure of change. Behaviour change with regard to safer sex practices is the change that is of ultimate interest in an HIV/AIDS and STD programme. Monitoring and evaluating must answer the question: “Has the programme changed behaviour and reduced the prevalence of HIV/AIDS and STDs?”

Other changes that may also be of interest include:
- Prevalence of HIV-infection among employees;
- The appropriateness and effectiveness of the workplace programme; and
- The efficiency or progress of the programme.

Monitoring the impact of HIV/AIDS
The impact of HIV/AIDS can be monitored by maintaining records on sickness or absence and looking at causes of the absence; how often employees take special or compassionate leave; staff turnover by reason for departure (including early retirement); and death by cause.

Monitoring the HIV/AIDS & STD programme
There are some important considerations to bear in mind when monitoring a programme:
- Decide which indicators will be measured. In other words, how will behaviour changes be measured?
- Decide how the indicators will be measured, for example, in-depth interviews with a sample of employees or a questionnaire handed out to all employees. What questions will be included in the questionnaire? Will the R&H New Germany keep records of attendance at work, sick leave, compassionate leave and so on?
- Calculate the costs of the monitoring process steps.
• How often will monitoring take place to give the maximum amount of information with the least disruption and cost?

• Quantitative indicators include the number of people attending the education programme and the number of condoms distributed. (It is important to identify a range of indicators). Qualitative information requires input from all role players as to the effectiveness and efficiency of the programme.

5.6.8.4. Evaluating an HIV/AIDS & STD programme

Evaluations usually measure the impact of an intervention or programme to see if it has an effect or not. Evaluations are usually done after the programme has been in existence for some time. The information gathered through ongoing monitoring can be very useful as part of the evaluation. Evaluations also provide information which can be put together with other sources of information to provide a picture for the whole country. However, it is not easy to determine the exact effect of a programme. All that the organisation can do is measure various changes and try to establish whether they are related to the implementation of the programme. It is very difficult to pinpoint exactly which factors may or may not have had an impact. For example, you cannot assume that people are using more condoms just because more condoms are being distributed in the workplace; you also need to look at whether the incidence of STDs is decreasing.
5.7. OPERATIONAL PLAN AND ACTION ITEMS

R&H New Germany can reinvigorate its HIV/AIDS Awareness and Prevention Programme by following these steps in the program.

The main components of the program are:

- Instruction
- Education
- Protection
- Motivation
- Mobilization
- Evaluation

5.7.1. Convene HIV/AIDS Committee

The HIV/AIDS Committee, within the R&H New Germany organization should be comprised of a representation of the workforce, from management to loaders and drivers, men and women, HIV positive and not. In addition, the Committee should include representatives from its worker’s union. The Committee should begin a dialogue early in the planning to partner with the union as much as possible to ensure programme success. As the meetings are ad-hoc, the Committee must meet frequently during the planning and first year’s implementation of the programme. The Committee is responsible for orchestrating the four employee education sessions to occur within the first six months to a year and the other programme activities. In addition to planning and executing the program representatives of the committee have an important role of being visible at programme seminars and activities.

5.7.2. Appoint a programme coordinator

A programme coordinator from the HIV/AIDS Committee or the on-site healthcare or human resources staff may carry out the programme implementation in conjunction with an HIV/AIDS education expert. Ideally, the programme would be incorporated with existing healthcare or human resources programs considered inherent to good business.
5.7.3. Contract with an HIV/AIDS education organization/experts

Before endeavouring too far along in the programme, the HIV/AIDS Committee should identify and contract with an organization able to assist with the implementation. The role of the consulting agency would be to provide expertise on HIV/AIDS, assist with general planning and implementation, conduct training and communications activities, provide condoms, establish in-house or external links to STI and VCT clinics, and even partner on community outreach activities.

Criteria for consultant selection can include experience in HIV/AIDS in Africa, peer educator training, communications and behaviour change programmes, condom social marketing, STI and VCT programmes, community outreach and research.

5.7.4. Conduct workplace needs and resources assessment

A needs and resource assessment will help to tailor and augment the R&R New Germany planning and approach. The HIV/AIDS Committee, led by the Programme Coordinator, and the consultant should undertake this effort.

The assessment will help to determine basic information such as:

- Number and gender of employees;
- Existing health staff and facilities;
- Existing health, safety and AIDS policies;
- Availability of local agencies (country and city levels) equipped to take referrals for voluntary counselling and testing;
- Arrangements for training activities during the workday;
- Potential to introduce voluntary HIV counselling and testing on the premises; and
- Potential to distribute male and female condoms on the premises.

Assessing the R&H New Germany company as related to HIV/AIDS may identify prevalent beliefs regarding HIV/AIDS, lack of available places for referrals for testing, etc. The programme can then be modified to compensate for missing resources or augmented by special skills or even avoid redundancies or conflicts.
In addition, the resource assessment will help to gather existing videos, brochures, posters and other materials, within the company and from among other organizations. The assessment will help to collect contact information for external agencies and support groups to be included on educational materials. It will help to identify potential condom procurement sources (if not provided by the consultant organization) and quantity of condoms to order, and learn of in-house HIV/AIDS prevention volunteers. It is worth the effort to find out if other businesses in the community have developed HIV/AIDS programs, as they may serve as a resource about successes, problems, and other relevant issues.

5.7.5. Tailor plan to fit company (Responsibilities, Timetable)

The best programs answer the most pressing questions employees have, clarify R&H New Germany’s position on HIV/AIDS, provide insights and guidance from respected and believable AIDS experts and sources, and build a safe and supportive environment for employees. Also, the best programs take place over time, engaging employees in various HIV/AIDS-related issues. This will require periodic employee programmes to address these issues. Though the employee HIV/AIDS education programme can and should be conducted in a variety of ways—ranging from formal presentations by outside experts to distributing brochures—group meetings for employees are the backbone of an effective HIV/AIDS programme. Brochures and other materials can be used to reinforce and supplement the group meetings.

5.7.6. Announce programme to employees

Once the programme has been tailored, the letter from senior management to employees, perhaps included with the payslip, will announce the:

- HIV/AIDS Awareness and Prevention Programme
- Kick-off week events and activities,
- Training schedule
- HIV/AIDS consultant organization participation, and
- Request for nominations of potential peer educators.
5.7.7. Educate managers, supervisors and company healthcare providers

Of all the best practices, perhaps the most critical to success is the recognition by management of the importance of senior management’s involvement in the programme. Managers do not need to be AIDS experts, but they do need to understand the basics about HIV/AIDS before requiring it of others.

Supervisors and managers must understand the facts about HIV and AIDS and the company’s policy to be able to do the following:

- Be prepared to answer employee questions,
- Know where to refer employees for assistance or additional information,
- Be able to reinforce the company’s position on HIV/AIDS support,
- Encourage their employees’ participation in education sessions, and
- Be prepared to supervise and manage their work groups.

The programme must have support from the R&H New Germany management level that all employees, including management, should participate, thus helping to remove the stigma associated with HIV/AIDS that might potentially keep someone from attending.

Management education, including health and human resources staff, will include all of the topics covered under employee education and will additionally include issues related to employment, benefits, discrimination and other HIV/AIDS workplace issues. Healthcare provider briefings will also cover medical, and STI and VCT clinic issues. Management education is an intense version of the employee education sessions with additional management sessions that are held during the first quarter, rather than over the course of the year. It needs to be run by an external organization that is experienced in HIV/AIDS workplace programmes and able to work with management on the difficult issues they are likely to encounter. The sessions could run several different ways, including half days for a week, evenings or weekends, to minimize the impact on regular workplace activities. In all, approximately, an estimated 20 hours in the first year will be necessary to educate management. Throughout the year, management should visit employee sessions to show support, but not stay so as to allow free discussion among and questioning by employees.
5.7.8. Appoint a training coordinator

There are various ways to accomplish training and R&H New Germany will want to implement what best fits the environment. There are many lessons learned regarding training, however, and they are reflected in these guidelines. It is important to appoint someone in charge of the training (who may or may not be the programme coordinator), perhaps someone from human resources, who will work with the HIV/AIDS education consultant. The training programme is described in more detail in the Training Manual.

5.7.9. Select peer educators

Best practices show that peer educators are best selected by their peers. Therefore, as mentioned, employees should receive peer educator nomination forms well in advance of peer educator training. The HIV/AIDS Committee may want to verify the nominees’ ability and desire to present materials without judgment. In addition, the Committee may want to add additional individuals to ensure that all levels and groups within R&H New Germany are represented, from entry-level to management, openly HIV-positive employees, women, and minority culture/ethnic groups. An HIV-positive or AIDS patient who is willing to disclose his or her health status after risk factors have been described should be invited to be trained as a peer educator. One workplace model is based on the principle that the personal experiences of HIV positive individuals can help shape attitudes toward the disease. In addition, it is key that management select a peer educator from among colleagues, as a demonstration to employees of commitment and so that management will have a peer educator.

5.7.10. Train peer educators

After training management and supervisors, consultants should train peer educators. Potential peer educators, some of whom will become peer trainers themselves, will be identified through colleague nomination recommendation forms. Enough peer educators should be trained to ensure every employee receives the full cycle (4 sessions) of training during the first year.
5.7.11. Programme Kick-off

The HIV/AIDS Committee and consultant partner kick-off the programme in a grand way over the period of a week to garner employees' attention. This is a key activity that sets the tone for the whole programme and brings the HIV/AIDS issue to the forefront of employees' thoughts. Suggested activities include contests, awards for programme ideas, recognition of those working in HIV/AIDS prevention, if any, holding a vigil for those lost to HIV/AIDS, engaging guest speakers or celebrity appearances during lunch or tea breaks, hosting families for a weekend day, etc. Posters and brochures should be on display throughout the worksite. Ideally, the frame of mind is to view the programme as a celebration of being empowered to fight HIV/AIDS together.

To lend credibility to the programme, a company official (preferably the Managing Director) should introduce the programme. After an introduction, he may present the R&H New Germany's position statement and ask for questions, clarification, and discussion.

Through the press and the community, make the launch of the programme a high profile, well-publicized event: this shows the determination of R&H New Germany and starts to combat secrecy and denial.

5.7.12. Conduct non-formal and formal education for employees

Non-formal education will occur through brochures, posters at plant sites, and management offices, one-to-one peer educator and health counselling, and community outreach activities. The formal educational components, are to be presented during the first six months to a year of the programme as part of the formal education programme. HIV/AIDS awareness and prevention, is to be presented in a large group setting, introducing the programme and providing basic information on policies, impact, transmission, and prevention. The next session: Condom use and negotiation, will follow shortly thereafter, as condoms are introduced (or reintroduced) in the workplace. The subsequent session: STI diagnosis and treatment and VCT, is presented once diagnosis and treatment education and referral systems are set up either in the workplace or elsewhere. The fourth session: Working with and living with HIV/AIDS and community outreach are presented in year-end larger group sessions. The content of each session is developed by the site HIV/AIDS committee in consultation with external experts.
5.7.13. Train peer educator trainers
Peer educators will need to receive refresher trainings and need to be replaced for various reasons (leave job, death, disinterest, volunteer fatigue, etc.), so there is a need for peer educator trainers. After education sessions are underway, from among the peer educators potential trainers can be identified (observed for their ability, leadership, interest, etc.), who will train new peer educators.

5.7.14. Condom distribution
Most HIV/AIDS education activities include condom promotion as a part of their safe sex message. Unless condoms are widely available in the community and at reasonable cost, condom distribution in the workplace is an important component of a comprehensive prevention programme. Though this may seem to be a sensitive issue at first, experience shows that employees appreciate and support condom distribution in their workplaces. Ideally, male and female condoms would be available.

5.7.15. Provide Voluntary Counselling, Testing and Treatment
Counselling and support services for concerned workers and for HIV-infected workers and their families are usually part of a comprehensive workplace HIV/AIDS programme. Not only are these services beneficial to the physical and mental welfare of employees and their families, but also they increase the probability of sustained behaviour changes that will help prevent the transmission of the AIDS virus. Voluntary, informed, and confidential HIV testing, known as voluntary, counselling and testing (VCT), may be one service offered employees and their partners.
Many employees suffer debilitating illnesses that increase absenteeism and reduce productivity as a result of undiagnosed or untreated STIs. Not only are STIs injurious in their own right, but they also greatly increase the possibility of transmitting the AIDS virus during unprotected sex. Thus, voluntary STI diagnosis and treatment become part of a comprehensive workplace HIV/AIDS prevention programme.

5.7.16. Leverage training & materials to benefit communities-outreach activities
Outreach complements worksite HIV/AIDS education and awareness efforts by reaching employees in their homes and their communities, thereby reinforcing the messages delivered at the worksite.
5.7.17. Conduct ongoing monitoring and evaluation

Reporting on statistics and accomplishments within the company can be motivating for employees. Key to evaluating the programme and demonstrating the need for intervention and behaviour change among employees is a voluntary, anonymous surveillance test of employees. The workers are tested for HIV but are not individually informed of the results. Composite results are shared with the organization and help to provide a baseline for the scale of implementation necessary and medium for evaluating the programme. This type of surveillance testing is done with consent of the trade unions and is 100 percent voluntary for employees. The testing is also supported by the ILO and conducted by many companies. An added feature of the testing is that it can lead to a desire to know individual HIV status and uptake of VCT.

5.7.18 Next Steps

An HIV/AIDS education programme is not a one-time event. In fact, it has been found that short, one-time HIV/AIDS education programs are not effective. Plan beyond a year into the future, and see how it can reinforce the programme. This last part of the planning phase is essential for the success of the programme. Consider using HIV/AIDS as the reason to begin addressing other health concerns and developing a long-range health-promotion programme for the company. Employers have found that health care costs for employees and their dependents can be reduced, and productivity increased, through health-promotion programs.

Plan to provide HIV/AIDS information to employees on an ongoing, regular basis. Send out new brochures periodically. Copy and distribute factual news reports of importance. Encourage employees to volunteer for HIV/AIDS programs in the community through their churches, schools, civic clubs, or other organizations. Provide HIV/AIDS education to all new employees. Decide when the next series of small-group meetings will take place. As the planning phase continues, check to see if anything has been overlooked that might be important to your company:

- Have the particular needs of employees been considered?
- Has the programme been planned to fit the R&H New Germany company culture?
- Is the team in agreement about the plan?
The challenge of planning an HIV/AIDS programme is a great opportunity to demonstrate how well the business functions. A sense of shared pride in having tackled a touchy issue with sensitivity, intelligence, courage, and compassion will help create a receptive environment. Companies state the camaraderie from HIV/AIDS programmes spill over into other workplace relationships and even into productivity.

5.7.19. Follow Up

Keep the momentum going by scheduling two hours every few months to monitor and plan your ongoing programme. If using a team approach, plan a two-hour meeting every few months with the team members: Review what has been done (responses and comments from employees, successes, failures). Review newly developed materials, such as programs, videotapes, or brochures. Plan the next steps of the programme. Follow-up is very important to the success of an HIV/AIDS education programme. The most successful HIV/AIDS programs offer varied approaches over time, reinforcing clear, accurate, consistent messages and periodically provide new information.
5.8. CONCLUSION

Now that the HIV/AIDS education programme is initiated, some employees will want information to take home to their families and friends. Most employees will say that the programme was worthwhile and many will talk about HIV/AIDS more openly, accurately, and responsibly and will be more accepting and supportive of a person with HIV/AIDS. Most people who have developed HIV/AIDS education programs have been surprised by how interesting and useful the process was for them. They also found that it was much easier than they thought it would be. And for many employers, an unexpected benefit has been that employees and their families really appreciate the concern their companies have shown by taking action on HIV/AIDS. Clearly, the AIDS epidemic continues to be a significant health concern and employers cannot avoid the issue. No workforce is immune to the possibility of HIV infection within its ranks. Through an investment of time, energy, and money, however, R&H New Germany can prepare the business and employees to manage the impact of HIV/AIDS at work effectively. By confronting HIV/AIDS up front, directly, and responsibly, R&H New Germany would join thousands of other businesses making an effort to end the AIDS epidemic. Successful training and management of this extremely sensitive, difficult issue helps to set the stage for future programs and policies on all health concerns.
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APPENDIX 1

KNOWLEDGE, ATTITUDES and PERCEPTIONS BASELINE SURVEY

This study is intended to guide the Rohm and Haas New Germany HIV/AIDS Committee with regards to its intervention programmes.

The survey serves as a pre- and post-test baseline study against which to evaluate the impact of the successive intervention programmes at specified periods of time.
KAP SURVEY QUESTIONNAIRE

Section A: Biographical information and sample demographics

Please tick the box which best represents your profile. Unless specified, please only tick per question.

1. Age

<table>
<thead>
<tr>
<th></th>
<th>&lt;20</th>
<th>21-30</th>
<th>31-40</th>
<th>41-50</th>
<th>51-60</th>
<th>60+</th>
</tr>
</thead>
</table>

2. Gender

- male ☐
- female ☐

3. Population Classification

<table>
<thead>
<tr>
<th></th>
<th>White</th>
<th>Black</th>
<th>Coloured</th>
<th>Asian</th>
</tr>
</thead>
</table>

4. Job Grade **SU – these must be job grades as specified by HR department/function**

5. Level of Education

- Some years primary school
- Finish primary school
- Some years high school
- Finish high school
- Incomplete tertiary education
- Finish tertiary education
- Other
6. At which site do you work?

7. Family Structure

<table>
<thead>
<tr>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married one spouse</td>
</tr>
<tr>
<td>Married more than one spouse</td>
</tr>
<tr>
<td>Long-term partner (never married)</td>
</tr>
<tr>
<td>Single (never married)</td>
</tr>
<tr>
<td>Widow/er</td>
</tr>
<tr>
<td>Divorced/separated</td>
</tr>
</tbody>
</table>

8. Living Arrangements

<table>
<thead>
<tr>
<th>Arrangement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Live with my spouse/s</td>
</tr>
<tr>
<td>Live with my partner</td>
</tr>
<tr>
<td>Live apart from my spouse for more than 1 month at a time</td>
</tr>
<tr>
<td>Live apart from my spouse for less than 1 month at a time</td>
</tr>
<tr>
<td>Live apart from my partner for more than 1 month at a time</td>
</tr>
<tr>
<td>Live apart from my partner for less than 1 month at a time</td>
</tr>
<tr>
<td>Single and live alone</td>
</tr>
<tr>
<td>Single and live within a household</td>
</tr>
</tbody>
</table>

9. Do you live in a rural or urban area?

<table>
<thead>
<tr>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
</tr>
<tr>
<td>Rural</td>
</tr>
</tbody>
</table>
10. Do you have access to:

<table>
<thead>
<tr>
<th>Lights</th>
<th>Water</th>
<th>Sanitation</th>
</tr>
</thead>
</table>

11. How many people do you share a room with?

<table>
<thead>
<tr>
<th>None</th>
<th>1 other person</th>
<th>2 other person</th>
<th>3 other person</th>
<th>4+ other person</th>
</tr>
</thead>
</table>

Section B: Sexual History

12. With whom did you have sex with in the last 3 months?

<table>
<thead>
<tr>
<th>Spouse</th>
<th>Long term partner</th>
<th>Sex Worker</th>
<th>Casual Partner</th>
<th>Other</th>
</tr>
</thead>
</table>

13. How often did you have sex over the last three months?

<table>
<thead>
<tr>
<th>1-5 times</th>
<th>6-10 times</th>
<th>11-15 times</th>
<th>16+ times</th>
<th>No answer</th>
</tr>
</thead>
</table>
Section C: Condom Usage and general Sexual Practices

1. Condom Usage

14. Have you ever used a condom during a sexual act?

<table>
<thead>
<tr>
<th>Yes</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td></td>
</tr>
<tr>
<td>No answer</td>
<td></td>
</tr>
</tbody>
</table>

15. Have you ever used a femidon (female condom) during a sexual act?

<table>
<thead>
<tr>
<th>Yes</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td></td>
</tr>
<tr>
<td>No answer</td>
<td></td>
</tr>
</tbody>
</table>

16. How often have you used a condom over the last three months?

<table>
<thead>
<tr>
<th>Every time</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Almost every time</td>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td></td>
</tr>
</tbody>
</table>

17. Whose decision was it use a condom?

<table>
<thead>
<tr>
<th>Own Decision</th>
<th></th>
</tr>
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<tbody>
<tr>
<td>Sexual Partner</td>
<td></td>
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<tr>
<td>Joint Decision</td>
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</tbody>
</table>

18. Why did you wear a condom?
2. Knowledge pertaining to condoms

19. Where can you get condoms from?
1. 
2. 
3. 
4. 

20. Condoms break which make them unreliable?

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<tr>
<td>Definitely</td>
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<td>Probably</td>
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<tr>
<td>Don’t know</td>
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<tr>
<td>Probably not</td>
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<td>Definitely not</td>
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</tbody>
</table>

21. Regardless of whether condoms break, I will still use them?

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<td>Definitely</td>
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<td>Probably</td>
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<tr>
<td>Don’t know</td>
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<tr>
<td>Probably not</td>
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<td>Definitely not</td>
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</table>

22. Using condoms is the best way to prevent STDs

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<td>Definitely</td>
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<tr>
<td>Probably</td>
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<tr>
<td>Don’t know</td>
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<tr>
<td>Probably not</td>
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<td>Definitely not</td>
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</table>
23. Condoms are too small

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<td>Probably not</td>
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<td>Definitely not</td>
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</table>

24. People who carry condoms have sex with a lot of people

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<td>Don’t know</td>
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<td>Probably not</td>
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<tr>
<td>Definitely not</td>
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25. Condoms are easy to get at work?

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<tr>
<td>Probably</td>
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<tr>
<td>Don’t know</td>
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<tr>
<td>Probably not</td>
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<tr>
<td>Definitely not</td>
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</tbody>
</table>

26. Condoms can perish, get damaged and should be used before the expiry date

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<tr>
<td>Probably not</td>
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<tr>
<td>Definitely not</td>
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</tr>
</tbody>
</table>
27. Before I have sex I often:
   a. Consume alcohol  Yes □  No □
   b. Take drugs  Yes □  No □
   c. Herbs  Yes □  No □

Section D: Knowledge of HIV/AIDS and STDs

28. You can get HIV/AIDS from a person who coughs and sneezes?

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
<th>Don’t Know</th>
</tr>
</thead>
</table>

29. You can get a STD if you have sex just once without a condom?

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
<th>Don’t Know</th>
</tr>
</thead>
</table>

30. Most people with HIV/AIDS show signs right away of being sick?

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
<th>Don’t Know</th>
</tr>
</thead>
</table>

31. A person dying of HIV/AIDS does not look the same as a newly-infected person?

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
<th>Don’t Know</th>
</tr>
</thead>
</table>

32. What happens when a person contracts AIDS?

_____________________________________________________

_____________________________________________________

_____________________________________________________
33. Only a person who looks sick can spread AIDS?

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<tbody>
<tr>
<td>True</td>
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</tr>
<tr>
<td>False</td>
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</tr>
<tr>
<td>Don’t Know</td>
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</tbody>
</table>

34. You can get AIDS from a mosquito bite?

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<tbody>
<tr>
<td>True</td>
<td></td>
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<tr>
<td>False</td>
<td></td>
</tr>
<tr>
<td>Don’t Know</td>
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</tbody>
</table>

35. Only people who have sex with gay people get AIDS

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<tbody>
<tr>
<td>True</td>
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<tr>
<td>False</td>
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</tr>
<tr>
<td>Don’t Know</td>
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36. Birth control pills protect women against AIDS

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</thead>
<tbody>
<tr>
<td>True</td>
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<tr>
<td>False</td>
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<tr>
<td>Don’t Know</td>
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37. Many people discriminate against people with AIDS

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<tbody>
<tr>
<td>True</td>
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<tr>
<td>False</td>
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<tr>
<td>Don’t Know</td>
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38. People don’t discuss AIDS because they fear rejection

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<tbody>
<tr>
<td>True</td>
<td></td>
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<tr>
<td>False</td>
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<tr>
<td>Don’t Know</td>
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</table>
39. Condoms can reduce the risk of getting an STD

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<tbody>
<tr>
<td>True</td>
<td></td>
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<tr>
<td>False</td>
<td></td>
</tr>
<tr>
<td>Don’t Know</td>
<td></td>
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</tbody>
</table>

40. TB causes AIDS

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<tbody>
<tr>
<td>True</td>
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<tr>
<td>False</td>
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</tr>
<tr>
<td>Don’t Know</td>
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</tbody>
</table>

41. Traditional healers can cure AIDS

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<tbody>
<tr>
<td>True</td>
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<tr>
<td>False</td>
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<tr>
<td>Don’t Know</td>
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</tbody>
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42. Sex with a virgin cures AIDS

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<tbody>
<tr>
<td>True</td>
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<tr>
<td>False</td>
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<tr>
<td>Don’t Know</td>
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</tbody>
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43. AIDS is a punishment because people are having sex with lots of people

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<tbody>
<tr>
<td>True</td>
<td></td>
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<tr>
<td>False</td>
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</tr>
<tr>
<td>Don’t Know</td>
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</tbody>
</table>

44. Pregnant woman with AIDS can pass it onto their unborn children

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<tbody>
<tr>
<td>True</td>
<td></td>
</tr>
<tr>
<td>False</td>
<td></td>
</tr>
<tr>
<td>Don’t Know</td>
<td></td>
</tr>
</tbody>
</table>
45. Rohm and Haas offers voluntary HIV/AIDS testing and counselling during work hours

If they don’t – reject question

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
<th>Don’t Know</th>
</tr>
</thead>
</table>

46. Rohm and Haas provides treatment for STDs as work  

again, if not, then discard – I need  
to know what they do do?

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
<th>Don’t Know</th>
</tr>
</thead>
</table>

47. Rohm and Haas provides HIV/AIDS support services at work? As above

<table>
<thead>
<tr>
<th>True</th>
<th>False</th>
<th>Don’t Know</th>
</tr>
</thead>
</table>

Section E: HIV/AIDS related information and health seeking behaviour

48. Where do you get information on AIDS (more than one box may be ticked)

<table>
<thead>
<tr>
<th>Newspaper/magazines</th>
<th>TV</th>
<th>Health Clinic</th>
<th>Local doctor</th>
<th>Workplace clinic</th>
<th>Radio</th>
<th>Posters</th>
<th>Friends</th>
<th>Family</th>
<th>Colleagues</th>
</tr>
</thead>
</table>
49. How easy is it to get information on AIDS?

- Very Easy
- Quite easy
- Quite Difficult
- Impossible

50. How easy is it to talk about AIDS?

- Very Easy
- Quite easy
- Quite Difficult
- Impossible

51. With who, and how often, do you talk about AIDS? (more than one box may be ticked)

<table>
<thead>
<tr>
<th>I discuss AIDS with:</th>
<th>At least once a day</th>
<th>At least once a week</th>
<th>At least once a month</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends</td>
<td></td>
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<td></td>
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<tr>
<td>Family</td>
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<tr>
<td>Fellow workers</td>
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<tr>
<td>Employees at the health clinic</td>
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<tr>
<td>Medical employees</td>
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<tr>
<td>Employees at and AIDS NGO</td>
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<tr>
<td>My medical doctor</td>
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<tr>
<td>Other</td>
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</tbody>
</table>

52. What were the main discussion topics concerning AIDS?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
53. Where would you most likely seek medical care for AIDS, STDs and/or TB?

Medical Doctor
Hospital
Community Clinic
Health Care at work

54. Where would you prefer to seek medical care for AIDS, STDs and/or TB?

Medical Doctor
Hospital
Community Clinic
Health Care at work

55. Why would you seek medical care from the company clinic (Is this the right phrase)?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

56. Why would you not seek medical care from the company clinic (Is this the right phrase)?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

Section F: STD related information and treatment

57. Where do you get information on STDs (more than one box may be ticked)

Newspaper/magazines
TV
Health Clinic
Local doctor
Workplace clinic
Radio
58. How easy is it to get information on STDs?

<table>
<thead>
<tr>
<th></th>
<th>Very Easy</th>
<th>Quite easy</th>
<th>Quite Difficult</th>
<th>Impossible</th>
</tr>
</thead>
</table>

59. How easy is it to talk about STDs?

<table>
<thead>
<tr>
<th></th>
<th>Very Easy</th>
<th>Quite easy</th>
<th>Quite Difficult</th>
<th>Impossible</th>
</tr>
</thead>
</table>

60. With who, and how often, do you talk about AIDS? (more than one box may be ticked)

<table>
<thead>
<tr>
<th>I discuss AIDS with:</th>
<th>At least once a day</th>
<th>At least once a week</th>
<th>At least once a month</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Family</td>
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<tr>
<td>Fellow workers</td>
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<tr>
<td>Employees at the health clinic</td>
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<tr>
<td>Medical employees</td>
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<tr>
<td>Employees at and AIDS NGO</td>
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<td></td>
</tr>
<tr>
<td>My medical doctor</td>
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<tr>
<td>Other</td>
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</tbody>
</table>
61. Have you ever required treatment for a STD?

<table>
<thead>
<tr>
<th>Yes</th>
<th></th>
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<tbody>
<tr>
<td>No</td>
<td></td>
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</tbody>
</table>

62. Where did you seek medical care for the STD?

<table>
<thead>
<tr>
<th>Medical Doctor</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital</td>
<td></td>
</tr>
<tr>
<td>Community Clinic</td>
<td></td>
</tr>
<tr>
<td>Health Care at work</td>
<td></td>
</tr>
</tbody>
</table>

**Section G: TB related information and treatment**

63. Where do you get information on TB (more than one box may be ticked)

<table>
<thead>
<tr>
<th>Newspaper/magazines</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>TV</td>
<td></td>
</tr>
<tr>
<td>Health Clinic</td>
<td></td>
</tr>
<tr>
<td>Local doctor</td>
<td></td>
</tr>
<tr>
<td>Workplace clinic</td>
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<tr>
<td>Radio</td>
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<td>Posters</td>
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<tr>
<td>Friends</td>
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<tr>
<td>Family</td>
<td></td>
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<tr>
<td>Colleagues</td>
<td></td>
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</tbody>
</table>

64. How easy is it to get information on TB?

<table>
<thead>
<tr>
<th>Very Easy</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Quite easy</td>
<td></td>
</tr>
<tr>
<td>Quite Difficult</td>
<td></td>
</tr>
<tr>
<td>Impossible</td>
<td></td>
</tr>
</tbody>
</table>
65. How easy is it to talk about TB?

<table>
<thead>
<tr>
<th>Easy Options</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Easy</td>
<td></td>
</tr>
<tr>
<td>Quite easy</td>
<td></td>
</tr>
<tr>
<td>Quite Difficult</td>
<td></td>
</tr>
<tr>
<td>Impossible</td>
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</tr>
</tbody>
</table>

66. With who, and how often, do you talk about TB? (more than one box may be ticked)

<table>
<thead>
<tr>
<th>Discussion Topic</th>
<th>At least once a day</th>
<th>At least once a week</th>
<th>At least once a month</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friends</td>
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<tr>
<td>Family</td>
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<tr>
<td>My medical doctor</td>
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<tr>
<td>Other</td>
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</tbody>
</table>

67. Have you ever required treatment for a TB?

<table>
<thead>
<tr>
<th>Answer</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

68. Where did you seek medical care for TB?

<table>
<thead>
<tr>
<th>Care Location</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Doctor</td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td></td>
</tr>
<tr>
<td>Community Clinic</td>
<td></td>
</tr>
<tr>
<td>Health Care at work</td>
<td></td>
</tr>
</tbody>
</table>


## Section II: Perceptions of Risk

### 69. Efficacy frequencies

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using condoms is effective in preventing the AIDS virus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abstaining from sex prevents getting the AIDS virus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If I use condoms I am less likely to get the AIDS virus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 70. Perceived self-efficacy frequencies

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am able to abstain from sex to prevent getting the AIDS virus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can maintain a faithful relationship to prevent getting the AIDS virus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can easily be faithful to my partner to avoid getting the AIDS virus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 71. Perceived severity frequencies

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I believe getting an STD is extremely harmful</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I believe getting the AIDS virus has serious consequences</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I believe that getting the AIDS virus is a disgrace</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 72. Perceived susceptibility

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is likely that I will get AIDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am at risk of getting AIDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is possible that I will get AIDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
73. Perception of the inevitability of AIDS

<table>
<thead>
<tr>
<th>Statement</th>
<th>Probably</th>
<th>Don’t Know</th>
<th>Probably not</th>
<th>Definitely not</th>
</tr>
</thead>
<tbody>
<tr>
<td>The chances are that I will eventually get AIDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

74. Perception of having AIDS

<table>
<thead>
<tr>
<th>Statement</th>
<th>Probably</th>
<th>Don’t Know</th>
<th>Probably not</th>
<th>Definitely not</th>
</tr>
</thead>
<tbody>
<tr>
<td>The chances are that I already have AIDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Thank you for taking the time to complete this questionnaire