CHAPTER 2

THEORETICAL PERSPECTIVE AND IMPACT OF HIV/AIDS IN SOUTH AFRICA

2.1 INTRODUCTION

HIV/AIDS is the greatest challenge facing South Africa today. There is evidence to suggest, that political leadership is now becoming aware of the enormity of the problem. Like president Mbeki wrote in a letter dated 3 April 2000 to president Clinton: "In 1998, our government decided radically to step up its own efforts to combat AIDS, this fight having, up to this point, been left largely to our Ministry and the Department of Health" (Whiteside & Sunter, 2000:134). Predictions indicate, that there are several South Africans who know, of or who are living with someone who is HIV-positive. In many townships parties and weddings have given way to people attending funerals on a grand scale. The AIDS challenge for South Africa has only just begun.

Businesses across the South African economic spectrum, can no longer see the HIV/AIDS epidemic as only a government or health care problem. Undoubtedly HIV/AIDS is rapidly becoming a workplace issue. AIDS have become everyone's problem, regardless of where he/she lives. At the recent 13th International AIDS Conference held in Durban in July 2000, the theme was "Breaking the Silence". It was not only an acknowledgement of many silences which surrounded and imprisoned HIV/AIDS, but also an invitation to local organisations and the global community to have open debates and discussions on new facts and to share past and present experiences on the epidemic (Adler, 2000:62).

The impact of HIV/AIDS on the South African workplace, has compelled organisations to start thinking of strategic ways to deal with the disease. The business sector, together with government and other important role players such as trade unions and health care, needs to unite in an effort to effectively manage and control

the impact that the disease will have on the active economic workforce of the country. It will become increasingly important for any Human Resources or employees assistant managers to put HIV/AIDS at the top of their personal agenda (Meeson & Van Meelis, 2000:44).

A culture of openness and acceptance regarding HIV/AIDS in an environment with silence and denial still lurking in the background, is one of the biggest challenges in managing the epidemic successfully in any environment. Collective response of the South African business sector is needed in order to change the situation around. However, organisations in general have responded passively up till now and in some cases not at all, in dealing with the HIV/AIDS epidemic. These attitudes and perceptions need to be changed before business in general can make any contributions towards fighting the disease. Like Mr. Vosloo, an HIV-positive employee rightfully remarks: "There is a real contradiction when management supports policy verbally, but not in practice" (Meeson & Van Meelis, 2000:47).

The HIV/AIDS epidemic cannot be contained unless the South African business sector in particular, together with other important role players make an exceptional effort and focus in addressing the problem. The South African milieu consists of is government, business, labour, AIDS service organisations and society in general. The impact of HIV/AIDS will force organisations and government to take strategic decisions and to examine the direct and indirect labour costs on staff and other related aspects (Gresak, 2000:13).

This chapter will focus on and investigate the following important aspects.

- A background study on HIV/AIDS in South Africa.
- The global trend on HIV/AIDS.
- The socio-economic impact of the disease on South Africa.

2.2 BACKGROUND ON HIV/AIDS IN SOUTH AFRICA

In 1982 the first cases of HIV were identified in South Africa. For the first eight years, the epidemic was located primarily among the white homosexual population of South Africa. However, as the number of infections rose, so the disease began to spread to other groups within the general population. In July 1991, the numbers of heterosexually transmitted cases were equal to the number of homosexual cases. Since then, the homosexual epidemic was completely overshadowed by the heterosexual epidemic within the general South African population (Whiteside & Sunter, 2000:47).

From being first regarded as a "minority group" disease, HIV/AIDS has gradually been shown to be essentially a heterosexually transmitted infection. In some industrialised countries, such as South Africa, AIDS is regarded as a disease restricted only to under-developed countries in the world. Such complacency is one more reason why HIV/AIDS will persist for a very long time to come, for the history of the disease has shown, that when complacency occurs and vigilance weakens, infection agents take full advantage of the situation (Anon, 2000:13).

2.2.1 Epidemiology and data collection

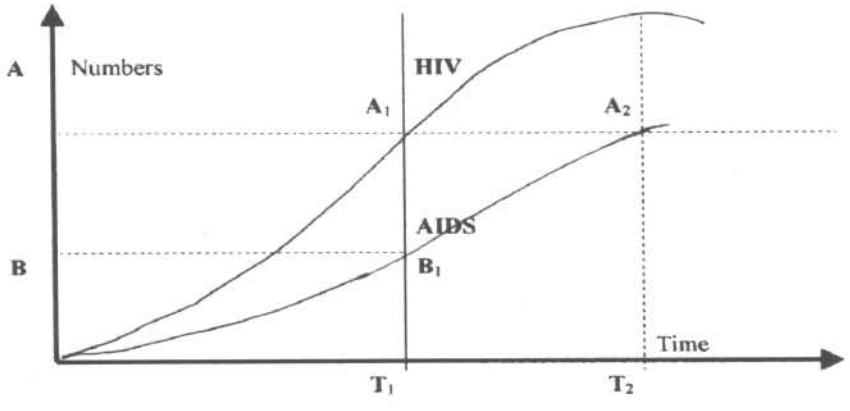
Before a full assessment of the HIV/AIDS situation in South Africa can be made, it is important to understand the basic epidemiology of both the HIV/AIDS epidemics. Epidemiology refers to the study of the distribution and the determinants of states of health in populations, its objective being the prevention and control of ill health. Epidemics usually follow an "S" curve, as shown in Figure 2.1. At first, the epidemic starts slowly and gradually, but when a certain point is reached, a critical mass of infected people is reached and the growth of new infections thereafter accelerates. The epidemic then spreads through the general population until many of those people who are susceptible to the infection, are infected. In the final phase of an epidemic, where the "S" curve flattens off at the top, people are either getting better or deaths starts to overtake the number of new cases, so that the total number alive and infected

passes its peak and begins to decline. For most diseases, the curve will decline rapidly, but for the HIV/Aids epidemic it is totally different.

What sets HIV/Aids apart from other epidemics is that there are two curves present, as indicated in Figure 2.1. These two curves represent the HIV/Aids epidemics separately in the general population. The HIV epidemic precedes the Aids epidemic by about six to eight years, reflecting the incubation period between first being infected and the full onset of the illness. This is why HIV is such a lethal epidemic compared to other forms of epidemics. HIV is a silent killer. The epidemic is a silent and fast spreading disease, creeping it's way through the population and it's only later when the HIV pool has risen to a considerable level that the true impact of the epidemic is felt in terms of full blown Aids deaths.

Figure 2.1 shows this point clearly. The vertical axis represents numbers and the horizontal axis time. At T1, when the level of HIV is at A1, the number of Aids cases will be very much lower at B1. The Aids cases will only reach A2 at T2. A considerable amount of time will have elapsed and the HIV will have risen higher, though it seems to be levelling off. Another important point that can be drawn from the chart is that, while prevention efforts may be aimed at lowering the number of infections without affordable and effective treatment, Aids will still be increasing long after the HIV epidemic has turned (Whiteside & Sunter, 2000:27).

Figure 2.1: The two epidemic curves



Source: Whiteside & Sunter, 2000:27

Epidemiological data are usually drawn from official sources, such as statistics and cases based on the incidence and prevalence rates.

These rates don't always measure the impact of prevention efforts accurately, with the consequence that statistics are not always representative of the general population and mathematical models that generate projections, produce different results, depending on the limitations of data addressed. Another important fact, is that AIDS case data can also be misinterpreted (Allen, Simelela & Makubalo, 2000:10).

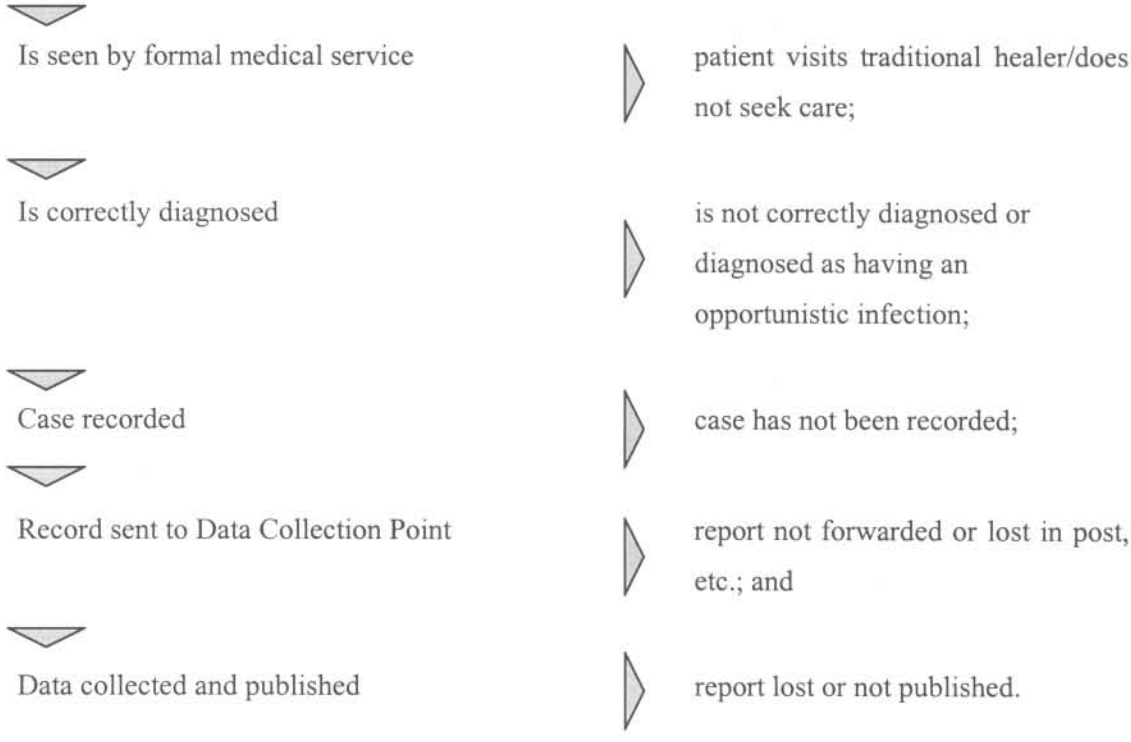
There are a number of reasons for this.

- Reporting of the actual case may be very slow. It takes time for data to flow into a central point to be collected.
- Data may be inaccurate, because of the unwillingness of medical staff to report cases. This may be due to the stigma associated with AIDS or medical aid societies and insurance companies paying out more for other diseases.
- AIDS may not be the condition diagnosed. Instead, the patient may be recorded as having TB or meningitis.
- Doctors may feel that it is pointless to report cases, as there are always problems with the collection of data.

In many developing countries such as South Africa, one of the major stumbling blocks to cases being reported, is that most people are not seen by formal medical practitioners but that they prefer to visit traditional healers. The process through which a person with AIDS has to go, in order for him/her to be officially recorded as having the disease, can be illustrated by the following figure, as well as the wrong way in going about reporting the disease.

Figure 2.2 to follows on p. 26.

Figure 2.2: The problem of AIDS case reporting



Source: Whiteside & Sunter, 2000:31

The question now arises: What can be done to ensure that the value of these AIDS case data will be correct and representative of the general population? HIV data in South Africa are drawn from surveys of specific groups. In the early years of the epidemic, these surveys included blood donors, sexually transmitted disease clinic attendees, people with TB and women attending State antenatal clinics. Surveys were also conducted among sex workers and truck drivers. At present the only fairly reliable, consistent data come from women attending State antenatal clinics countrywide (Allen, Simelela & Makubalo, 2000:10).

In trying to establish the trend of the disease, as well as the impact thereof, scientists needed a sample, which would be broadly representative of the general population. They required a sample that could be drawn on at regular intervals, usually every year or two. Antenatal clinic attendees provided a good sample, because they were

sexually active and were adults. Another advantage is, that blood samples are routinely taken from these women for tests. In South Africa the annual survey is carried out in October/November each year and each sample is labelled, with the location and age of the woman, therefor, a small amount of other information, such as marital status or income, can also be obtained without compromising confidentiality.

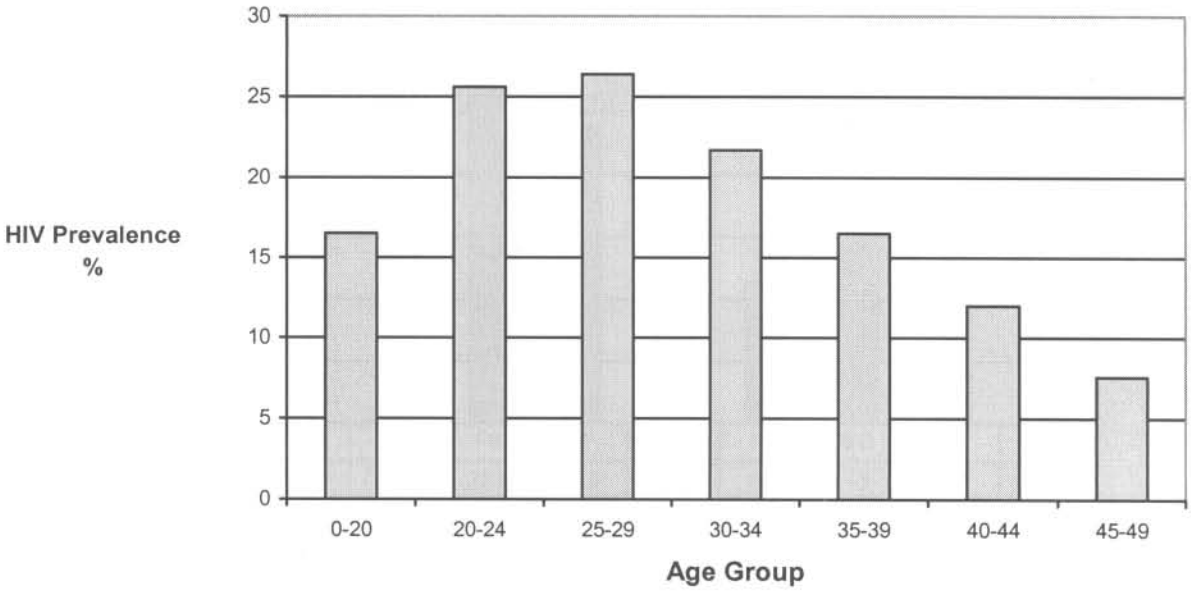
Once the raw data have been collected, it is taken into more representative numbers, using various computer and mathematical models. Recent population-based studies, have shown that antenatal clinic data do provide a relative good estimate of HIV prevalence among adults aged 15 to 59. However, when the epidemic is model, the data are then manipulated in order to provide estimates of prevalence for all adults and for the population at large. One advantage of antenatal clinics, is that the HIV/AIDS data provided, are appropriate when the epidemic is largely heterosexually driven, as in the case of Sub-Saharan Africa. Because most samples are very limited, there is a level of uncertainty about HIV/AIDS figures. One of the priorities, is to collect better and more reliable data in the field (Whiteside & Sunter, 2000:34).

It is clear that South Africa needs a far better method of assessing the HIV/AIDS status of the general population. Sampling the general population on a direct basis, could be effective. This will mean, that people have to give blood for survey purposes and such surveys would also be expensive.

The following figures show data collected, and indicate the HIV prevalence rate in women attending State antenatal clinics in South Africa, by province and age group, as expressed in percentages.

Figure 2.3 to follows on p.28.

Figure 2.3: **HIV-prevalence rate in women attending State antenatal clinics, by age group in South Africa**

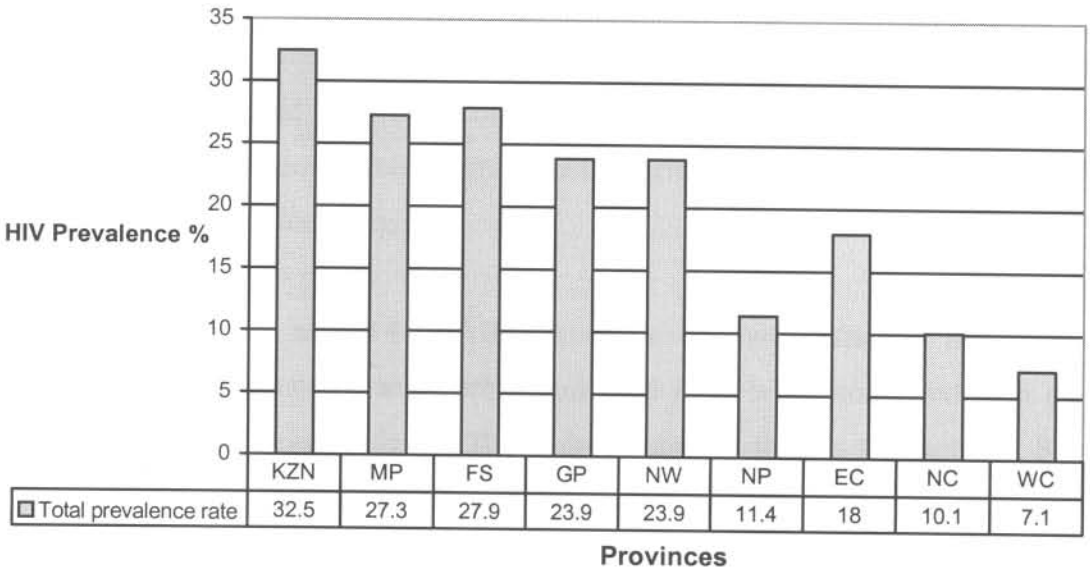


Source: Allen, Simelela & Makubalo, 1999:10

Figure 2.3 presents HIV prevalence data by age group for women attending State antenatal clinics. Data indicate, that the highest HIV zero prevalence is in women aged 20 to 30 years, although the average prevalence rates are high in all age groups. It is also further estimated, that more than half of the new HIV-infections in women occur in the age less than 20 year.

Figure 2.4 represents HIV prevalence data by province for women attending State antenatal clinics at the end of 1999 in South Africa. These data also indicate, that there are geographical disparities in the overall distribution of the HIV/AIDS epidemic in South Africa. These geographical differences have persisted since the introduction of the surveys.

Figure 2.4: **HIV-Prevalence in pregnant women attending State antenatal clinics, by province in South Africa**



[KZN – KwaZulu Natal; MP – Mpumalanga; FS – Free State; GP – Gauteng; NW – North West; NP – Northern Province; EC – Eastern Cape; NC – Northern Cape; WC – Western Cape]

Source: Allen, Simelela & Makubalo, 1990:10

The conclusions that can be reached from assessing the above data, are the following.

- The HIV epidemic in South Africa is one of the fastest growing epidemics in the world.
- Young women aged 20 to 30 years, show the highest prevalence rates.
- The HIV prevalence varies by province, from 7,1 per cent to 32,5 per cent.
- The HIV epidemic is affecting young blacks and economically poor sub-populations in South Africa more severely than any other groups in the country.

2.2.2 Analysing the past, present and future impact of HIV/AIDS in South Africa

By 1991, the total HIV/AIDS cases in South Africa's general population, began to mirror that of all Southern African countries infected by the HIV/AIDS virus. This was further confirmed with data collected by the Department of National Health (DOH) and Population Development. South Africa was indeed on its way to be rapidly infected with the virus.

An important aspect of the HIV/AIDS epidemic in South Africa is that there is absolutely no difference between urban and rural areas when compared with other countries North of South Africa. The main reason for this, is the fact that South Africa's population is fairly mobile and that the country has a good infrastructure as compared to other African countries on the Continent (Whiteside & Sunter, 2000:53).

In September 1998, the Department of Health organised a meeting of experts to develop a consensus on the future spread and impact of HIV/AIDS in South Africa (refer Chapter 5). This included epidemiologists, actuaries, economists, health specialists and others with an interest in dealing with the issue. The meeting resulted in an agreement, to set projections concerning the spreading of the disease over present and future periods of time in South Africa and was based on a spectrum of scientific models. It is important to note, that these models are only tools to guide or estimate decisions regarding HIV/AIDS data. The definition regarding models, is that it is only a representation of an aspect of reality and cannot replace the complexity that a real situation presents (Allen, Simelela & Makubalo, 2000:10).

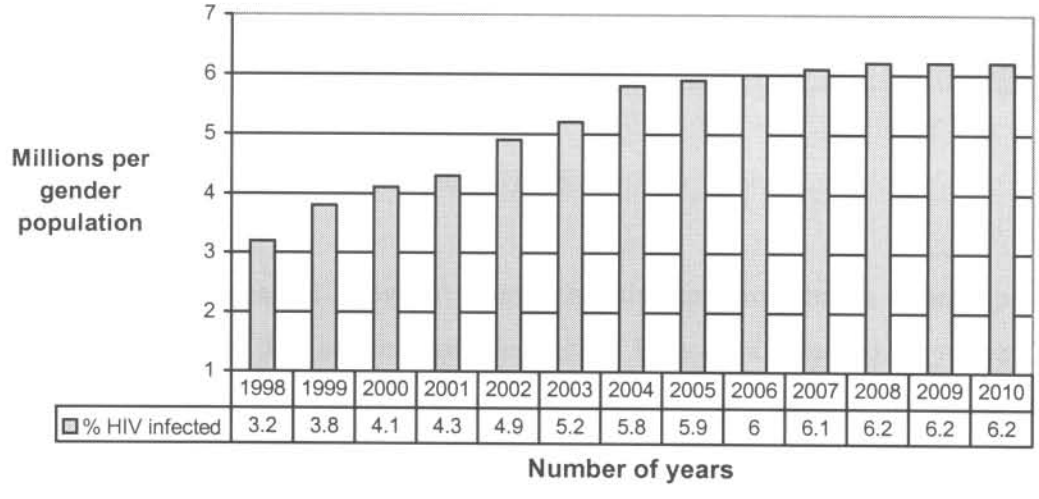
These projection models can be used for determining information such as:

- projecting the HIV prevalence rates and numbers,
- projecting future numbers of AIDS cases,
- examining the demographic impact of AIDS and addressing questions relating to the impact of HIV/AIDS on population growth rates, and

- the formulation of different intervention strategies concerning their strengths and weaknesses.

Using these more or less reliable statistical techniques, epidemiologists and other parties interested, are confident that they can use State antenatal clinic data and estimated HIV prevalence levels for each of the important groups in the South African general population aged 15 to 59. These groups include adult females, adult males and children. Based on the previous information and methods mentioned in this chapter, the current calculations of the total number of HIV infected South Africans in the past, present and future can be calculated and illustrated by means of the following figure.

Figure 2.5: Total number of HIV infected South Africans aged 15 to 59 (past, present and future estimates)



Source: World Health Organisation, 1998:168

It is also important to study the impact effects other countries in the region. UN-AIDS made estimates aimed at adult prevalence rates, number of people infected by the HIV/AIDS virus and the number of orphans resulting from AIDS mortalities. A comparison of South Africa's neighbours on the information supplied above, is shown

in the table below. This table reflects only estimates based on the information obtained from the UN-AIDS Report of 1998.

Table 2.1: UN-AIDS estimates for South and Southern Africa 1998 estimates

Country	Adult prevalence rate (per cent)	Number of adults & children living with HIV/AIDS	Estimated number of orphans
Botswana	25,1	190 000	25 000
Lesotho	8,4	85 000	8 500
Mozambique	14,2	1 200 000	150 000
Namibia	19,9	150 000	7 300
South Africa	12,9	2 900 000	180 000
Swaziland	18,5	84 000	7 200
Zambia	19,1	770 000	360 000
Zimbabwe	25,8	1 500 000	360 000
Total/Average	**Av. 12**	**10 805 000**	**2 214 000**

Source: World Health Organisation, 1998:48

Interpreting the information above, it seems that the epidemic has a natural peak, should one consider the information regarding Botswana, the country that is experiencing one of the worst HIV epidemics in the world. In order to assess the impact on social and economic growth, an idea of the future course of the epidemic needs to be predicted. Using various mathematical models, with various computer programmes to make prognoses this could be done and projections made possible, as already mentioned previously (Adler, 2000:67).

South Africa as a nation is highly susceptible to the spread of the HIV/AIDS epidemic and also highly vulnerable to the impact the epidemic will have on the country and its resources. There are also particular segments in general society, which are particularly susceptible and vulnerable to the epidemic.

Mann and Tarantola (1996:25) suggest that individuals who experience not only individual vulnerability, but also programmatic vulnerability to the extent that programme-based responses can either increase or decrease an individual's vulnerability to the risk of infection. This is a very sobering thought. However, societal influences can also be important factors influencing an individual's behaviour (Adler, 2000:69).

In South Africa, the highest rates of infection are amongst people between 20 and 44 years of age - the group that is economically economic active. Because of this, HIV/AIDS has the potential to create havoc on social, economic and above all, human development in the country. Despite a late start, HIV has taken off in South Africa, with devastating consequences for the country. As a direct result, South Africa now faces the daunting task to combat and prevent a major HIV/AIDS crisis. In terms of the actual impact that the epidemic will have, there is still a great deal of uncertainty. As the epidemic will continue to spread, the sheer number of illnesses, deaths and the number of orphans, will surely be greater in South Africa than in the other countries in the region.

The reason for this, is that South Africa has a highly and more advanced economy than have other Southern African economies within the region. The South African economy is, therefore, dependent on skilled labour. Losses of skilled and also professional staff, can seriously hamper economic growth in future. The illness also has the potential to result in major social and political unstability, which will have far-reaching fiscal and monetary implications for South Africa. In order to understand and plan for the HIV/AIDS impact on South Africa, it is absolutely imperative that the South African general population understand what effect the HIV/AIDS epidemics will have on aspects related to income, education, skills, employment and location. Many people will be infected; they will fall ill and they will die as a result of the epidemic. The end-result will mean, that many children will be orphans and left behind uncared for (Kinghorn, 2000:23).

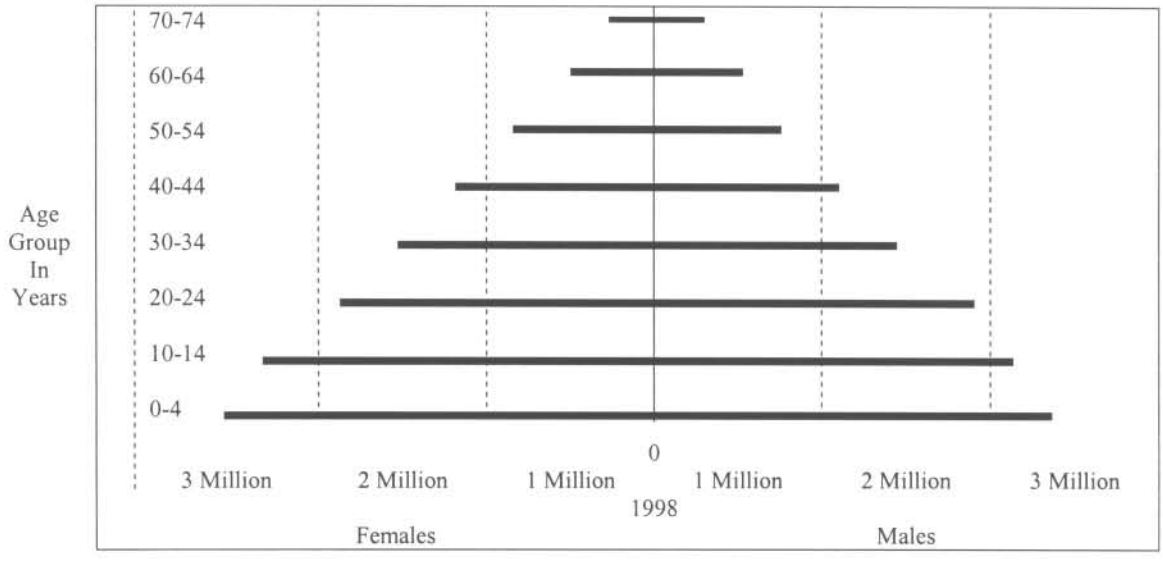
In 2000 it was found that South Africa was already well ahead of schedule concerning the current HIV-infection rate. It was estimated that South Africa was expected to reach 4,2 million infections only by the end of 2002. However, the latest estimates

for the year 2000 is already on 4,2 million HIV-positive adults and children. This figure poses a real challenge for South Africa in dealing with the spread and infection rate of its people. It's also generally believed, that the HIV/AIDS epidemic is likely to lead to a negative population growth and decrease in population figures. However, there are some expectations that this might be a combination of very high cases of HIV prevalence and the rapidly declining of fertility, such as is in the case of KwaZulu Natal (refer Figure 2.4).

In 1998 the US Bureau of Census projected, that the annual population growth rate for South Africa (including HIV/AIDS) would be approximately 1,4 per cent and without HIV/AIDS, 1,9 per cent of the general population. For 2010 the respective figures are estimated at 0,4 per cent with HIV/AIDS and 1,4 per cent without HIV/AIDS. The reality is, however, that the overall population growth rate will become sharply negative with an estimated slower growth rate in the general population. In South Africa the estimates are, that without HIV/AIDS, the population would have risen to 51,3 million by 2010 but with the impact of HIV/AIDS it is expected to reach only 47 million by 2010 (Whiteside & Sunter, 2000:71).

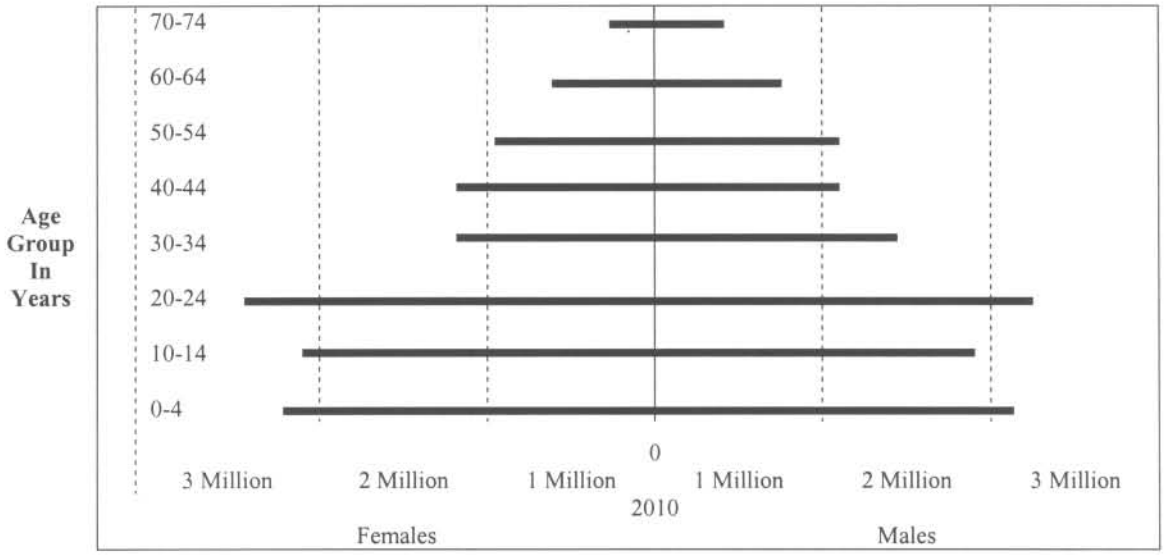
The following figures reveal just how much AIDS will change the shape of the general South African population from 1998 to 2010.

Figure 2.6: Estimated population structure for South Africa in 1998



Source: Kinghorn, 2000:23

Figure 2.7: Estimated population structure for South Africa in 2010



Source: Kinghorn, 2000:23

In order for the HIV/AIDS epidemic to be considered in the country's population policy, there are two pre-conceptions.

- Firstly, those in charge with developing a populating policy, must be aware of the importance of the epidemic and be able to incorporate the implications into their policy and projections.
- Secondly, there must be enough data available on HIV-prevalence rates in order for the epidemic to be scientifically modelled and predicted.

The reasons why scientists and other people are concerned about the spreading of the diseases, are that it causes people to fall ill and die. An increase in illness and death in the population will inevitably have economic and social implications and consequences for the country. What is not yet clear at present is the degree of the impact HIV/AIDS will have on South Africa, especially at macro level (Thomas & Khupiso, 2000:1).

The following table provides a hierarchy of organisations and the various environments that will be affected in both direct and or indirect manner, because of the impact of the HIV/AIDS epidemic.

Table 2.2: Hierarchy of organisations affected by HIV/AIDS

Social	Economic	Spatial
Individual	Consumer/producer	Living space
Family	Household	Home
Community	Unit of production	Village/neighbourhood
Tribe	Sub-sector	Province/regions
Ethnic group	Sector	Province/region
Nation	National economy	Country
Mankind	Global economy	Earth

Source: Whiteside & Sunter, 2000:82

Note: This is indicative – there will be variations in countries and societies.

In Sub-Saharan Africa and South Africa in particular, the epidemic is of different magnitude and the impact of the epidemic will be much more severe. At present the effects are only just beginning to be felt.

Reasons for this, are the following.

- South Africa is at the moment experiencing an HIV-epidemic, while the AIDS epidemic is still developing. However, the HIV epidemic is projected to peak in 2010, while the number of AIDS cases will still grow for another 5 to 10 years to come (refer Table 2.3).

- At micro-level, households will feel the full impact and effects of the HIV/AIDS epidemic. The economic impact will slowly manifest itself as the number of individual illnesses and deaths accumulate over a period of time.

- Another important factor is, that the economic impact will depend on how many people are infected and in which way they are affected. Everyone is seen as a potential consumer, even if they are not producers.

- Finally, as shown in Figure 2.8 social impacts will also arise, because people will interact in ways other than economically (Anon, 1999:25).

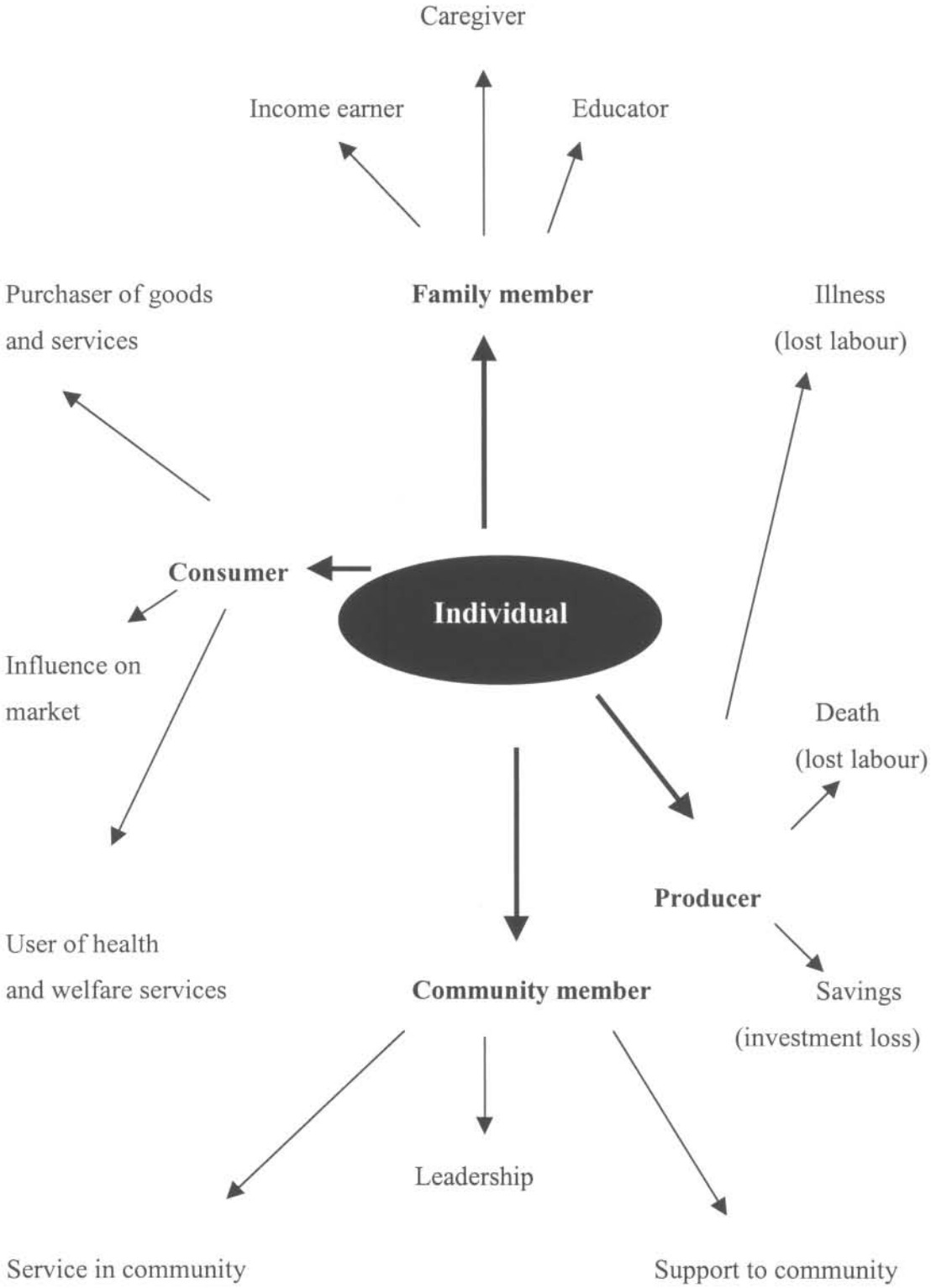
Table 2.3: Time scale of HIV/AIDS epidemic

From – to (in years)	Minimum	Maximum
First AIDS case to peak of HIV in urban areas	12	25
Urban HIV peak to national HIV peak	8	10
National HIV peak to peak in AIDS cases	5	10
Impact on next generation	10	85
Total	35	85

Source: Anon, 1999:27

Figure 2.8 to follows on p.38.

Figure 2.8: Inter-actor: the individual as an economic and social actor



Source: Whiteside & Sunter: 2000:84

South Africa has wasted too much time on an incomprehensible approach to the HIV/AIDS epidemic. While the window of opportunity has passed to prevent a generalised epidemic, positive steps could be taken to prevent the further spreading of the epidemic. The fact remains, that the direction that HIV/AIDS must take in the country, rests primarily with government (refer Chapter 4). It is government that has the power to create an environment in which positive steps can be taken to combat, prevent and manage the epidemic successfully (Adler, 2000:69).

2.3 THE GLOBAL IMPACT OF THE HIV/AIDS EPIDEMICS

The Joint United Nations Programme on HIV/AIDS (UN-AIDS) and the World Health Organisation (WHO) have estimated, that at the end of 1999, 33,4 million people (32,4 million adults and 1,2 million children) were infected with HIV. Approximately 96 per cent of people with HIV/AIDS live in the developing world and recent estimates suggest, that of all people infected with HIV world-wide, 70 per cent (6 out of every 10 men, 8 of every 10 women, and 9 of every 10 children) live in sub-Saharan Africa (refer Appendix C). More than 40 million people globally will be HIV-positive by the end of this year, and still no cure has been found. The impact of the epidemic is already being felt in most developing countries, including South Africa. Life expectancy has been significantly reduced, as many people in the 15 to 59 year age group are now dying of AIDS. It is further predicted, that the infection rates could continue to rise in countries where poverty, poor health systems, lack of education, inequality and limited resources for the prevention and treatment of the epidemic are evident (Allen, Simelela & Makubalo, 2000:9).

The following table shows the spread of the HIV/AIDS epidemic on a world-wide scale, as well as regionally, and these figures were released in December 1999 by the World Health Organisation (WHO).

Table 2.4: Global summary of the HIV/AIDS epidemic, December 1999

People newly infected with HIV in 1999	Total	5,6 million
	Adults	5 million
	Women	2,3 million
	Children <15 years	570 000
Number of people living with HIV/AIDS	Total	33,6 million
	Adults	32,4 million
	Women	14,8 million
	Children <15 years	1,2 million
AIDS deaths in 1999	Total	2,6 million
	Adults	2,1 million
	Women	1,1 million
	Children <15 years	470 000
Total number of AIDS deaths since the beginning of the epidemic	Total	16,3 million
	Adults	12,7 million
	Women	6,2 million
	Children <15 years	3,6 million

Source: Helfand, Lazarus & Theerman, 2000:1028

Table 2.5 to follows on p.41.

Table 2.5: Regional HIV/AIDS statistics and features, December 1999

Region	Epidemic started	Adults & children living with HIV/AIDS (prevalence)	Adults & children newly infected with HIV in 1999 (incidence)	Adult prevalence rate (per cent)	Proportion of HIV-positive adults who are women (per cent)	Main mode(s) of transmission for adults living with HIV/AIDS
Sub-Saharan Africa	Late '70s – early '80s	23 300 000	3 800 000	8,0	55	Hetero
North Africa & Middle East	Late '80s	220 000	19 000	0,13	20	IDU, Hetero
Southern & South-East Asia	Late '80s	530 000	120 000	0,07	15	IDU, Hetero, MSM
Latin America	Late '70s – early '80s	1 300 000	150 000	0,57	20	MSM, IDU, Hetero
Caribbean	Late '70s – early '80s	360 000	57 000	1,96	35	Hetero, MSM
Eastern Europe & Central Asia	Early '90s	360 000	95 000	0,14	20	IDU, MSM
Western Europe	Late '70s – early '80s	520 000	30 000	0,25	20	MSM, IDU
North America	Late '70's – early '80's	920 000	44 000	0,56	20	MSM, IDU, Hetero
Australia & New Zealand	Late '70s – early '80s	12 000	500	0,1	10	MSD, IDU
TOTAL	Late '70s – early '80s	33 600 000	5 600 000	1,1	46	

Source: Whiteside & Sunter, 2000:38

Note the following:

- The adult prevalence rate in the fourth column, is the proportion of adults (15 to 59 years of age) living with HIV/AIDS in 1999, using 1998 population numbers as the denominator.
- In the last column, "MSM" stands for sexual transmission among men who have sex with men; "IDU" stands for transmission through drug use by injection; "Hetero" stands for heterosexual transmission.

2.3.1 The nature and diversity of the HIV/AIDS epidemic around the world

In many industrialised countries, the epidemic is largely under control, due to effective treatment and adequate health care systems. The total number of new cases of HIV/AIDS and AIDS deaths has fallen significantly, because of the availability of anti-retroviral therapy for most of those who are infected. In America the total AIDS deaths has decreased by almost 42 per cent between 1996 to 1997 and another half of that percentage by the end of 1998. In Europe, the number of deaths has fallen some 20 per cent by the end of 1989. However, this does not mean, that the epidemic is under control on a world wide scale. In fact, a new development reported by UN-AIDS researcher, is that the so-called "Life-prolonging therapies" may lead to the risk in risky behaviour by those who are already infected. There is also evidence to suggest that the HIV infections among those who are at particular risk in contracting the disease, are actually increasing. These include drug users and other marginalised groups. What makes it more serious, is the fact that in a population with a history of high risk behaviour, the absolute number of HIV-positive people are actually growing, because they are surviving longer with the so-called anti-retroviral treatment (Whiteside & Sunter, 2000:39).

2.3.1.1 General

UN-AIDS together with the WHO, also estimated that some 15 million people were living with the HIV virus in the West at the end of 1999. These regions include North America, Western Europe, Australia and New Zealand. However, the world's steepest HIV epidemic curve in 1999, was recorded in the newly independent states of the former Soviet Union, where population figures doubled for those who are infected with the HIV-virus. In the Middle East the level of reported infections remains relatively low. In Tunisia the use of drugs is one of the main contributors responsible for more than one-third of AIDS cases reported. In Egypt, one HIV/AIDS case in 10 is among drug users, while in Pakistan 5,4 per cent of 703 drug injectors tested HIV-positive. It is not only drug abusers, but also a combination of both drugs and high risks behaviour, that make out the main culprits in the spreading of the epidemic.

2.3.1.2 Latin America, the Caribbean and Haiti

In Latin America, the HIV-epidemic is still low, while even among people with sexual transmitted diseases that are usually considered as a high-risk group, the HIV-infection rates are relatively low. In Uruguay similar low rates of infections were recorded. The HIV-epidemic is not the same everywhere. In Central America and the Caribbean, HIV-infections are on the increase. In Guatemala two to four per cent of pregnant woman tested HIV-positive at antenatal clinics in major urban areas in 1999. It is predicted, that the Caribbean basin has some of the worst HIV epidemics outside of sub-Saharan Africa. In Guyana the HIV prevalence rate was 3,2 per cent in blood donors who were thought to represent a population at low risk. Research in respect of urban sex workers in 1998, showed that approximately 46 per cent were already infected. In Haiti, HIV surveillance among pregnant woman carried out in 1996, showed that 6 per cent tested positive for the virus (Whiteside & Sunter, 2000:41).

2.3.1.3 Asia

In Asia the results are mixed. In some countries the epidemic appears to be under control. These include the Philippines, Malaysia and Sri Lanka. In Bangladesh, Indonesia, Vietnam and Pakistan, the prevalence rates are relatively normal, but could rise as the HIV-virus spreads out from mainly drug users the general population. Elsewhere on the Asian Continent, it appears that HIV-infected incidences are becoming a serious and fast-growing epidemic. Asia's highest levels of infection continuous to be recorded in Cambodia, where surveillance indicates, that the HIV epidemic is well established in the general population. Nationally some 3,7 per cent of married women of reproductive age were tested HIV-positive at the end of 1998. At present the prevalence rate in men is somewhat higher at 4,5 per cent of male blood donors compared to 2,5 per cent of female donors. The result is that the HIV epidemic is a fast growing one among the heterosexual population.

2.3.1.4 India

Because of India's high population figure this means that they will dominate assessments of HIV prevalence in Asia. However, in India the situation is extremely variable. In the Southern regions of the country, HIV has a significant grip on the urban populations, with one pregnant women testing HIV-positive out of every 50 women attending state antenatal clinics. In the North East the HIV-infection has been spread through drug injections and has spread the virus already to the general population. India however, still remains as one of the worst hit areas on the Asian continent and indeed in the world.

2.3.1.5 China

China, another huge and vast country on the continent, represents a relatively low HIV infection rate compared to India. It is important to take note that China is not regarded as a developing country but for the sake of explaining and to understand the HIV-trend on the Asian continent reference will be made to China's situation. The bulk of new infections remain to be concentrated in the drug using population but the trend is started to change dramatically. In the densely populated coastal region of Gwangdong, in China, the percentage of drug injectors has rose from almost zero in 1998 to almost 11 per cent by the end of 1999. The potential for HIV to spread from drug injectors to the general population is a threat that are becoming more and more a reality. It is also estimated that there are as many as four million sex workers throughout the country with devastating consequences (Whiteside & Sunter, 2000:43).

2.3.1.6 Thailand

Thailand however, shows opposite trends concerning the spreading of the HIV infections. Also regarded as a developed country, the government in 1991 already started with its prevention efforts, well ahead of the rest of the world. One of their success stories was, to make it compulsory for condoms to be used in brothels. As the condom use rose, so did the number of Sexual Transmitted Diseases (STD) fall. This in-turn, had a positive influence on the spreading of the HIV virus in the general

population. It is a well-known fact by now, that in order to prevent the HIV epidemic from spreading, prevention methods must first be introduced to prevent or successfully treat STD infections. The result will have a positive outcome for the spread of both HIV/AIDS. In the badly affected Northern region of Thailand, the percentage of HIV-positive people infected, fell dramatically from 6,4 per cent to 4,6 per cent in 1997, with this new precautionary action introduced by government (Adler, 2000:69).

2.3.1.7 Africa

The picture in Africa is similar to that of Asia – a mixed one. While North Africa is relatively HIV-free, Sub-Saharan Africa is one of the worst affected areas in the world at present (refer Appendix C). At the beginning of 2000, it was estimated by the World Health Organisation, that the HIV virus already had infected 23,3 million people in sub-Saharan Africa. This means, that 70 per cent of the world's infections are found in an area with 10 per cent of the global population. Another important statistic is, that almost 90 per cent of all infants and child infections are also found in this part of the world, which means that it will have serious sosio-economic implications for the region in future (World Health Organisation, 1998:166).

The following table presents the number of populations worst infected with HIV/AIDS at the end of 2000.

Table 2.6 to follows on p.46.

Table 2.6: Global estimates of total populations infected with HIV/AIDS at the end of 2000

Region	Total number of people infected with HIV/AIDS
North America	920 000
Caribbean	390 000
Latin America	1 400 000
Western Europe	540 000
North Africa & Middle East	400 000
Sub-Saharan Africa	25 300 000
Eastern Europe & Central Asia	700 000
Southern & Southern East Asia	5 800 000
Eastern Asia & Pacific	640 000
Australia & New Zealand	15 000 000
TOTAL	**36 100 000**

Source: McGeary, 2001:48

It is globally agreed, that HIV/AIDS is the worst infectious disease to hit the African continent recorded in history. According to the World Bank, deaths due to the HIV/AIDS epidemic in Africa, will soon surpass the 20 million Europeans killed by the plague epidemic of 1347 to 1351. Population-based surveys, indicate that infection rates in men are significantly lower than in women in the same region. UN-AIDS in conjunction with WHO, estimated that at the end of 1999, 12,2 million women and 10,1 million men aged 15 to 59 were already infected with HIV. The data implies, that in many Sub-Saharan countries, men will start to outnumber women very soon. The epidemic is, however, not uniform in all parts of the African continent. In many West-African countries for example, the spread of the HIV virus is still slow and in some cases even contained, as in the case of Uganda. In Nigeria the epidemic is fast emerging and spreading, while the Eastern and Southern regions of Africa are the worst affected areas in the world. The reason for the fast spread of the epidemic in these regions, is that Africa is a relatively poor and underdeveloped continent. Most African countries are still underdeveloped or are still developing nations with

fragile economies and infrastructures with health care and education systems still in a poor state. In Africa the HIV/AIDS epidemics have reached enormous proportions, with devastating consequences for the continent (McGeary, 2001:48).

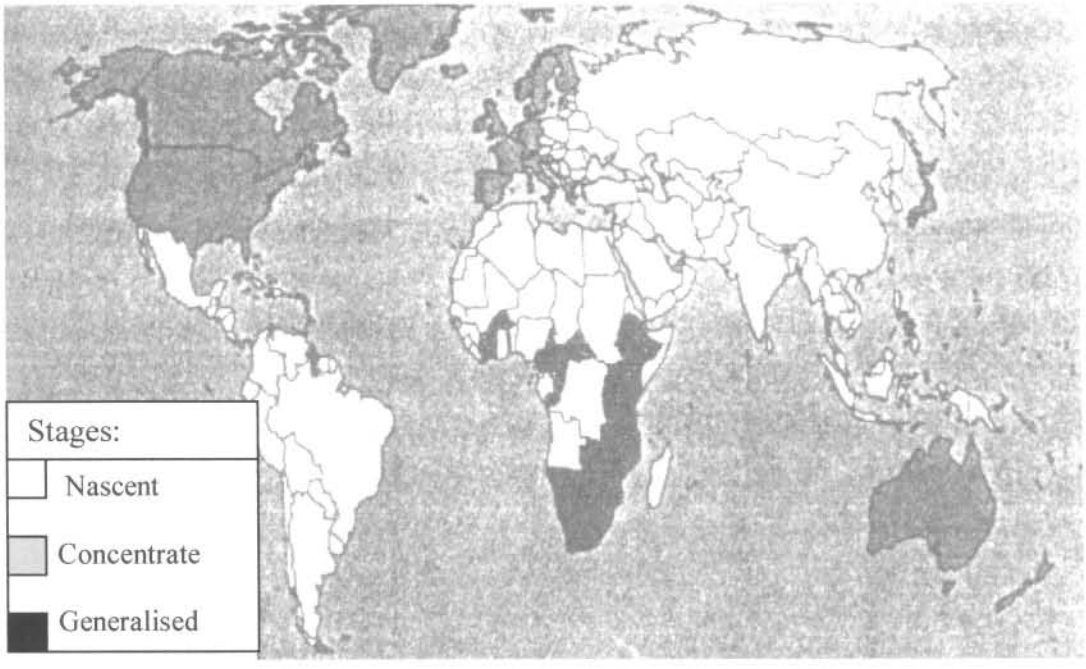
The following facts speak for themselves.

- In the past decade, 12 million people in Sub-Saharan Africa have died as a result of AIDS.
- Each day AIDS claims another 5 500 men, women and children.
- In 1998, AIDS was the largest killer on the African continent, accounting for 1,8 million deaths in Sub-Saharan Africa alone. It is nearly double the one million deaths for Malaria and eight times that of TB.
- A 15-year-old living in Zambia today, has a 60 per cent chance of dying from AIDS before his/her 35th birthday.
- Where at least 10 per cent of the adult population is HIV positive, AIDS will soon be reducing life expectancy by as much as 17 years.
- Due to children acquiring the infection before or during birth, in Namibia, infant mortality is expected to reach 72 per 1 000 live births as opposed to 45 per 1 000 without AIDS.
- In Zimbabwe some organisations have reported that AIDS costs are absorbing as much as one fifth of the gross national earnings.
- In Zambia some organisations report that AIDS illness and death already cost them more than their total annual profits (McGeary, 2001:49).

Another way of viewing the epidemics around the world, can be explained by identifying three major stages, as shown in the following figure.

Figure 2.9 to follows on p.48.

Figure 2.9: Stages of the HIV epidemic in developing countries around the world



Source: Whiteside & Sunter, 2000:38

Note: This figure is only representative of under or still developing countries such as South Africa for example.

These stages can also be briefly explained as follow.

- Nascent: HIV is less than 5 per cent in all known sub populations presumed to practice high-risk behaviour.

- Concentrated: HIV prevalence is above 5 per cent in one or more sub populations presumed to practice high-risk behaviour but only among women attending State antenatal clinics that are still below 5 per cent.

- Generalised: HIV has spread far beyond the original sub-populations with high-risk behaviour, which is now severely infected. The prevalence rate among women attending state antenatal clinics, is 5 per cent higher.

The reality is, that South Africa in particular has an epidemic much larger than experienced by the worst-hit industrialised country in the world (refer Table 2.6). It is, however, important to take notice that different countries have different epidemic patterns, which implies, that different precautionary programmes and strategies will apply for those countries infected.

In his address to symposiums around the world, Dr. Piot, an executive director of UN-AIDS, expressed the belief, that meeting the challenge imposed by the HIV/AIDS epidemic, is a complex but feasible one. He identified five crucial elements that will be needed to turn the tide of the epidemic. By this statement, he implied not only prevention of new infections, but also the acceleration of suffering resulting from the epidemic (Adler, 2000:58).

These elements include the following.

- Tools (which are already available) to curb the epidemic.
- A shift in thinking about how to confront the epidemic.
- A need to think big – from pilot to countrywide and regional interventions.
- Ongoing learning through basic and applied research.
- Investment in global public goods, such as knowledge, vaccines and pharmaceutical products.

2.4 THE SOCIO-ECONOMIC IMPACT OF HIV/AIDS IN SOUTH AFRICA

The World Health Organisation (WHO), predicted that HIV/AIDS will soon cost the world economy $5 000 billion a year, or four times South Africa's $122 billion economy. Even if only 10 per cent of South Africa's estimated 3.6 million HIV-

positive inhabitants should be treated next year, the cost could amount to ± R5 billion. Apart from the spending on health care alone, a similar amount will be lost through productivity losses, reduction of the buying power, retraining of new employees and absenteeism. This will have a devastating affect on the already fragile South African economy (Van Zyl, 1999:10).

The irony of the situation is, that the HIV/AIDS epidemic is still far from peaking. According to the South African Health Department (DOH), the infection in South Africa has risen by 33,8 per cent during last year. It is an increase that will result in illness and deaths among the economically active people of South Africa, with tremendous social consequences for the country. It will also put strain on limited resources and infrastructure. So why are South Africans still turning a blind eye to the impact of HIV/AIDS?

In a recent survey carried out among South African businesses, Old Mutual found, that 86 per cent of employees were aware of the effect HIV and AIDS could have on health benefits, but only 3 per cent saw it as an important strategic issue in their own context. "For the majority of South Africans HIV and AIDS are still too broadly regarded as someone else's problem," says political analyst Mr. Willie Esterhuyse. "It has long been more than just a bedroom problem" (Van Zyl, 1999:11).

The threat of AIDS claiming 1 500 lives a day within the past two years and the severe consequences it has for the South African economy, at least seem to be spurring government and business into action. Is it too late or could government and business still make a difference?

2.4.1 HIV/AIDS and the economic implications for South Africa

The UN has ranked South Africa twelve positions lower in its Human Development Index (HDI), because of the shortened average life expectancy of its economically active population. It is further estimated that the life expectancy will reach 48 years on average by the year 2008 as a result of expected AIDS-related deaths. This means, that other countries world-wide will think twice before investing in South Africa. It is

also predicted, that every economically active South African will pay for the consequences of the country's large incidence of HIV infections tax-wise, or through higher medical and life assurance premiums. As Professor Ruben Sher, Director of the National AIDS Training and Outreach Programme, explains: "We can't even visualise what it will cost South Africa's economy in future, notably from 2005, when millions of HIV-positive cases develop into full-blown AIDS". He also stressed the fact, that organisations should be filled with trepidation, knowing that this will have a huge effect on South Africa's Gross Domestic Product (GDP). South Africa's economically active workforce is fast becoming HIV-positive. "We're talking about a loss of unskilled and skilled workers, as well as training costs, much lower productivity and higher costs of health care and pension pay-outs in the event of death". Productivity will be affected through disease and funeral attendance, together with a higher incident of accidents and even discrimination and tension within the workplace (Van Zyl, 1999:11).

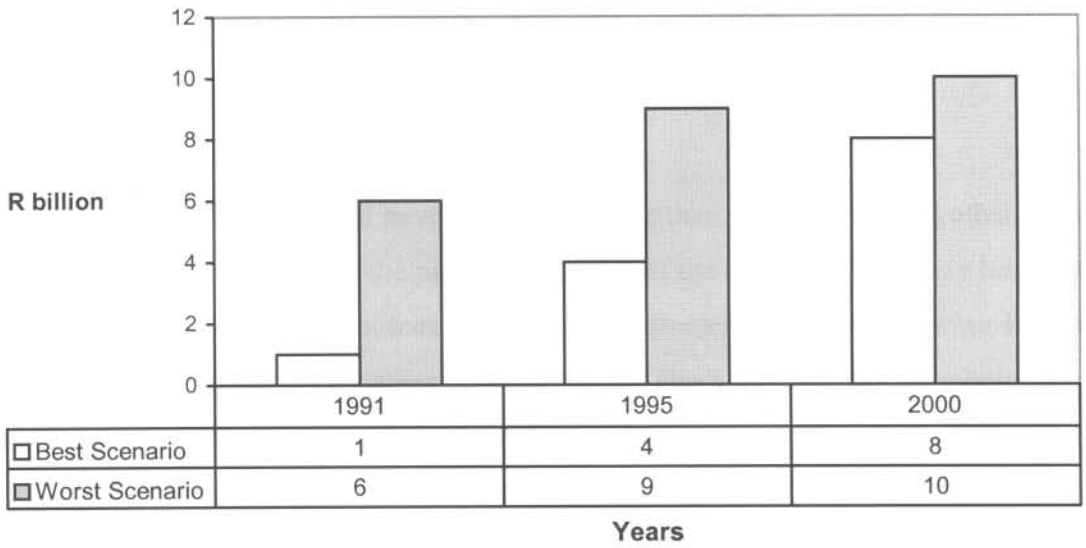
Another important factor that will have a negative impact on the economy, is the ever-diminishing buying power of consumers. When people have less money to spend, or when six million people are suddenly no longer there, it will seriously affect the economic growth of South Africa. Metropolitan Actuary Deane Moore believes that HIV will affect the production capacity to such an extent by 2005, that organisations will battle to survive. He further estimates, that employers already pay R500 to R1 000 more on average per person in terms of medical fund contributions each year. This amount to R200 to R400 a month more for an average family and these figures can be expected to escalate in years to come. The assumption can, therefore, be made that HIV/AIDS will affect the average family's disposable income by 10 to 15 per cent and that this figure will drastically rise as the impact of the HIV/AIDS epidemic is felt everywhere (Anon, 2000:11).

Another fact is, that treatment for HIV/AIDS patients will cost between R24 000 and R34 000 a year. This is still well below the WHO estimates of $15 000 (±R91 500) a year. Dr. G. Haggis Guild, an AIDS consultant to Billiton and Angus Vaal, explains, that South Africa is economy could not afford to give each of the estimated 3,6 million HIV-positive people triple therapy. At a conservative R200 a month, the cost

would be in the region of R129, 6 billion, which contributes about 17 per cent South Africa's National Gross Domestic Product (Van Zyl, 1999:10).

Figure 2.10 predicts the effect HIV/AIDS will have on direct health costs for the country.

Figure 2.10: HIV/AIDS in South Africa: surge in indirect health costs



Source: Van Zyl, 1999:10

2.4.2 The impact of HIV/AIDS at micro-level

Besides the effect on the economy, HIV/AIDS will also seriously affect the micro- or household level of the country. The economic and social impact of HIV/AIDS remains a complex issue and is hard to predict. Household structure and behaviour will change dramatically as the size, composition and productivity of the labour market are affected. Infected individuals will require medical treatment and special foods, increasing demands on households with limited resources. At the same time, if the person is an adult, illness and death will reduce household production capacity and result in a decline of the total income earned by households. There are no studies at present in South Africa on the effect of HIV/AIDS on households. The only broadly-

based study of household responses to the impact of HIV/AIDS is the Kagera study conducted in Tanzania (Whiteside & Sunter, 2000:90).

The overall economic impact of an adult is demise on surviving household members, varies according to certain characteristics and determinants.

- The deceased individuals age, gender, income and actual cause of death.
- The household itself, such as composition and assets.
- The community, such as attitudes towards helping and supporting needy households as well as the general vulnerability of resources.
- Living standards within the community.

It seems that HIV/AIDS will have a greater impact than will deaths from other causes. The main reason for this, is the protracted nature of the illness. There may be lengthy depletion of household resources, giving rise to greater and more enduring hardship than might be the case with other types of death. The South African population is, by African standards, highly urbanised, with over 50 per cent of the population living in urban or pre-urban areas. The reasons for this, are that there are no developed community support mechanisms and that people are more seriously impoverished and that many do not have access to sufficient food crops (Thomas & Khupiso, 2000:1).

Another possible problem facing people in South Africa, is the type of scheme whereby basic homes are provided to poor people. The concept is that basic housing should be provided, with occupants paying towards the cost of their homes and for utilities. If households are facing the loss of income and increased demand on their resources on account of HIV/AIDS, this may no longer be feasible. The links between poverty and health are increasingly recognised. It is not 100 per cent clear, that AIDS is actually a disease of poverty, although poverty undoubtedly helps to drive and nourish the epidemic. In South Africa the poorest 40 per cent of households receive only 11 per cent of the total income, while the richest 10 per cent receive 40 per cent of the total income. About 50 per cent of the total population (±21 million) live in the poorest 40 per cent of households and are, therefore, classified as being poor. For these households an AIDS case will certainly deplete income and increase

the demands on existing limited resources available. Thus, in effect HIV/AIDS, has the potential to push households deeper into poverty. An important scenario will be, that richer households will purchase assets from AIDS-stricken poorer households as part of the survival strategy, therefore resulting in the spreading of inequalities in the distribution of incomes and assets (Whiteside & Sunter, 2000:92).

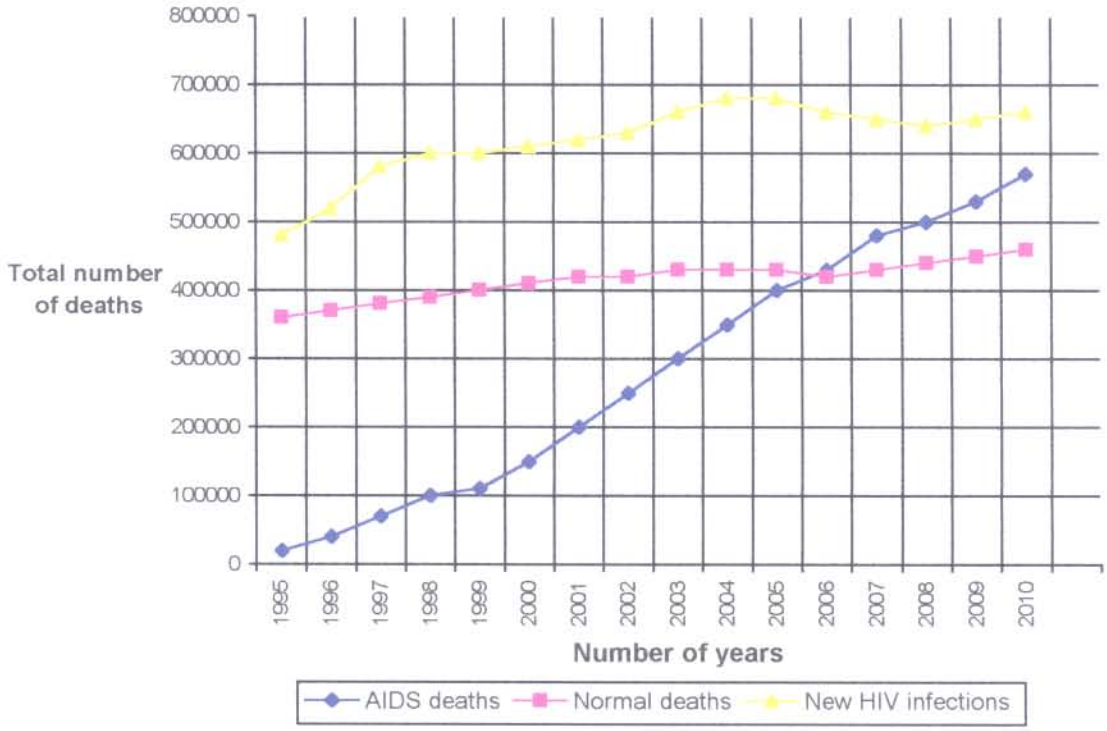
The cost of the disease will also affect households in one of the following ways.

- Where workers are too ill to work, they will be medically boarded, resulting in the loss of benefits. Ultimately they will be forced to rely on state funds in order to allow them to care for their families, putting a greater burden on government and State resources.
- State hospitals are more and more recognising that they can no longer provide sufficient and adequate care for people living with AIDS. Their patients are therefore, discharged to be cared for at home, which places extra financial burden on households.
- People living in urban areas, may return to their rural houses when they fall ill, but can no longer get access to sufficient health resources.

2.4.3 HIV/AIDS, the mortality rate and orphans

Besides the economic and household implications of HIV/AIDS for South Africa, another important factor to be taken into account, is the mortality rate. The most direct consequence of HIV/AIDS, is an increase in mortality. Without effective treatment of the HIV infection, people will develop full-blown AIDS and die. Another aspect, is that the age at which the majority of people are infected, means that AIDS will increase the rate of mortality among those who have the lowest mortality rates. The impact of HIV-mortality is clearly illustrated by the following figure (Adler, 2000:57).

Figure 2.11: Number of normal deaths, AIDS deaths and new HIV-infections



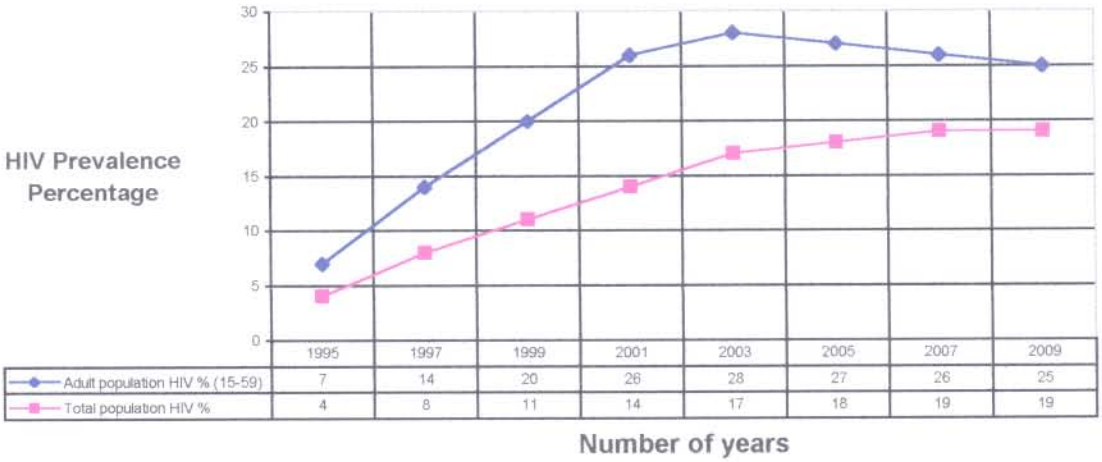
Source: Whiteside & Sunter, 2000:70

The figure clearly indicates that by about 2006, there will be many deaths resulting from AIDS as opposed to all other forms of death causes. The important fact to remember is that AIDS will kill mainly young adults in the economically active age group.

It is further estimated, that the AIDS mortality would probably peak at around 2004 to 2005 in South Africa, which will result in approximately 130 000 deaths per year. By 2016, the total number of cumulative deaths as a result from full-blown AIDS in KwaZulu Natal (the worst affected area in South Africa) alone will exceed two million people (Adler, 2000:59).

This particular province will have to face the legacy of 350 000 orphans in two years and 800 000 by the year 2010 as a direct result of the AIDS epidemic. The following figures support this view.

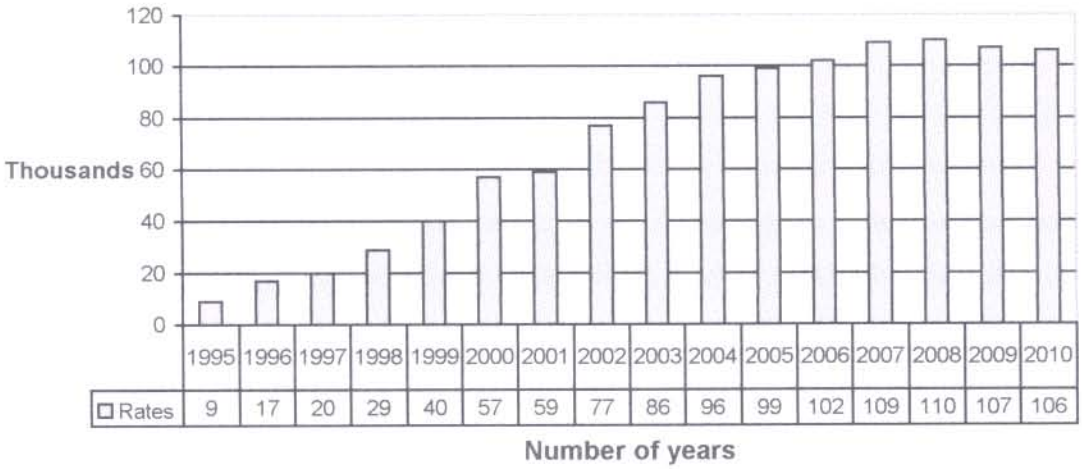
Figure 2.12: Projected total and adult HIV prevalence rates in KwaZulu-Natal



Source: Whiteside & Sunter, 2000:71

If the above percentage is translated into figures, then an estimated 1 115 000 adults are already infected in KZN. The projected deaths for this province, are illustrated in the next figure.

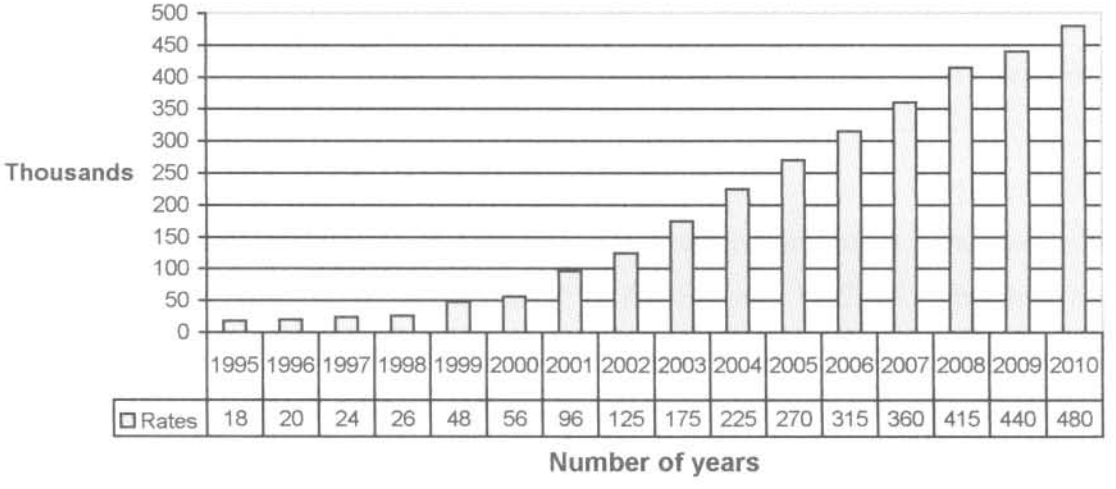
Figure 2.13: Projected AIDS deaths in KwaZulu Natal



Source: World Health Organisation, 1998:72

One of the conclusions that can be drawn from the data, indicate that the total population of KwaZulu Natal will continue to grow until 2008, after which it is expected to decrease sharply. This will in turn result in a sharp increase, in the total number of orphans as a result of the AIDS impact on the general population in KwaZulu Natal. These predicted trends are summarised in the next figure.

Figure 2.14: Projected AIDS orphans in KwaZulu Natal



Source: World Health Organisation, 1998:72

The above data clearly indicate, that the population structure will change very rapidly and that a population growth will be seriously affected.

Before engaging into further discussion, it is absolutely imperative to understand what is meant by the terminology "AIDS orphan". An AIDS orphan is defined as a person of 15 years or younger whose mother or father has died of an AIDS-related illness. It is further estimated that one third of all children born to HIV-positive mothers will be infected, while all children born to HIV-positive parents are doomed to be orphaned. For a child living with a parent who has AIDS, it will have serious social and psychological implications. As HIV is sexually transmitted, the consequences will be, that the other parent will also be infected. Children who lose one parent to AIDS are thus at a considerable risk of losing their remaining parent as well (Anon, 1999:7).

Manton Schönteich of the Institute for Secondary Studies in Pretoria predicts a bleak and frightful future. He warns, that AIDS and age will be significant contributors to an increase in the crime rate of South Africa over the next 10 to 20 years. There will be a boom in South Africa's orphan population during the next decade, as the AIDS epidemic takes its toll among the population of South Africa. Every fourth South African will be between the age of 15 and 24 years. Within this age group people's propensity to commit crime, are at its highest (Van Zyl, 1999:11).

Research conducted by UN-AIDS has shown that adult relatives look after only 12 per cent of the world's orphans. So, in effect, 88 per cent are cared for by the state or have turned to begging and crime in order to survive, which in turn will have great implications for South Africa.

Gauteng Health Department (AIDS Programme Director, Liz Floyd) says that South Africa will already have orphans as a result of AIDS deaths by 2005. This province alone, will have to care for 100 000 AIDS orphans in 2003 and 500 000 in 2015. The result will be massive social problems and costs, which will be the tragic consequences of AIDS, and which will ultimately also affect population and tourism growth, as well as South Africa's support structure (Van Zyl, 1999:12).

The question now arises: Who will care for these children? The best environment to raise any child is within a family, but this may not always be feasible. Other alternatives may include community- or neighbourhood-based structures or enterprise-centred "Kibbutz" type collectives for women and children. Institutional care should be considered only as a last resort. South Africa will also experience a rapid increase in the number of children growing up with no parents at all, or only one parent because of the effects of AIDS. Most orphans will grow up without adequate parental supervision, guidance and discipline under these impoverished conditions. Without a home, mass work-seeking migrations into urban centres, will be the only option for many orphans. Without a family support structures, these children are vulnerable to many types of exploitations such as the following.

- being hired for sweatshop labour,
- forced into commercial sex work,
- co-opted into gangs,
- girls existing at great risk, as they are preferred for domestic work.

As Mann and Tarantola (1996) rightfully suggests, there is one golden rule when it comes to HIV/AIDS: no matter how or where the epidemic enters a country, it will always move to those communities which are marginalised, stigmatised and discriminated against, prior to the onset of the epidemic. South Africa is a good example of this maxim. The country has emerged from an intensively repressive past. Yet it is precisely these types of environments that lie in the heart of the behaviour that spreads HIV/AIDS. It also explains to a certain extent, why South Africa has one of the fastest growing epidemics in the world. Finally, current procedures for adoption needs to be re-evaluated for the future placement of huge numbers of orphans in the next 5 to 10 years. These procedures need to be implemented now (Adler, 2000:69).

2.5 CONCLUSION

The way, in which management addresses HIV/AIDS in the workplace, will determine whether companies survive the first decade of the 21st century. Already a negative growth rate had been identified in KwaZulu Natal by the end of 1999, due to the effects of the HIV virus. Based on the most recent statistics, it is projected that 11 per cent of the total South African workforce is HIV-positive and an estimated 0,6 per cent have full-blown AIDS. By 2020, 21 per cent of the South African workforce is projected to be HIV-positive with 2,9 per cent AIDS sick (Vincent, 2000:1).

These predictions can have far-reaching implications for South Africa's economic growth and stability. HIV/AIDS are the greatest challenge facing the country. Business, together with government and all parties interested, must unite and find a solution for the effective management of AIDS in Africa. An African solution must be found for an African problem. Prevention of the epidemic needs to be the first priority. The lack of prevention will mean that South Africa has to deal with the

impact flowing from the illness and death of many of people. As already, indicated AIDS will initially be felt by the health sector, followed by the private sector who already care for a sizeable percentage of South Africans, most of whom are covered through medical aid schemes. One of the most important principles challenging the private sector is to understand the benefits in providing care for workers as well as the effective management of HIV/AIDS in the workplace. This could be achieved only by setting clear and reliable objectives and goals, as well as the implementation of cost-effective methods and strategies that will actually be successful in limiting the spread of the disease.

Although many of the impacts have been briefly discussed, many of them are already in full progress. Much will depend on how the epidemic is handled and managed over the next few years to come. It's a crucial time now; there is still adequate time to take precautionary measures and to make a difference.

In the next chapter (Chapter 3), the focus will be on the threat HIV/AIDS poses to the South African business sector and how organisations could respond to the legal challenge and implications that HIV/AIDS have on the working environment, as well as current structures available on national and provincial level to fight the disease head-on.