

Chapter 2

HIV/AIDS as social phenomena

1. Introduction

AIDS is a relatively new and unique disease (Evian, 2000:3). It is a disease that kills millions of people globally. According to UNAIDS (2002:8) in 2001, 3 million people died around the world. AIDS frightens everyone around the globe and questions are posed everyday about where HIV/AIDS comes from, what it is, why does it kill people. The effects of HIV/AIDS are felt all over the world. The economy is affected due to number of deaths. Children are left without parents. TV's and radios are promoting funeral covers every moment due to the increased death rate since the discovery of HIV/AIDS. Condoms are distributed everywhere and even advertised. This is a very serious pandemic, which needs a full understanding of this disease. Piot, UNAIDS Director (in Cohen, 2000:4) says that whether you do sophisticated molecular biology or research with the latest antiretrovirals, it is important to get a sense of what the epidemic is all about.

This chapter will focus on defining what HIV/AIDS is; its origins; how it is acquired and how can we deal with it so that we save so many people living with it or even dying from it.

2. Definition of HIV/AIDS

According to Berer and Ray (1993: 6) HIV stands for human immunodeficiency virus and it is a sexually transmitted disease. Like some other sexually transmitted diseases, it can also be

transmitted through blood and during pregnancy. Like herpes, and syphilis, HIV is a virus that affects the whole body. It can take few or many years before it causes serious damage, and be fatal. HIV cannot live on its own, or in the air or water.

Berer and Ray (1993: 8) say AIDS stands for acquired immune deficiency syndrom. Immune deficiency means that the immune system is being prevented from functioning. A syndrome is a group of symptoms or illness originating from one cause, in this case HIV.

Berer and Ray (1993:6), Whiteside and Sunter (2000: 1), Van Dyk (2001:4), and Barrett-Grant, Fine, Heywood and Strode (2001: 10) agree that AIDS is an acronym which 'A' stands for Acquired. This means that the virus is not spread through casual or inadvertent contact like flu or chickenpox. In order to be infected, a person has to do something (or have something done to them), which exposes them to the virus. They say that 'I' and 'D' stand for Immunodeficiency. The virus attacks a person's immune system and makes it less capable of fighting infections. Thus, the immune system becomes deficient. 'S' stands for Syndrome. AIDS is not just one disease but it presents itself as a number of diseases that come about as the immune system fails. Hence, it is regarded as a syndrome.

The current Center for Disease Control (CDC) surveillance definition of AIDS requires the presence of a disease at least moderately indicative of defective cell-mediated immunity in an individual, who has no known underlying cause for such a defect or any other reason for diminished resistance to that disease (Cahill, 1984:10).

If HIV reduces immune function to a certain level, and/or when one or more serious illnesses related to HIV occur, a person is said to have AIDS. Immune function can be measured by testing for the number of T4 cells (also called CD4+ lymphocytes) in the blood. Immune function is considered to be at an advanced stage of impairment when this count goes below 200 per cubic millimeters of blood that is when the CD4 count is below 200 (Berer & Ray, 1993:6; Van Dyk, 2001:13; Crewe & Orkin, 1992:4).

Barrett-Grant, et al. (2001:10) agree with the above authors and add that HIV is a virus that is only found in human beings, and it attacks and slowly damages the body's Immune system. When this happens, you get a group of particular medical conditions called AIDS-defining conditions or illnesses' and we say that you have developed Acquired Deficiency Syndrome

(AIDS). Therefore HIV causes AIDS. This explanation of what HIV/AIDS is, is also supported by the World Health Organisation (WHO) - Fact sheet (2000a: 1) as well as Soul City - Know the Facts (2002).

According to Soul City - Know the Facts (2002) extensive studies around the world, in developed and developing countries, have led most scientists, doctors and nurses to conclude that HIV is the cause of AIDS.

Their conclusion is based on a set of four globally recognized criteria that are used to determine the cause of a disease. They are called the Bradford Hill criteria and they state:

- The cause must always come before the disease.
- There must be strong statistical evidence showing the links between the cause and the disease.
- There must be a biologically sound explanation of how the cause results in the disease.
- Higher levels of the cause lead to more disease.

HIV as the cause of AIDS meets all of these criteria and can be explained as follows:

- **The cause must come before the disease**

There have been no cases of HIV infection occurring after a person has already become ill with AIDS.

- **There must be strong statistical evidence showing the links between the cause and the disease**

Numerous follow-up studies conducted around the world have shown that HIV negative people do not get AIDS. For example, a study in the US of 8 000 participants, found that people with HIV were 1 1000 times more likely to develop a disease associated with AIDS than someone without HIV (Soul City - Know the Facts, 2002).

- **There must be a biologically sound explanation of how the cause results in the disease**

When the HIV enters the human body it infects cells known as CD4 cells. These cells are part of the immune system and the cells that the body uses to defend itself. The HIV reproduces in these cells and in so doing destroys CD4 cells. Once enough of the CD4 cells are destroyed, an infected person is likely to fall ill with diseases that are less serious or very rare in people with healthy immune systems. At that stage, the person is said to have AIDS.

- **Higher levels of the cause lead to more disease**

Several studies of HIV infected people show that AIDS starts when there are a certain number of HI viruses in the blood (Soul City - Know the Facts, 2002). Those with 50-200 copies of the virus per cubic milliliter of blood have long survival times while those with over 100 000 copies show rapid deterioration and faster progression towards sickness and death.

Crewe and Orkin (1992: 4) also give an account about HIV affecting the T4 cells, which are a vital part of the body's immune system.

As stated previously HIV is the cause of AIDS. The link between HIV and AIDS is backed up by strong scientific proof (Crewe & Orkin, 1992: 4). They say that people from different backgrounds and lifestyles all over the world have developed AIDS – the thing that they had in common was that they were infected with HIV.

Van Dyk (2001:4) also supports the above authors about what AIDS is all about. According to her, AIDS is the acronym for Acquired Immune Deficiency Syndrome. It is said that this disease is acquired because it is not a disease that is inherited. It is caused by a virus (the human immunodeficiency virus or HIV), which enters the body from outside. Immunity refers to the body's natural inherent ability to defend itself against infection and disease. Deficiency refers to the fact that the body's immune system has been weakened so that it can no longer defend itself against passing infections. A syndrome is a medical term, which refers to a set or collection of specific signs and symptoms that occur together and that are characteristic of a particular pathological condition.

AIDS, whether the transmission is sexual or non-sexual it remains an epidemic disease whose natural history is still partly obscure and whose cure is unknown. It is a delicate, labile virus that does not survive for long outside the human body (Lachman, 1989: 23).

Authors mentioned above all agree on the definition of HIV and AIDS. These acronyms are known globally. However there are always questions about the origins of HIV/AIDS. The next section will give us perspective about the origin of HIV/AIDS in order to understand the phenomena better.

3. History of HIV/AIDS

HIV is a new complex virus. There are debates on how it evolved into its present form. Before anyone knew it existed, it was being passed from one person and country to another and had spread worldwide (Berer & Ray, 1993: 6). Controversial statements are often made regarding the cause of AIDS and where it originates because of its fatal nature and its sudden discovery. For example, during 2000, the South African president Thabo Mbeki's public statements casting doubt on whether HIV causes AIDS resulted in a lot of uncertainty. People were wrongly let into believing that poverty may be a major cause of AIDS, rather than poverty leading to conditions where HIV spreads faster (Barrett-Grant, et al., 2001:12).

Barrett-Grant, et al. (2001: 11) and Adler (1998) as quoted by Van Dyk (2001:5) mention that in 1981, doctors first started to see signs of a new illness amongst gay men in the United States of America. These men had developed unusual conditions, like a rare chest infection and skin disorders, and special test showed that their immune systems were damaged. Evian (2002:3) says that the men developed a rare pneumonia caused by a parasite called pneumocytis carini. He says that these men were previously healthy between 20 and 45 years of age and homosexually orientated. They also had developed severe immune deficiency, which led to the development of this rare pneumonia.

The early cases of AIDS were observed in gay men. After that, major epidemics were seen in another marginalized group namely injecting drug users in Western Europe, South East Asia, China and India. However, HIV and AIDS is not a disease of gay men or injecting drug users. HIV is mainly transmitted by different kinds of sexual behaviour or through accidental exposure to blood or other body fluids that are infected with HIV (Barrett-Grant, et al., 2001: 11).

Soon after 1981, HIV was discovered in Central Africa, was carried to Haiti and from there reached the USA through gay men. This theory was written into documents as a fact although it was later found that it is based on unreliable evidence. On top of this, the earlier numbers of people reported with HIV in Africa were found to be exaggerated because early tests gave many false positives. Westerners explained the high incidence of HIV in Africa as being the result of "promiscuity" and "traumatic sexual practices". This biased reporting resulted in further discrimination against Africans and angered many African governments and those

involved in AIDS programs (Gordan & Klonda, 1988:13; Adler, 1998 in Van Dyk, 2001:5; Evian, 2000:3).

The following section will focus on the extent of HIV/AIDS globally as well as in Africa, South Africa and Botswana.

4. Extend of HIV/AIDS

According to the reports by UNAIDS, the World Health Organisation and USAID in the year 2003 there were 40 million people living with HIV/AIDS globally of which 37 million were adults and 2.5 million were children. In the same year, the global number of people newly infected with HIV was 5 million of which 4.2 million were adults and 700 000 were children. The AIDS deaths globally in 2003 were 3 million people of which 2.5 million were adults and 500 000 were children (AIDS InSite, 2004:1).

According to the UNAIDS nowhere has the impact of HIV/AIDS been more severe than in Sub-Saharan Africa (AIDS & Africa, 2004). The UNAIDS further state that in the year 2002 there was an estimated 3.5 million adults and children who were infected with HIV in Sub-Saharan Africa. During the year 2002, 2.4 million people died of AIDS –related illness in Africa (AIDS & Africa, 2004). In the year 2003, approximately 3.2 million new HIV infections occurred in Sub-Saharan Africa (HIV & AIDS Statistics for Africa, 2004).

There are currently 13 million children orphaned by AIDS worldwide and 11million of them are in Sub-Saharan Africa (AIDS InSite, 2004:1). In South Africa, there were 5.3 million South Africans living with HIV in the year 2002. In the same year 2.3 million men and 2.95 million women were infected with HIV. There were 91 271 children who were infected by HIV by their mothers (AIDS InSite, 2004:2).

In 2001, it was estimated that there were 330 000 people living with HIV/AIDS in Botswana. This figure is 38.8% of the total population. One in four adults carry the HI virus (HIV&AIDS statistics for Africa: 1). In Botswana, among 25-29-year-old women attending antenatal care in urban areas, 55.6% were living with HIV/AIDS in 2001 (UNAIDS: 2001).

The number of people living and dying with HIV/AIDS is shocking. This calls for concern that we need to be aware of the causes of HIV/AIDS so that we can prevent the spread of HIV/AIDS.

5. Key characteristics of HIV/AIDS

HIV/AIDS seems to be a very complicated disease. From the discussions above it is evident that HIV/AIDS is a fairly new phenomena and it took time for it to be noticed. It is therefore very important that we are able to identify with ease that it is HIV/AIDS that the person is suffering from so that urgent steps can be taken to treat and support people. This section identifies the key characteristics of the disease and how it differs from other diseases.

Whiteside (1998: 14) identifies important features of HIV/AIDS, which he thinks call for mobilization of a broad response to the epidemic, namely:

- AIDS is a new epidemic. It was first recognized as a specific condition only in 1981 and it was not until 1984 that the cause (and a test to detect it) was identified. According to Evian (2000:3) and Van Dyk (2001:5) it was first described in America after a number of men had developed a rare pneumonia caused by a parasite called *Pneumocystis carinii*. These men were all previously healthy, between 20 and 45 years of age and homosexually- orientated.
- It has a long incubation period. Persons who are infected by the virus may have many years of normal productive life, although they can infect others during this period. According to Wilson, Naidoo, Bekker, Cotton and Maartens (2002: 48) and Van Dyk (2001:16) the response to HIV infection varies widely between individuals ranging from severe seroconversion illness with rapid progression to immune failure and death, to asymptomatic infection with essentially normal function. The median time to AIDS in developed countries from the point of infection is 8-10 years. Evian (2000:8) and Wilson, et al. (2002:48) talks about slow progressors and long term non –progressors respectively. These people generally remain well and active without any disease. The asymptomatic phase is usually associated with a CD4 cell count between 500 and 800 cells/mm³.
- The prognosis for people infected with HIV is currently bleak. Wilson, et al. (2002:53) adds that in the absence of successful prevention efforts, AIDS related deaths

are expected to rise from around 225 000 in the year 2001 to a plateau of around 630 000 per annum in 2012. By 2010 it is expected that two out of every three deaths could be AIDS related. The individual prognosis is best determined by integrating a clinical evaluation of the patient's immune status with information provided by the viral load and CD4 count.

- The disease is found mainly in two specific age groups, infants and adults aged between 20-40 years (Evian, 2000:3 &157; Wilson, et al., 2002:5). In the developing world, slightly more females than males are infected, and women are infected and develop the disease at a younger age than men. In this regard UNAIDS (2002:8) for example stated that in the year 2001, it was reported that there were 40 million people who live with HIV/AIDS. Of the 40 million who live with HIV/AIDS, 37.1 million are adults and 3 million are children under the age of 15. Out of the total number of adults who live with HIV/AIDS, 18.5 million are women. It is estimated 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 childbearing 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 (Dorrington, Bradshaw & Budlender, 2002:4).
- HIV interacts with other diseases, both in terms of causing HIV/AIDS to spread (e.g., sexually –transmitted diseases increase the rate of HIV transmission ten-fold) and arising from HIV infection, e.g. significant increase in tuberculosis cases are directly related to HIV (Wilson, et al., 2002:9; Evian, 2000:233-234; Talbot, Kenyon, Halabi, Moeti, More & Binkini, 1999:1). This implies that HIV will not only be a public health burden in itself, but it is directly linked to the burden of other significant public health problems. In general the epidemic is still spreading. In some Southern African countries it may have peaked in urban centers, but it continues to spread in the rural areas. According to Evian (2000:21) AIDS and other sexually transmitted diseases are often more common in lower socio-economic countries. For example, high unemployment rates, overcrowding, poor education, crime, too much alcohol consumption promote the spread of sexually transmitted diseases.
- HIV can only reproduce itself inside a living cell which it parasites for purposes of reproduction. It can therefore only live and multiply in human cells and cannot survive outside the human body (Van Dyk, 2001:7; Evian, 2000:180).

6. HIV/AIDS transmission

In the World Health Organisation (WHO) - Fact Sheet 1(2000a: 2) it is mentioned that HIV can be transmitted by:

- Sexual intercourse (vaginal, anal oral) or through contact with infected blood, semen, or cervical and vaginal fluids. This is the most frequent mode of transmission of HIV world wide, and can be transmitted from any infected person to his or her sexual partner (man to women, women to man, man to man and but less likely, women to women). The presence of other sexually transmitted diseases (hence forth call STDs) (especially those causing genital ulcers) increases the risk of HIV transmission because more mucous membrane is exposed to the virus.
- Blood transfusion or transfusion of blood products (e.g. obtained from donor blood infected by HIV).
- Injecting equipment such as needles or syringes, or skin-piercing equipment, contaminated with HIV.
- Mother to infant transmission of HIV/AIDS can occur during pregnancy, labour, and delivery or because of breast-feeding.

The HIV transmission modes listed above are widely supported by several researchers such as Crewe and Orkin (1992:4); Berer and Ray (1993:6); Ward (1999); Murphy, Brook and Brichal (2000: 2) as well as Gordan and Klonda (1998). Whiteside (1998: 14) further asserts that one of the key reasons for the rapid spread of HIV/AIDS in the world has been its transmission mode, a view shared by Whiteside and Sunter (2000: 10).

Aggleton, Homans, Mojsa, Watson and Watney (1989: 40-41) have the same views as the above authors about HIV transmission. They however further elaborate on how the actual transmission takes place. They say that the virus can be transmitted from man to man and from woman to man through penetrative sex without a condom. Sperm donors can also transmit it via artificial insemination although HIV antibody tests are now carried out on sperm donors to

ensure that the risks associated with this procedure are minimal. There is also some evidence that sexual transmission from woman to woman can take place.

Murphy, et al. (2000: 2) maintains that unprotected receptive anal intercourse is the highest-risk sexual behavior for the acquisition of HIV. Among gay men, anal sex without a condom is the activity, which carries the greatest risk particularly to the receptive partner, and anal sex between a woman and man may carry a similar risk.

Most people infected with HIV do not know that they have become infected. HIV infected persons develop antibodies to HIV antigens usually six (6) weeks to 3 months after being infected. In some individuals, the test for the presence of these antigens may not be positive until 6 months or longer (although this would be considered unusual). This time during which people can be highly infectious and yet unaware of their conditions is known as the window period (Murphy, et al., 2000: 2).

In adults, there is often a long, silent period of HIV infection before the disease progresses to "full blown" AIDS. A person infected with HIV may have no symptoms for up to 10 years or more (WHO- Fact Sheet 1, 2000a: 3). The vast majority of HIV-infected children are infected in the peri-natal period, that is, during pregnancy and childbirth. The period without symptoms is shorter in children, with only a few infants becoming ill in the first few weeks of life. Most children start to become sick at 2 years of age, however a few remain well for several years (WHO- Fact Sheet 1, 2000a: 3).

Sero-conversion is when a person recently infected with HIV tests sero-positive for HIV antibodies. Some people have a "glandular fever" like illness (fever, rash, joint pains and enlarged lymph nodes) at the time of sero-conversion. Occasionally acute infections of the nervous system (e.g. aseptic meningitis, peripheral neuropathies, encephalitis and myelitis) may occur (World Health Organisation (WHO) - Fact Sheet1, 2000a: 2).

Wilson, et al. (2002:50) further explains that severe sero -conversion illness, with symptoms persisting for more than two weeks, is associated with high set point viral load and poor prognosis. At the time of initial illness there is a "window period" when the HIV Elisa test will be negative although viral antigens or RNA can be detected in the blood. Individuals with acute

HIV infection represent a challenge to blood transfusion services as they are HIV antibody negative but contain high levels of infectious virus. Sero-conversion follows the window period.

From the bloodstream, HIV has been isolated in cells in the gastro-intestinal tract, kidney, lungs, bone marrow, certain brain cells, adrenal glands, eyes heart, joints, liver, skin and thymus. HIV is a slow-acting virus. Low levels of HIV may remain quietly in the body for years and appear to cause few or no problems. Overtime, other organisms that can cause illness will get into the bloodstream, and the immune system is activated. T4 cells are also activated, and those containing HIV produce more HIV. New HIV virus can then enter more T4 Cells. This is why maintaining health and getting early treatment for any illness is important for people with HIV. The more the immune system is activated to fight infections or disease, the more HIV replicates. HIV also slowly seems to prevent the blood from producing new T4 cells. It is not clear whether HIV directly destroys the immune system or provokes the immune system into self-destruction. As fewer healthy T4 cells remain to fight infection, a cycle of HIV – related illness begins. Certain potentially fatal organisms, which would normally be controlled by the immune system, are able to cause illness. These infections are called opportunistic because the failing immune system gives them the opportunity to take over (Berer & Ray, 1993: 8).

Perinatal transmission may occur through a number of different pathways; it can happen before birth, during delivery or during breast-feeding (Ward, 1999: 45).

HIV can be transmitted from mother to child before and around birth in a number of ways. Before birth, HIV may be transmitted across the placenta to the blood or perhaps via vaginal and cervical secretions, and after birth there is some, albeit controversial, evidence for transmission via breast milk. It is difficult to distinguish between infection before birth and infection during birth itself since, even if the child is unaffected, it may carry maternal antibodies for time after being born. These make it difficult to determine the child's own antibody status (Aggleton, et al., 1989:41).

Babies born to HIV-positive mothers are usually born with HIV antibodies, irrespective of whether or not they are infected with the virus. These antibodies come from the mother. If the child does not actually have HIV, these antibodies clear out of the body over a period of time. This means that an HIV antibody test is not considered accurate to the first 18 months after birth. However, the more expensive tests, which check directly for the virus, are accurate and

can be used a few weeks after birth (World Health Organisation (WHO) - Fact Sheet 1, 2000a: 2).

The transmission of HIV from an infected patient to an uninfected health-care worker is possible if the health-care worker accidentally cuts himself or herself during surgery or sticks himself or herself with a needle that contains infected blood from the patient. This kind of on the job exposure to HIV is known as occupational exposure (Ward, 1999: 46).

Gordan and Klonda (1988: 15) argue that it is not easy to become infected with HIV. HIV cannot enter the body through the air in the same way as measles. Whiteside and Sunter (2000: 10) also maintain that HIV is hard to transmit. They say in order for a person to be infected, the virus has to enter the body in sufficient quantities. Gordan and Klonda (1988) continue to say that although HIV has been found in many body fluids, it is only infectious in blood, semen and vaginal secretions. HIV from an infected person must enter the white cells of another person in order to survive. HIV can only enter another person when the blood, semen or vaginal secretions of an infected person come into contact with the blood or mucous membranes of another person. The outside of the human body is covered with a thick skin, which keeps out HIV as long as there are no cuts or sores in it.

Evian (2000:18) says that there is no good evidence that HIV is spread through normal, everyday, casual contact between individuals. HIV is not stable and does not survive for long periods outside the human body. Evian (2000:18) continues to say that the virus cannot penetrate normal intact skin and does not readily enter through a healthy mouth or eye. The virus is also not present in high enough quantities in the saliva and urine to cause infection (Van Dyk, 2001:33; Fact Sheet-HIV/AIDS CDC-NCHSTP, 2001: 2-4). A person with a healthy genital tract is less likely to acquire HIV than a person with genital disease such as sexually transmitted diseases (STI).

According to Aggleton, et al. (1989: 42), transmission studies strongly suggest that HIV cannot be transmitted via the following routes: touch, bodily contact, coughing and sneezing, cups, cutlery and food, swimming pools, drinking from same glass, towels, toilet seats, pets, mosquitoes and other insects, sharing baths and showers. Lachman (1989: 23) adds that AIDS is not transmitted through the upper gastrointestinal tract or through the respiratory tract.

Wilson, et al. (2002:61) mentions that HIV is not transmitted through normal household contact including kissing and HIV cannot survive in the environment.

The modes of transmission are well documented above. It is however very important to know what factors can predispose or put people at risk of HIV transmission.

6.1. Risk factors regarding HIV transmission

Van Dyk (2001:16) mentions that different people (for reasons as yet not fully understood) respond differently to HIV infection. Some people remain healthy and active for as long as 10 to 20 years with little or no signs of immune depression, while other people deteriorate rapidly and develop full-blown AIDS within five years, or even sooner. There are many known reasons why HIV infection may progress more rapidly in some individuals than in others. Some of the reasons why people respond differently are: there are different strains of HIV (some are more virulent or active); when people are infected, they receive different dosages of the virus (larger or smaller dosages); different human bodies respond differently to the virus, and the general health status of the person concerned affects the course of the disease.

6.1.1. Biological and sexual risk factors

Ward (1999: 38) identifies factors that may alter an individual's susceptibility and HIV's infectiousness. He further mentions that the presence of either acute HIV infection or advanced HIV disease (AIDS) in the infected partner increases the risk of sexual transmission. Although individuals with asymptomatic disease are also infectious to others, people recently infected temporarily have very high levels of virus in their blood and body fluid and secretions, as do people with advanced disease, which makes them relatively more infectious to their partners. Ward (1999: 38-40) also says that the presence of genital tract infections in either partner also increases risk. The risk of transmission markedly increases if yeast infection or genital sores or ulcers are present.

According to Ward (1999:39) STDs that do not produce ulcers, such as gonorrhoea, chlamydia, and trichomoniasis, increase the risk of acquiring HIV. This is thought to occur because these diseases cause inflammation of the mucous membranes of the genital tract. In the HIV-infected partner this increases the amount of free virus and the number of virus infected cells in genital secretions. In the HIV negative partner the risk of acquiring HIV infection is increased because

the inflammation of the genital tract concentrates cells susceptible to HIV infection in the genital tissues.

As mentioned previously, anal intercourse and, probably, intercourse during menstruation also increase the risk of sexual transmission. Anal intercourse easily causes tear in the rectal lining that result in direct contact between infected semen and the blood of the receptive partner. Number of instances of intercourse is also related to risk. The greater the number of exposures to infected semen or vaginal secretions, the higher the risk of HIV transmission (Ward, 1999:40).

Genetic characteristics of the particular HIV strain to which a person is exposed, as well as genetic characteristics of the exposed person, affect the risk of HIV transmission. Very small percentages of individuals have remained uninfected despite repeated exposure to HIV. It is now believed that certain individuals have genetically determined natural resistance to HIV. Some strains to HIV appear to be more infectious than others. It has been speculated that some HIV subtypes might be more infectious than others through vaginal intercourse (Ward, 1999: 38-40).

Ward (1999: 19 -24) points to some studies, which have suggested that, the use of oral contraceptives, diaphragms, cervical caps, or intrauterine devices (IUDs) increases the risk of HIV transmission. This is difficult to determine because people who use these modes of contraception may be less likely to also use condoms during intercourse. A risk of HIV transmission exists even during safer sex, minimizing this risk requires that condoms be used consistently and correctly.

Berer and Ray (1993: 44-45) demonstrate what it means by the risk of HIV infection. They maintain that the transmission of HIV through sexual intercourse, blood and pregnancy are inter-connected events. They say talking about HIV transmission means talking about risk. No definitive statements can be made that are true for everyone. People may or may not realize or admit to themselves that they are at risk of HIV infection. People with HIV may not know they have it or that they are putting others at risk. The overwhelming majorities of people with HIV never intend or want to infect other people, just as no one wants to become infected.

Being exposed to HIV does not necessarily mean being infected. However, the vast majority of people are at risk through the main routes of transmission. With all forms of exposure, although the relative risk differs, one exposure can lead to infection and each repeated exposure carries the same risk. In general, the more viruses per exposure and the more times a person is exposed, the likely it is that infection will occur. Multiple exposures increase the risk; re-infection through continuing exposure after infection also occurs and may contribute to disease progression (Berer & Ray 1993: 44-45).

Infection of a woman by a man is biologically more likely than infection of a man by a woman, that is, per exposure and if other risk factors are equal. If men generally have more sexual partners than women, then infected men will expose more women, to HIV than vice versa.

Women are getting HIV infection at a younger age than men all over the world, in line with socio-sexual norms. This fact is easily overlooked if gender and social factors are not taken into account. Women also tend to have sexual relationships with men a few years older than themselves, whether inside or outside of marriage. In some cultures, men marry women up to ten years younger than themselves for childbearing and other patriarchal reasons. This notion is supported by Poku (2001:197).

Poku (2001:197) further says this is not a surprise in Africa if one keeps track of teenage pregnancies. She continues to say that older men also select young girls for sex because the girls were perceived to be clean. They are unlikely infected with HIV or STDs.

Poku (2001:197) asserts that, this is confirmed by ongoing studies in Botswana and Zambia. Married men often have extra-marital relations with younger women. In polygamous marriages, second and third wives are often much younger than the husband (Berer & Ray, 1993: 44-45).

In such relationship, the men have had more chance to be exposed to HIV, both because they are older and because they likely to have had more sexual relationships. Their women partners are then more likely to be exposed at an earlier age. A particular area of concern in this respect is that some men have begun to look for younger partners in the hope that they will un-infected. They feel that they will avoid infection themselves if they only sleep with virgins, who will inevitable be much younger than them (Berer & Ray, 1993: 44-45).

Evian (2000:17) says that a person is most likely to pass on the HIV virus during the following phases:

- Soon after becoming infected with the HIV virus (in the first 4 – 8 weeks)
- When there is a high HIV viral load
- During the later phase of the infection, when symptoms of HIV infection/AIDS appear.

Wilson, et al. (2002:63) concluded that unprotected anal intercourse and unprotected vaginal intercourse put people at high risk of HIV transmission. They also argue that the disruption of the genital tract epithelium by intravaginal spermicides, herbal agents used for 'dry sex', and violent sex especially rape and gang rape, facilitate the increased transmission of HIV from men to women. It is also said that when a man is not circumcised, the foreskin contains large numbers of dendritic cells that are exposed to genital fluids during sexual intercourse and therefore he becomes easily exposed to HIV and transmission can easily happen. It is also believed that when a couple has sex during menstruation, the transmission of HIV from women to men is facilitated.

According to Wilson, et al. (2002:61), the majority of individuals infected with HIV in sub-Saharan Africa get infected with HIV heterosexually. Although homosexual transmission of HIV remains an important cause of infection among gay and bisexual men and intravenous drug use is also likely to cause HIV infection in the next decade.

Women seem to be the group highest at risk of HIV infection because of their biological makeup and their traditional status in the society. They become sexually active also at a young age.

6.1.2. Socio-economic risk factors

According to Popenoe (1986:252) poverty is a condition of scarcity or deprivation of material desirables. It is a condition characterized by a lack of adequate consumption of the necessities of life. It is also viewed as a stigmatized position of social inferiority. The physical appearance of poor people often makes their stigma highly visible e.g. their deteriorated housing, ragged clothing and emaciated faces. According to Popenoe (1986:252) historically the poor have been people without homes. They wander from community to community in search of work and sustenance.

Wilson, et al. (2002:10) postulated that there is clear evidence of a link between poverty and almost any epidemic. Poverty contributes to the spread of HIV because of social and economic factors.

Webster (1991:18-20) and Van Niekerk (2001:146) argue that poverty with its accompanying side effects such as prostitution (the need to sell sex for survival), poor living conditions, poor education, poor health care are major contributing factors to the current spread of HIV/AIDS.

Poku (2001:195-196) adds that poverty is associated with weak endowments of human and financial resources, such as low levels of education, low levels of literacy and few marketable skills. She says that generally poor health status and low labour productivity are also associated with poverty. The poor health status of Africans coexist with undiagnosed and untreated sexually transmitted diseases (STD'S) which are now recognized as a significant co-factor in the transmission of HIV.

She further mentions two examples of this state of affairs, which will perhaps indicate how poverty leads to outcomes, which expose the poor to HIV. First, poverty especially in rural areas and the absence of access to sustainable livelihoods are factors in labour mobility. Mobile populations which often consist of large numbers of young men and women are isolated from traditional cultural and social networks and in the new conditions will often engage in risky sexual behaviours, with obvious consequences in terms of HIV infection.

The case of South Africa is a good example of the relationship between poverty and HIV. Throughout the past century, men from around the Southern African region were drawn or conscripted to work in South African gold and diamond mines. They left their families behind in rural villages, lived in squalid all-male labour camps and returned home maybe once a year. Lack of education and recreation, forced them to rely on home brewed alcohol and sex for leisure. Men who made his living deep inside a South African gold mine had a one in 40 chance of being crushed by falling rock. So the delayed risks of HIV seem comparatively remote (Poku, 2001:195-196).

According to Evian (2000:21) AIDS like other sexually transmitted diseases are often more common in lower socio economic countries. He gives the following as reasons why low socio economic conditions promote the spread of sexually transmitted diseases:

- In many communities women have very little control over their sexual lives, and the ways to prevent STDs. Women are often exploited and have more inferior status than men. Poverty often makes this sexual exploitation worse, and this further contributes to the spread of sexually transmitted diseases.
- High unemployment promotes migrant work and family disruption. People leave their homes and therefore their loved ones, friends, familiar surroundings and local community life. In the far-away places, migrants often find themselves in lonely, unfavourable, hostile or alienating environments. There is a natural need for sex and intimacy resulting in multiple-partner sexual relationships.
- Women are often forced to sell sex to earn precious money for food and basic needs, and to help raise their children. Young girls may sell sex to older men.
- People in poor living conditions often do not have easy access to health care services. Sexually transmitted diseases often go untreated and spread more easily.
- Poor education and low literacy levels help to keep people ignorant of the ways and means to avoid diseases like AIDS.
- Crime and violence is also common in cities and town, and these further stress family and community life.
- Many of the problems described above are also result in the breakdown of the usual traditions, customs, beliefs and cultural practices in a community. These practices usually determine the accepted sexual behaviour and constraints in a society. When these are broken down, it often results in multiple sexual partners and indiscriminate sexual behaviour.

The links between poverty and health are increasingly recognized and understood. It is not clear that AIDS is simply a disease of poverty, although poverty undoubtedly helps drive the epidemic. In early stages AIDS appears to infect the relatively well off. They have the disposable incomes that allow them to travel and, in the case of men, purchase sex. Of course more poor people are infected. It is likely that as the epidemic evolves, they may be proportionately worse affected. It is predicted that AIDS will increase poverty and inequality, but nobody has measured this (Whiteside and Sunter, 2000: 91-92).

It seems therefore as if HIV spreads fastest in conditions of poverty.

6.1.3. Mother to child transmission (MTCT) and breastfeeding as

risk factors

According to Wilson, et al. (2002:358) mother to child transmission of HIV (MTCT) is the major cause of HIV infection in children. There are more than 2 million pregnancies in HIV positive women each year, and more than 1800 infected children are born daily worldwide. The overwhelming majority of these births are in the developing world, especially in Sub-Saharan Africa. In several African countries, more than 30% of women attending antenatal clinics are HIV Positive. In South Africa, upwards of 250 000 HIV –positive women will become pregnant each year and, in the absence of prevention interventions, more than 70 000 of their children will be infected.

According to Evian (2000:213) there are numerous ways to prevent the transmission of HIV from mother to child during pregnancy and childbirth. These ways can be implemented during antenatal and labour phases and post delivery.

Evian (2000: 215) continues to say that any new HIV infection during pregnancy and breast-feeding is likely to result in an increase in the HIV viraemia. This is considered to increase the likelihood of MTCT. For this reason pregnant mothers must be informed of this risk and educated on safer sexual practices. It is especially important for them to use condoms if their partner is HIV infected, or if his HIV status is unknown.

Programmes to prevent mother-to-child-transmission (PMTCT) of HIV have been conducted in many countries including Ivory Coast, South Africa, Thailand and Botswana. These programmes have succeeded in reducing the number of HIV infections in babies born of HIV-positive women. MTCT programmes include counseling, testing and the provision of antiretroviral during birth as well as formula feeding or a 6-month period of exclusive breastfeeding to reduce the transmission of HIV through breast milk. (Mixing breast milk with other feeds may increase the risk of transmission). Counseling on feeding options should be provided to allow women to make informed choices (Soul City- Know the Facts, 2002; Evian, 2000:220-221).

Nevirapine has been shown to be both safe and effective. Thousands of women and children have gone through MTCT prevention programmes using Nevirapine. Studies have been conducted into this in South Africa and other countries and no serious side- effects have been reported (Soul City- Know the Facts, 2002; Evian, 2000:217). A study in Uganda, known as

HIVNET 012, showed that the risk of transmission of HIV from mother to child could be reduced about 47% by using Nevirapine (Soul City- Know the Facts, 2002).

A seminal clinical trial that was conducted in 1994 (Soul City- Know the Facts, 2002) revealed that azidothymidine (AZT) given orally to pregnant women for several weeks prior to delivery, intravenously during delivery, and orally to the newborns for six weeks could reduce perinatal transmission by two-thirds. A strong correlation was later found between levels of free virus in the mother's blood (mother's viral load) and perinatal transmission. The research suggested that AZT help prevent transmission by reducing the amount of free virus in the mother's blood prior to delivery. The research also pointed out that there is a possibility that mothers with a low viral load can transmit HIV to their infants. Wilson, et al. (2002:364) supported the use of AZT.

The mother's immune status (a low CD4 count) was associated with an increased risk of perinatal transmission. The exposure of the infant's mucosal membranes to maternal blood during delivery was also seen as contributing to the transmission of HIV (World Health Organisation [WHO] - Fact Sheet 1,2000a: 2; Evian, 2000:213).

Prolonged period between the time the mother's water breaks and the time of delivery and presence of uncerations in the mother caused by sexually transmitted infections were reported to transmit HIV (Soul City- Know the Facts, 2002, Wilson, et al. 2002:364; Evian, 2000:218).

Vitamin A deficiency in pregnant women in Africa appears to increase the risk of perinatal transmission. However, it is not known yet whether supplements of vitamin A reduce this risk (Soul City- Know the Facts, 2002; Evian, 2000:215).

Some studies also suggest that vaginal deliveries especially with episiotomy increases the risk of transmission, but this has not been conclusively shown, and cesarean section are not recommended as means of reducing the risk of HIV transmission (Ward, 1999: 46; Wilson, et al., 2002:364; Evian, 2000:219).

It is evident from the above discussion that the risks of mother to child transmission are very high therefore the efforts to prevent mother to child transmission should be taken seriously. The following section will focus specifically on the relationship between HIV transmission and feeding choices.

In 1985 transmission of HIV through breastfeeding was first described in women newly infected via blood transfusion or heterosexual exposure after delivery. It has been estimated that breastfeeding by women with established infection increases the rate of transmission by 14%. The risk of transmission may increase to 29% for the mother who acquires the infection during the breastfeeding period (Wilson, 2002:296).

All pregnant women need to decide how they are going to feed their babies, prepare for feeding, and feed safely, within an hour of delivery. Deciding how to feed a baby is especially important for an HIV-positive mother, as this can influence HIV transmission to her baby. It is really important that the mother makes the right decision for herself, and also for her baby (Wilson, 2002:295).

According to Evian (2000:221) MTCT is more likely during the acute HIV infection period. For example, within the first few weeks after a new HIV infection and if there are symptoms of AIDS.

He also says MTCT is more likely if there is a high HIV viral load in the mother and if there is immune-deficiency (signs of opportunistic diseases or a low CD4 cell count.)

Evian (2002:299) lists the advantage of breast milk substitutes, as there is no risk of HIV transmission and no other infections maybe transmitted. He also says that the benefits of breastfeeding are that breast milk provides perfectly for the infant's nutritional needs, this is particularly important in HIV – infection. Breast milk is easily digested and used by the body. There are debates regarding whether babies who are breast fed by HIV positive mothers are more at risk than babies who are formula fed or bottle-fed by HIV positive mothers. It is evident that breast milk contains substances, which protect the baby from many infections and so provides him with extra immunity while he/she builds up his/her own immune system. This additional immunity is particularly important for the baby of an HIV infected mother. The good nutrition provided by breast milk also builds up the immune system (Gordan & Klonda, 1988: 28-29; Wilson, et al., 2002:298-299; Van Dyk, 2001:29).

Wilson (2002:298) says that the viral load in the mother, mastitis and cracked nipples, oral thrush in the infant, and HIV infection of the mother during breastfeeding increase the risk of

breastfeeding transmission. Small amounts of HIV are sometimes found in breast milk (Gordan & Klonda, 1988: 29).

Gordan and Klonda (1988: 28-29), Evian (2000: 223), Van Dyk (2001:30) and Wilson, et al. (2002:299) believe that bottle-feeding/formula feeding on the other hand can introduce many germs into the baby and this often leads to infection. This is particularly serious for an HIV infected baby, as its immune system is so weak that infections are hard to fight. Many bottle-fed babies also become malnourished when mothers cannot afford to make the mixes to the correct strength (and waste valuable money on purchasing the milk in the first place) and this weakens the immune system still further.

Wilson, et al. (2002:296) said that there are feeding choices that mothers can choose from. For example, breast milk or breast milk substitutes such as commercial formulas, modified cow's milk and dried milk powder.

Evian (2000:222) says that the risks of the different methods need to be balanced. He says that if infants of HIV positive mothers can be safely and adequately fed with a breast milk substitute, then the risk of MTCT will be reduced. This is clearly the most ideal and favoured method for feeding infants of HIV positive mothers. In communities where there is a high local infant mortality rate, substituting breast milk feeding may place the infant at risk from disease, eg. malnutrition, gastro-enteritis and other infective conditions. .

The extent to which the HIV antibodies found in breast milk protect the baby from HIV infection, but other antibodies in breast milk certainly protect against the many other infections to which any baby (including one infected with HIV) is exposed.

Gordan and Klonda (1988: 29), Evian (2001:224), Van Dyk (2001:29-30) and Wilson, et al. (2002:300) therefore, suggest that mothers should continue to breast-feed their babies if the mother does not want to formula feed or she is not in a social or economically supportive environment to allow her to safely and adequately formula feed whether they have HIV infection or not.

On the other hand breast milk can also transmit HIV, which is found in both the cells present and the liquid portion of the milk. The risk of transmissions is believed to be highest during periods of high viral load in the mother, that is, during acute HIV infection and during advanced HIV disease, or AIDS (Gordan and Klonda, 1988: 29; Evian, 2000:221 and Wilson, et al. 2002:296-298).

There seems to be lack of understanding that breast milk has HIV and therefore HIV can transmit through breast-feeding. Many people are also unaware of the range of different times when HIV could be transmitted although they seem to understand that a pregnant mother could infect her baby (Tlou, Nyblade, Kidd, Field, Rantona & Sentumo, 2000).

It is therefore critically important for health care workers to assess every mother and her social and economic situation now and in the short-term future. This should be done before advising her on the most appropriate and suitable method for feeding her infant (Evian, 2000:222).

Wilson (2002:295) says that in the developing countries, breastfeeding should remain the standard recommendation for all women, as the advantages outweigh the increase risk of HIV transmission and women known to be HIV- positive should be advised not to breastfeed. Child care practitioners consider breastfeeding of such critical importance to the general health of the infant as well as the mother-infant relationship that special efforts should be made to retain this practice, even during the HIV pandemic (Wilson, 2002:295).

Traditional African mothers face serious challenges with the concepts of exclusive breastfeeding and formula feeding. A traditional African woman is expected by society to breast feed the baby and in African communities it is very common that women are instructed by the elderly to feed the baby because the breast milk is not enough to satisfy the baby's hunger. If the mother opts for breast- feeding, she will be pressurized to feed the baby or other caregivers in the family will feed the baby. Traditionally a family member who is an elderly person in the family after delivery must assist a woman. If the mother insists to breast feed only, she will have to give explanations why she is not feeding the child. Formula feeding is also a challenge given the poverty situation in most communities where there is no running water and electricity. Prevention of mother to child transmission after birth is a very difficult situation to control. The communities need to be educated about these risks in order to prevent the mother to child transmission.

6.1.4. Mental illness as a risk factor

Severe mental illness is a risk factor in the context of HIV/AIDS. According to Shaw and Mahoney (2003:179) severe mental illness typically refers to persons with serious, persistent, and intermittent psychotic disorders, including schizophrenia, bipolar disorder, major

depression, and schizo-affective disabilities in daily living skills, social interactions, family relations, and jobs or education. Little was known about HIV/AIDS in people with severe mental illness until the early 1990s when a series of prevalence studies reported alarming rates of HIV infection, especially in people dually diagnosed with mental illness and substance abuse disorders (Shaw & Mahoney, 2003:179).

Shaw and Mahoney (2003: 180) continue to say that severe mental disorders produce disabling cognitive, emotional, and behavioral symptoms that greatly increase the potential for HIV infection. For example, schizophrenia has a devastating impact on cognitive functioning that results in limited insight. Persons with schizophrenia frequently lack insight into their psychiatric symptoms and comprehension of their own risk for HIV/AIDS. This lack of insight also makes them much less likely to use precautions with sex or needles. Mania phases of bipolar disease, on the other hand, are characterized by impulsivity, lack of judgment, reckless behavior, and increased sexual activity. Hopelessness associated with major depression results in lack of self-care, non-compliance with treatment, and a high risk for substance abuse. Because apathy is a characteristic that accompanies severe mental illness, persons frequently lack the motivation to make the necessary behavioral changes that reduce HIV risk.

Shaw and Mahoney (2003:181) argue that the HIV virus is neurotropic; it crosses the blood brain barrier and enters the central nervous system shortly after infection. CNS manifestations resulting from HIV infection include HIV related dementia, psychotic disorders, CNS opportunistic infections and tumors, mood disorders and delirium. Persons without a previous history of mental illness may develop psychiatric symptoms as result of these HIV related disorders.

7. Stages of HIV infection and signs and symptoms of HIV/AIDS

Wilson, et al. (2002:48) says that the response to HIV infection varies widely between individuals, ranging from a severe sero-conversion illness with rapid progression to immune failure and death to asymptomatic infection with essentially normal immune function (the long-term non-progressor).

Wilson, et al. (2002:51) illustrates the central role of HIV viral load in disease progression and transmission. They say that there are rapid progressors, intermediate progressors and slow progressors or long-term non-progressors.

According to them rapid progressors are a small proportion of individuals who develop AIDS within one to two years following HIV infection. This phase is associated with high levels of viral replication and a precipitous decline in CD4 numbers. Most of these individuals are unable to mount an effective immune response because of the depletion of CD4 cell and are not able to control viral replication. The intermediate progressors are the majority of HIV – infected individuals who are able to regulate viral replication for many years because of an effective immune response. However, over time there is a steady decline of CD4 T-Cell numbers and a slow erosion and eventual destruction of the immune system.

Slow progressors or long-term non-progressors are a small proportion of individuals who are able to control HIV viral load very effectively without the assistance of anti retroviral therapy (ART). Long-term non-progressors have low, and in many cases undetectable, plasma viral loads, with high CD4 counts and robust immune systems. Many such individuals have been infected for more than 20 years. The reasons for slow disease progression appear to be multiple.

Crewe and Orkin (1992:4) say that the asymptomatic phase is a phase when the infected person might not know that they are infected, they are nevertheless infectious to other people. This is one of the most terrifying features of the disease, which makes it so difficult to control. One can be infected, shown no symptoms and yet be infectious at the same time. HIV has a dormancy period of up to ten years before it manifests itself.

Evian (2000:25) says that a person who becomes infected with HIV will usually go through various clinical stages that occur over a long period of time, usually 5-12 years.

There are however conflicting opinions as to the different stages in the progression of the disease. The first symptoms of AIDS usually start manifesting themselves after 28 months, however this can vary between 6 months and 6 years. Stages of HIV infection according Crewe and Orkin (1992: 5); Wilson, et al. (2002:57); Evian (2000:25) & WHO - World Health Organisation Staging System in Evian (2000:116) can be displayed as shown in Table1.

Table 1: Stages of HIV infection

Appropriate Time	Symptom	Phase
12 weeks	Development of anti-bodies	-Sera-conversion -Symptomatic Infection
12 weeks- 7 years	Less than 10% weight loss	HIV well-mild disease episodes
7-10 years	Chronic fatigue, fever and night sweats, serious forms of herpes, thrush, more than 10% weight loss, swelling of lymph glands, diarrhoea, deterioration of central nervous system (in some cases)	HIV disease. Severe illness (Symptomatic)
10-15 years	Opportunistic infection For example: Extra pulmonary TB	AIDS Patient is dying

According to Barrett-Grant, et al. (2001:22-23) there are 5 stages of the HIV/AIDS disease.

They are the following:

- Primary HIV infection
- The asymptomatic or 'silent' disease
- Early HIV symptomatic disease
- Medium-stage HIV Symptomatic disease.
- Late-stage HIV symptomatic disease (AIDS)

7.1. Stage1: Primary HIV infection

This happens within a few weeks after HIV infection and is the time when people sero-convert on their blood test for HIV – in other words, change from being HIV negative to HIV positive. About half of people infected will develop a flu-like illness with fever, sore throat, swollen glands, headache, muscle aches and sometimes a rash. This stage of HIV infection lasts only a week or two – after this, the person will return to feeling and looking completely well.

Evian (2000:28) says that during the sero-conversion illness usually the signs and symptoms are non-specific. It often passes unnoticed by the patient. The HIV antibody test usually becomes positive 4 – 6 weeks after infection. This phase is often called the clinically latent or 'silent' phase of HIV infection.

7. 2. Stage 2: The asymptomatic or silent stage

After recovery from the primary HIV illness, people infected with HIV continue to be completely well for long periods, often for many years. During this time, the only indication that you are infected with HIV is that you will test positive on standard HIV tests and you may have swollen lymph glands. This means that you look and feel healthy and can easily infect other people through unprotected sex – especially if you do not know that you are infected. But HIV is still very active and is continuing to destroy the immune system during this stage.

Evian (2000:29) says that the asymptomatic phase is usually associated with a CD4 cell count between 5000 and 800 cells/mm³ or even less. The phase may last between 3 and 7 years (even up to 10 years) however though the infection is clinically 'silent', the virus is active in the body, usually causing progressive damage to the immune system. The person is able to spread the virus during this phase.

7.3. Stage 3: Early HIV symptomatic stage

According to Evian (2000:30) this stage is between 3 and 7 years after infection and some individuals may develop minor symptoms and signs secondary to the HIV infection. The minor symptomatic phase is usually associated with a CD4 cell count between 350 and 500 cells/mm³ with the following symptoms:

- Shingles
- Mouth ulcers
- Chest infections
- Weight loss
- Herpes zoster
- Occasional fevers
- Skin rashes, such as folliculitis, dermatitis and chronic itchy skin
- Fungal nail infections

7.4. Stage 4: Medium –stage HIV symptomatic

Evian (2000:30 – 31) stated that this stage takes place between 5 – 8 years following HIV infection. The viral load tends to increase progressively, and the immune system continues to deteriorate and become immune-deficient. Signs of more severe HIV-related disease begin to appear.

These signs and symptoms are usually due to overgrowth of some of the body's natural flora with fungal infection and reactivation of old infection (such as TB and herpes). They are also due to uncontrolled multiplication of HIV itself. Later as the immune-deficiency progresses, more frequent and severe opportunistic infections occur. This stage of HIV disease was previously called 'AIDS-related complex' (ARC).

The symptomatic phase is usually associated with a CD4 cell count between 150 and 350 cells/mm³

The most common signs and symptoms of this stage of the HIV-related disease are as follows:

- Oral vaginal candida infection (thrush) – this usually persistent and recurrent
- Hairy leukoplakia on the tongue
- Recurrent herpes simplex infection – cold sores or genital herpes infection
- Herpes zoster (shingles)
- Acne – like bacterial skin infections
- Persistent and unexplained fevers and night sweats
- Skin rashes
- Generalised lymphadenopathy or shrinking or previously enlarged lymph nodes

- Persistent diarrhoea
- Weight loss (more than 10% of usual body weight)
- Reactivation of tuberculosis may also be associated with this stage of infection, especially in people from low socio-economic communities, where tuberculosis is common (endemic)

7.5. Stage 5: Late-stage HIV disease (AIDS)

Without effective treatment, the long-term damage caused to the immune system by HIV results in severe opportunistic infections, cancers and HIV related damage to other organs (e.g. the brain). This stage is usually called AIDS.

According to Evian (2000:31) AIDS is almost always associated with a high HIV viral load and severe immune-deficiency. This usually corresponds to CD4 cell counts below 200 cell / mm³ and to a low lymphocyte count. This allows the development of severe opportunistic infections.

People with severe HIV disease can experience many illnesses at the same time. Many of these infections can be prevented with antibiotic treatment if a person will be tested and become aware of his/her HIV status at an earlier stage. These AIDS-defining illnesses include:

- Severe pneumonia
- Confusion and memory loss
- Pain and difficulty in swallowing
- Severe diarrhoea
- Brain infections
- Severe skin rashes
- Severe weight loss

Evian (2000:32) identified the following signs and symptoms of AIDS defining illness:

- Herpes, seborrhoeic dermatitis, skin sepsis may present with a variety of skin rashes and skin conditions
- Respiratory infection usually presents with persistent cough, chest pain and fever.
- Candidiasis presents with oral and / or genital thrush

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- Infection of the bowel will present with ongoing diarrhea
- Infection of the brain will present with headache, fits and other neurological conditions
- Cancers, such as Kaposi's sarcoma, appear as redish, purple spots on the skin and mucous membranes that increase in size and number. Lymphoma may present with enlarged lymph nodes liver or spleen
- People with AIDS usually experience tiredness, fatigue and weakness.
- Occasionally there may be some memory and concentration loss, and some people may eventually develop severe mental deterioration and confusion.

Adding to the above signs and symptoms Berer and Ray (1993: 17-18) list the following signs and symptoms of HIV/AIDS, which are likely to manifest in women specifically.

- Unexplained enlarged or swollen lymph glands in the neck, armpit or groin for than three months, felt as painless lumps (generalized lymphadenopathy)
- Chronic or severe tiredness, lack of energy, and general weakness.
- Unexplained weight loss of more than 10 per cent of body weight. Women have generally more body fat than men, so weight loss may be ignored or misinterpreted as something desirable in women in some cultures.
- Unexplained fever lasting more than one month, chills and night sweats.
- Itchy skin or skin rash
- Infections of the skin - fungal, bacterial or parasitic
- Muscle and joint pains
- A viral infection on the tongue, which appears as whit marks (oral hairy leukoplakia). This may come and go and is not thought to be infectious. It is very rare i.e. except with HIV.
- Loss of appetite, nausea and vomiting
- Shingles (herpes zoster virus). Shingles is a recurrence of childhood chicken pox and is very infectious. It used to be seen mainly on elderly people and sometimes in those with other illnesses that cause immune deficiency.

Many women with HIV have reported changes in menstrual patterns, most commonly irregularity of periods. A controlled study in Uganda found loss of periods and possible lower fertility (Berer & Ray, 1993: 18).

It is evident from the above discussion that one can remain without HIV/AIDS symptoms while infected for a very long time. During this time the person is infectious (can infect others). The symptoms are also common symptoms of other diseases that are not related to HIV/AIDS. It is therefore very important for people to be tested in order to know their status so that they are able to protect themselves and access treatment if they need it.

The following section will therefore focus on how one goes about to know his/ her status.

8. Counselling and testing of HIV/AIDS (VCT)

According to SAFAIDS (2002:1) the World Health Organization (WHO) defines voluntary counselling and testing (henceforth named VCT) as a confidential dialogue between a client and a care provider aimed at enabling the client to cope with stress and take personal decisions related to HIV. People affected by HIV want counselling and testing services for future planning (including planning for marriage and children), emotional support, medical services, and other referral services.

Wilson, et al. (2002:70) argue that a person who has tested HIV positive may never have the same quality of life again. HIV positive individuals who have had positive and helpful experiences at the time of testing deal with their situations more satisfactorily and are better able to talk about their fears and feelings and to plan for their future. Therefore HIV counselling before testing is very important.

8.1. Voluntary counselling and Testing (VCT)

For many patients the only evidence of HIV infection is a positive HIV test. For other patients signs and symptoms of AIDS or immune – deficiency make the chances of HIV infection more probable (Evian, 2000:39).

Evian (2000:39) is of the opinion that testing is normally done if there are clinical signs suggestive of HIV infection or when there are other clinical indications, such as tuberculosis (TB) or sexually transmitted diseases (STDs). There are also other reasons for HIV testing, e.g. life insurance policies, as part of the blood donating screening process, post-needle stick injuries, etc.

Although there are many benefits to knowing one's HIV status, testing may have negative consequences in communities where HIV-infected people are stigmatized. No one should be coerced into being tested. The decision to undergo HIV testing should be entirely voluntary. Given the possibility of discrimination, ostracism and personal recrimination that an individual diagnosed with HIV may face, it is important that confidentiality be guaranteed. As such VCT services require continued comprehensive evaluation to help adapt the services in response to evolving knowledge, client needs and technology.

In the World Health Organisation (WHO) – Fact Sheet 1 (2000a: 5) it is stated that all people taking an HIV test must give informed consent before being tested. The result of the test must be kept absolutely confidential. However, shared confidentiality is encouraged. Shared confidentiality refers to confidentiality that is shared with others. These others might include family members, loved ones, care givers, and trusted friends. This shared confidentiality is at the discretion of the person who will be tested. Although the result of the HIV test should be kept confidential, other professionals such as counselors and health and social service workers, might also need to be aware of the person's HIV status in order to provide appropriate care.

Evian (2000:39) postulates that HIV testing should be done in a proper and ethical manner. He says that before HIV testing is done, pre-and post-test counseling must always be offered to the patient. It is important for the patient to understand the reason for the HIV test, the nature of the test, the meaning of an HIV test, the meaning of HIV positive and negative results, the possible psychosocial implication of the results and a follow-up plan.

Evian (2000:50), Van Dyk (2001:238) and Wilson, et al. (2002:9) agree that there are reasons why counseling may be important e.g. many relationships have broken up due to one partner being HIV positive, people have lost their jobs and have even been rejected by their friends and family, feelings of depression, anger and guilt may result. Some people have even committed suicide after receiving their HIV test results. This means that everyone who has an HIV test must be properly counselled before the test is done (a pre-test counsel or interview) as well as after the test (post-test counsel or interview).

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The SAFAIDS (2002:3) emphasizes that VCT-knowledge is power. Communities affected by HIV/AIDS, benefit from VCT as it contributes in the following ways:

- It changes the image of HIV/AIDS from the illness, suffering and death to living positively with HIV.
- It generates optimism as large number of persons tests HIV negative.
- It reduces stigma and enhances the development of care and support services
- It reduces transmission
- It enables access to preventive prophylaxis and antiretroviral therapy where available, and access to needed clinical services (antenatal clinics, STI and TB clinics, primary care clinics).

VCT also helps couples and families benefit in the following ways:

- It enables planning for the future (marriage, pregnancy, relationships, orphan care, financial and property arrangements).
- It enhances faithfulness
- It encourages family planning.

Individuals benefit from VCT as it:

- Empowers the uninfected persons to protect themselves from HIV
- VCT assists infected persons to protect others and live positively

According to SAFAIDS (2002:1) and Wilson, et al. (2002:70) counselling has two main functions namely, prevention of HIV infection, as well as social and psychological support of those affected by HIV. In addition counselling reduces stigma in communities by talking about HIV/AIDS. Prevention counselling involves assessing risks, creating insight into risks among those at risk, and encouraging appropriate behaviour change and sustenance. Prevention takes the two forms of primary and secondary prevention. With the former, counseling works towards preventing infection among those who are not infected, whilst the latter is concerned with preventing onward transmission of HIV. Support for people diagnosed with HIV infection and HIV-related illness and those close to them involves both emotional and practical support. The uncertainty regarding onset of illness and other problems increase the stress experienced by the individual and the family and friends. (Compare also Barrett- Grant, et al., 2001:19; Van Dyk, 2001:238; Evian, 2002:53.)

A successful VCT programme according to SAFAIDS (2002: 1) must have the following components and characteristics:

- Information
- Risk assessment
- Development of a risk reduction plan
- Explanation of the meaning of HIV test
- Informed consent of HIV test
- Psychological support
- Emotional support
- Appropriate referral
- Confidentiality
- Personalized
- Empowering
- Enabling (facilitates the exercise of power, i.e. a women may be empowered to negotiate condom use, but condoms must be available if she is to exercise this new skill)
- How much does the testing protocol cost?
- Is the testing protocol the most appropriate according to given local conditions? If not, how can it be improved?

Wilson, et al. (2002:71) emphasized that the best counseling approach during pre-test counseling should be client centered, where the focus is on what the client is feeling and experiencing. Again in busy clinics this may be very difficult, but reasonable efforts should be made to ensure a private session free of interruptions, where confidentiality can be assured. The practitioner should be able to set aside adequate time.

Wilson, et al. (2002:73) add that post-test counseling helps clients to work through the crisis and other issues that may arise as a result of learning their HIV status.

In this context it is therefore also important to know more about HIV testing and the different types of HIV tests

8.2. HIV testing

Van Dyk (2001:240-241) postulates that it is important to explain the following points to the client before they take an HIV test:

- There is a difference between being ser-positive and having AIDS. The HIV antibody test is not a 'test for AIDS'. It indicates that a person has HIV antibodies in the blood and that the person is infected with HIV. It does not say when or how the infection occurred, or in what phase of infection the person is.
- The presence of HIV antibodies in the blood does not mean that the person is now immune to HIV. On the contrary, it means that he or she has been infected with HIV and that he or she can pass the virus on to others.
- The meaning of a positive and negative test result.
- The meaning of the concept 'window period' stresses the need for further testing if the person practices high-risk sexual behaviour and tests negative.
- The reliability of the testing procedures. A positive HIV antibody test result is always confirmed with a second test and reliability of test results is usually high. False-positive or false-negative results may however occasionally occur despite the general reliability of HIV tests
- The testing procedure. Explain how blood is drawn for the test, where it is sent, when the results will be available and how the person will be informed of the outcome.

8.3. Types of HIV tests

Different authors categorized the types of HIV tests differently. According to Evian (2000:40) the different types of HIV tests can be categorized as follows:

- **HIV antibody tests** are usually done on blood (serum). However it is possible to detect antibodies in other body fluids such as saliva and urine. It must be remembered that this is an HIV antibody test, and it does not detect the actual HIV virus. Antibody tests detect the presence of antibodies, which is the body's response to the HIV infection.
- **HIV antigen and HIV PCR tests** detect the actual HIV virus by picking up actual components of the HIV virus. Antigen tests are commonly known as HIV P24 antigen

tests. The p24 antigen test is often useful in certain clinical situations, but it lacks sensitivity. The antigen test become positive within the first 10-14 days after infection, and are most valuable for diagnosing infection early and for detection of newborn infection. A negative test in the first 2 weeks after infection may be false negative and should be repeated. In infants the tests are more reliable from approximately 1 month after birth (Evian, 2000: 40).

- **An HIV PCR RNA (polymerase chain reaction) test** can also be done. This can be a qualitative test (i.e. negative or positive result), or a quantitative test (i.e. number of viral RNA particles /ml of blood). This is also called the HIV viral load test.

These tests are not widely available and usually need sophisticated laboratories and are expensive (Barret-Grant, et al, 2001:20).

In a nutshell it seems as if the different types of HIV tests can be categorized in two broad categories namely screening tests and confirmatory tests for HIV.

8.3.1. Screening tests for HIV

According to Ward (1999: 19 -20) and Wilson, et al. (2002:38) the screening tests are used for detecting certain medical conditions in populations of people or in large collections of samples. The most popular test in this regard is the enzyme- linked immuno sorbent of the assay (ELISA test). The HIV ELISA tests reveal only the presence of antibodies. They do not directly detect HIV. But because antibodies are produced only in response to infection – not to mere exposure – a positive result on an ELISA test for HIV is a strong indication of HIV infection. It also requires verification with a confirmatory test. A person who is tested and found not to have antibodies to HIV is said to be seronegative for HIV (the prefix "sero" indicates "serum"). A person who tests positive is said to be seropositive for HIV.

Ward (1999: 19 -24) and Evian (2000:40) mention that there are other types of screening tests like the Oral Fluid test, the Home Urine test and the Home Specimen- Collection kits.

The **Oral Fluid test** sometimes called the saliva test, detects the antibodies found in oral mucosal transudate. This fluid is collected using an approved test pad that is placed between the cheek and gum. When done correctly, it is as accurate as the serum antibody test.

Home Urine tests: Low levels of HIV antibodies are also present in urine and therefore a urine test has been developed. An ELISA-type test is used for their detection. As with other HIV ELISA test, positive results must be verified by a Western blot or other confirmatory tests.

The Home Specimen-Collection kits were developed and approved by the food and drug administration (FDA) in 1996. Two kits were designed to allow the self-collection of blood samples, in the privacy of one's own home, to be mailed in for HIV testing under conditions that protect the user anonymity (Ward, 1999:24).

8.3.2. Confirmatory tests for HIV

A large number of serum samples from people in the general population that are reactive on first ELISA tests are not reactive when the test is repeated. If a sample does test positive a second time however the result must be verified by a confirmatory test. A confirmatory test is designed to distinguish a false-positive ELISA result from a true positive result. The following confirmatory tests are the most popular (Evian, 2000:42&49; Ward, 1999: 19-24).

Western Blot: The most common confirmatory test is the Western blot.

Like an ELISA, a Western blot uses HIV proteins to capture anti-HIV antibodies in blood serum. A Western blot has a much lower false-positive rate, because it uses HIV proteins that are separated into distinct groups, or bands. The ELISA tests with, if appropriate, a confirmatory test constitutes what is called the blood test for HIV. It is sometimes loosely – and wrongly – referred to as the AIDS test. This is incorrect because the blood test determines only whether a sample of blood serum contains antibodies to HIV. The presence of such antibodies indicate that the person who has been tested is infected by HIV, is capable of infecting others, and is likely to develop HIV disease.

Viral Genome Test: Another form of a confirmatory test is the Viral Genome Test for HIV, which measures the viral load in the blood. According to Ward (1999: 19 –27) several clinical trials in 1996 concluded that measuring “viral load” (the amount of free virus in the blood) is an earlier and more reliable predictor of future clinical course than measuring a change in the number of CD4 cells. Measuring changes in viral load now also helps physicians and patients determine when antiretroviral drug treatment should begin or to determine when there is viral resistance to anti-HIV treatment and also to decide whether to change treatment or not.

Methods that can detect virus in blood or lymphocytes include the polymerase chain reaction (PCR), quantitative competitive PCR (QC-PCR), and branched-chain DNA amplification (DNA). The last two methods also measure viral load (Ward, 1999: 19 –27; Evian, 2000:74).

The Polymerase Chain Reaction (PCR), which is also another form of a confirmatory test reveals the presence of specific segments of DNA in cells and other kinds of samples. The method is so sensitive that it can detect the presence of a single HIV pro-virus in 100.000 cells (the pro-virus is the DNA that HIV produces and inserts into the chromosomes of infected cells). PCR is the basis for extremely sensitive tests. This is also its drawback: PCR-based test must be done by scientists or experienced technicians using adequate controls and sterile technique, otherwise, contamination with target DNA can easily produce false – positive results (Ward, 1999: 27-29; Evian, 2000:40,46).

The PCR tests for HIV rather than HIV antibodies, and can be used to find HIV even when the sample of body fluid is very small. The PCR test is also useful for emergency situations like a sexual assault because you can test even a tin sample of semen or blood to see if the assaulter is living with HIV.

PCRs are however expensive (Barrett- Grant, et al., 2001:20).

8.4. Accuracy of HIV testing

Ward (1999: 32-33) pinpoints that HIV clinical tests, including those for detecting HIV infection, sometimes produce false-negative and false-positive results. The number of false results a given test is likely to produce depends on the test's sensitivity and specificity.

The sensitivity is a measure of the number of false –negative results a test can be expected to produce and the specificity is a measure of the number of false-positive results a test will likely produce.

Screening tests are designed to have high sensitivity because they are intended to detect all cases of infection, even though this may produce a number of false-positive results.

Today, new ELISA tests provide a sensitivity of essentially 100% and a specificity of 99.9%.

9. Antiretroviral treatment for HIV/AIDS

Evian (2000:79) and Wilson, et al. (2002:329) say that the purpose of ART is to achieve HIV viral suppression and reduce the level of HIV RNA to as low a level as possible, for as long as possible. This in turn will result in less immune damage and will reduce any continued decline in the health status of the patient. It is therefore effective in delaying the onset of AIDS. ART must maintain very low or ideally undetectable HIV viral levels (viral load).

Evian (2000: 80) and Soul City- Know the Facts (2002) stated that most animals, plants and viruses are made up of genetic material called DNA. However, a retrovirus, such as HIV, is constructed from genetic material called RNA. Retroviruses are rare.

Medicines that stop a retrovirus from damaging the human body are called antiretroviral (ART). They interfere with the life cycle of the retrovirus and help the immune system to recover.

Evian (2000: 79) says the role of ART in asymptomatic patients who are not immune-deficient is to inhibit and suppress HIV activity and replication, which will help to prevent immune damage and maintain adequate immune-function that will prevent disease progression and promote ongoing wellness and health. He also says the role of ART in a symptomatic patient with immune-deficiency is to prevent further decline and damage to the immune status and to promote some recovery of immune-status and improve immune-function and capacity.

It is stated in the Soul City- Know the Facts (2002) that there are three main purposes of using ARTs and they are the following:

- To reduce the risk of a women passing HIV to her newborn child. This involves a short course of medicine.
- To reduce the risks of people getting HIV so that they stay healthier and live long. Antiretroviral therapy used to treat HIV/AIDS involves taking three or more different antiretroviral medicines on a daily basis. This is called triple-drug therapy, combination therapy or, most commonly, HAART (High Active Antiretroviral Therapy). The different drugs work together to tackle HIV in different ways. These medicines must be taken for life.

Wilson, et al. (2002:330) say patients who are not ready for the commitment to therapy required by ARVT should not start on therapy. Before beginning therapy they need to be educated about the number of tables needed and the possible side- effects of the medication. They need to be aware that therapy is potentially life-long; and understand that non-compliance

may result in the failure of current, and possibly future, ART. It is not recommended that someone commence ART too soon after the diagnosis of HIV infection.

Although HIV cannot be cured, through HAART it is becoming a manageable chronic disease similar to diabetes or high blood pressure. It is also stated that people who take HAART need careful monitoring and must take their medicines every day without fail. If the medicines are not taken properly, the virus can become resistant to the medicines. ARVs are an important part of a comprehensive response to the AIDS epidemic. Health services need to be strengthened to ensure treatment programmes are effective. HAART is currently unaffordable to most developing countries. These two issues need to be addressed in the rollout of a country's treatment plan (Soul City- Know the Facts, 2002).

Evian (2000: 81) and Wilson (2002:333) say there are currently three main categories of Antiretrovirals. The three drug categories are nucleoside reverse transcriptase inhibitors (NRTIs), Non-nucleoside reverse transcriptase inhibitors (NNRTI's) and Protease inhibitors (PIs). The NRTIs include Retrovir (AZT), Videx (ddi), Hivid (ddc), Efavir (3TC) and Zerit (d4T). The NNRTIs also disturb the life cycle of HIV by interfering with the reverse transcriptase enzyme in replication process of the virus. They include nevirapine (Virimune). The PIs on the other hand interfere with the life cycle replication of the virus. They include Crixivan, Invirase, Viracept and Norvir.

(See appendix 10 for example of antiretrovirals).

The above drugs are considered able to block the replication of HIV. It is however uncertain whether replication is ever totally suppressed. Research suggests that once ARVT is discontinued, viral replication is usually resumed and viral loads usually rise again (Evian, 2000: 81; Wilson, 2002:333).

According to Barrett- Grant, et al. (2001: 25) since 1996, doctors have treated people with HIV with combinations of anti-retroviral drugs, namely HAART. HAART stops HIV from multiplying and reduces the volume of HIV in the blood, so that patients who take HAART no longer get sick from HIV disease or developing AIDS. Many of these people have now recovered their health and are going back to work. If a person takes HAART, he or she needs regular tests to check on the effect of the treatment on your CD4 cell count (the measure of how strong your immune system is), and your viral loads (the amount of HIV in your blood).

It has been argued that the use of HAART has led to a massive drop in a number of deaths in the USA, Europe and Brazil (Barrett- Grant, et al., 2001: 25). At the moment, people living with HIV or AIDS in South Africa find it hard to get access to counselling and basic treatments for opportunistic infections at government hospitals. HAART is very expensive, and is not available to most people living with HIV.

There is no vaccine against HIV or drugs that specifically target HIV, though many are being investigated. Zidovudine, commonly called AZT, was originally developed for treating cancer. It kills but does not specifically target HIV. In 1986 AZT was shown to make the T4 cell count rise for up to six months, improve wellbeing, lead to weight gain, decrease the frequency and severity of opportunistic infections and increase survival time in those with advanced immune deficiency. In developed countries, zidovudine began to be widely prescribed in high doses for people with advanced disease. With more advanced disease, the advantages of AZT usually outweigh the disadvantages (Berer & Ray, 1993: 30).

AZT in high doses could have serious adverse effects such as nausea, vomiting, diarrhoea, insomnia and headaches. Damage to vital organs and anemia can occur, which if severe, regular blood transfusion may be required. Regular attendance at a specialist clinic for monitoring is very important (Berer & Ray, 1993: 30).

HIV develops resistance to zidovudine in most people with symptomatic disease who have taken it for six months or more. The resistance also occurs in asymptomatic people, but very slowly. If people who are well take zidovudine for several years, it may be of no use to them once they begin to get ill and experience side effects. In people who feel healthy it is not desirable. However, zidovudine has been found to delay progression to AIDS and delay a fall in T4 cell counts in people who are asymptomatic or have early signs of infection (Berer & Ray, 1993: 30).

Wilson, et al. (2002:331) stated that there are factors influencing adherence. They say that the following are factors that promote adherence: motivated patient, good understanding of HIV disease and therapy, education given in a patient's home language prior to and during therapy, participation in a support group and during late or symptomatic HIV disease. Factors that reduce adherence include alcoholism, depression, poor understanding of the disease or

therapy, non-disclosure of HIV status to close family and friends and early symptomatic disease.

9.1. Antiretroviral treatment for children

Wilson, et al. (2002:345) stated that the goals of ART for children are similar to those for adults. In addition to stopping or reversing the progression of the disease, the aim is to restore normal growth and development. By maintaining the immunological status of the infant or child, clinical progression will be prevented. A long - term strategy for the use of anti-retrovirals to prolong art and, hence, extend the child's lifespan should also be developed. Like Wilson, et al. (2002:345) and Evian (2000:180) also say ART for children promotes and restores normal growth and developments, prevents complicating infections and malignancies, mproves the quality of life and prolongs survival.

Wilson, et al. (2002: 345) argued that there is a difference between anti-retrovirals therapy for children and for adults. They say that infants and children depend on the compliance of their caregivers. Occasionally infants may exhibit resistance behaviour that adversely affects compliance, or alternatively, the bad taste of some medications (such as ritovair) leads to medication refusal. The principles of therapy are the same as for adults – ideally a minimum of three drugs should be used.

9.2. Problems with antiretrovirals

Evian (2000:180), Van Dyk (2001:71) and Wilson, et al. (2002:391-341) said the following are problems associated with antiretroviral treatment:

- The cost of the drugs.
- The need to maintain treatment on an ongoing basis and adherence to therapy may be a problem.
- These are new drugs with unknown long-term side effects and uncertain drug dosage regimens.

- There is the potential for HIV to develop resistance to the drugs
- Side effects may occur.
- Interaction may occur with other drugs.
- Some drug regimens are complex.

Another big problem is that antiretrovirals are unaffordable due to the fact that there are at present few generics (Poku, 2001:201).

10. Psycho- social effects of HIV/AIDS

10.1. Psychological effects of HIV/AIDS

CatalÛn (1999: 22-24) mentions that mental health problems are more likely to occur when the person is given a diagnosis of HIV infection and HIV/AIDS related physical symptoms develop or worsen. The distress associated with notification of a positive HIV test result is usually self-limited, but the way the news is given, the individual's expectation of the result, disclosure to others, and the degree of support available will influence the course and duration of psychological problems. He discussed many studies, which revealed that the development of symptomatic diseases or the worsening of HIV-related symptoms is associated with depression and psychological distress.

CatalÛn (1999: 22-24) emphasizes that individuals with personality difficulties or personality disorders are less likely to cope well with adversity. Therefore they are at greater risk of developing mood disorders and other mental problems. It is also true in the case of HIV infection, where studies have described this association both in cross-sectional and longitudinal designs. There is also some evidence to suggest that people with personality disorder, in particular those with a borderline or antisocial personality disorders, are at greater risk of acquiring HIV infection.

Individuals who, prior to acquiring HIV infection, have received in or outpatient psychiatric care, are at greater risk developing mental health problems following infection. Similarly, events with a negative impact appear to be associated with the development of psychological morbidity in

people with HIV infection, and it has been argued that severe life stress might have a possible adverse role in HIV disease progression (CatalÛn, 1999: 24).

While there is no compelling evidence that age is a predictive factor for emotional distress in people with HIV, it has been suggested that older individuals are at greater risk for psychiatric disorders, in particular those related to cognitive impairment and dementia. A number of studies also have suggested that women suffer more HIV-related emotional distress, and that women in developed countries seem to have worse access to medical services than men, which may have adverse affects also on their general physical health (CatalÛn, 1999:24).

People who know that they have HIV or AIDS feel many different emotions. Some feel shocked and some feel angry. The feelings of people with HIV or AIDS change often. One day they may feel rejected and lonely. The next day they may feel hopeful. Normally they feel very confused and they do not know what to do. At first some people cannot believe that they have HIV or AIDS and they believe that the doctor must be wrong to say they are HIV positive. Therefore they deny the news they receive. Sometimes they blame themselves or the person they think gave them HIV. Some may even blame God. Some people try to bargain. For example, they think God will cure them if they stop having sex.

According to Uys (2000:163) people with HIV or AIDS often feel lonely and fear many things ranging from pain, losing their jobs, other people knowing that they are infected or their children who will be orphaned. Some people with HIV or AIDS think everyone is looking at them or talking about them. This makes them want to hide. Sometimes they feel rejected by other people, or they reject themselves. Sometimes they feel guilty.

It has been argued that lack of disclosure also allows for the continued denial of the spread of the disease in South African communities (Uys, 2000:163). It is this denial that is the breeding ground for stigma, suspicion and violence.

Some people with HIV or AIDS feel there is no good reason for living. They feel useless. Evian (2000: 275-278), Uys (2000:161-162) and Van Dyk (2001:256-259) describe the psychological impact of HIV/AIDS. They say that HIV-infected people have many fears. They are also particularly fearful about being isolated, stigmatised and rejected. They fear the uncertainty of the future. HIV-infected people often feel that they have lost everything that is most important and beautiful to them. People with HIV infection often have profound feelings of grief about the

losses they have experienced or are anticipating. They grieve for their friends who die from AIDS, and they grieve with and for their loved ones – those who must stay behind and try to cope with life without them.

HIV- infected individuals frequently express guilt and self-reproach for having contracted HIV and for having also possibly infected others. The chronic uncertainty associated with the progress of HIV infection often aggravates feelings of anxiety.

Most HIV positive people go through a phase of denial. Denial is an important and protective defence mechanism because it temporarily reduces emotional stress.

HIV infected people are often very angry with themselves and others and this anger is sometimes directed at the people who are closest to them.

The self-esteem of HIV-infected people is often severely threatened. Rejection by colleagues, friends and loved ones can cause one to lose confidence and a sense of one's social identity – and thus to experience reduced feelings of self-worth. HIV-infected individuals often experience depression because they feel that they have lost so much in life – and that they themselves are to blame for it. Inwardly directed anger may manifest as self-blame, self-destructive behaviour or (in its most intense form) suicidal impulses or intention. Suicide may be construed as a way of avoiding pain and discomfort, of lessening the shame and grief of loved ones, and of trying to obtain a measure of control over one's illness. Some HIV-infected people who are confronted with death, loneliness, and loss of control often ask questions about spiritual matters in their search for religious support (Evian, 2000: 275-278; Uys, 2000:161-162; Van Dyk, 2001:256-259).

After some time most people with HIV or AIDS accept their situation. They often feel more serene (peaceful in mind) and start thinking about the best way to live. They develop hopeful feelings. They hope that they will live a long time, that scientists will find a cure, the doctor will be able to treat each sickness as it comes, because they are loved and accepted for who they are and hope because of their belief in a life after death. It is important to have hope. Hope lifts a person's spirits and gives them strength to face each situation. Hope can help a person to fight HIV and AIDS and live longer needed (Evian, 2000: 275-278); Uys; 2000:161-162 & Van Dyk, 2001:256-259).

The AIDS Control Programme, Ministry of Health, The AIDS Support Organisation, WHO and United Nations Children's Fund (1992: 30) believe that hope and acceptance can help a person to live positively with HIV and AIDS i.e. making choices in his/her life that are good for

his/her health, living as normally as possible, making the best of your life as a person with HIV or AIDS and looking after his/her spiritual and mental health.

10.2. Socio-economic effects of HIV/AIDS

Socio-economical and environmental problems, such as loss of an occupation and income, discrimination, social stigma (if the client's diagnosis becomes commonly know), relationship changes, and changing requirements for sexual expression, may contribute to socio -economic problems after the diagnosis of HIV infection. Many HIV-infected people also have to cope with financial problems; they often cannot afford to buy the anti-retroviral therapy that might give them a longer lease on life. The client's perception of their lives and adequacy of social support is also a very important factor because it may become a source of pressure of frustration when it is not needed (Evian, 2000: 275-278; Uys; 2000:161-162 & Van Dyk, 2001:256-259).

According to Wilson, et al. (2002: 189), Van Dyk (2001: 279) there is a high risk of suicide in HIV- positive people. The high -risk periods during the course of HIV positive people are following losses e.g. financial losses or rejection by family or friends. Van Dyk (2001 296) says that fear of stigmatization and ostracism is very real factors when one has been diagnosed with HIV/AIDS. It is the fear of rejection and isolation that causes AIDS patients the greatest pain. This kind of pain can lead to suicide.

Stigmatized people may therefore be denied the ordinary privileges of social life. If infected people are perceived as guilty, members of the community may be hostile to them and these hostile acts may include acts such as termination of employment.

The AIDS epidemic has also created more than 13 million orphans under the age of 15 years. Extended families are greatly overextended therefore it is no longer practical to take care of AIDS orphans. The stigma associated with AIDS deaths in many communities also make families not willing to take care of AIDS orphans. The consequences of this, is that these children are often isolated and deprived of basic social services such as education and food. The lack of access to education and lack of work skills and family support of any kind contribute to these children living on the streets. Since they have no money to survive, they end up committing crime (Van Dyk, 2001:334-335).

The impact of HIV/AIDS on households can be severe. The household dissolves as parents die and children are sent to relatives for care and upbringing. Before this dissolution occurs, the family assets and income earners further impoverish those already poor. The disposal income falls. The loss of income, additional cares related expenses, the reduced ability of caregivers to work, mounting medical fees and funeral expenses collectively push affected households deeper into poverty (UNAIDS, 2002:47-51; Poku, 2001:196).

Furthermore health budgets and systems are strained by extending prevention and care for sexually transmitted infections, counseling and testing, prevention of mother –to- child transmission services and HIV- treatment Health budgets and systems are strained by extending prevention and care for sexually transmitted infections, counseling and testing, prevention of mother –to- child transmission services and HIV treatment (UNAIDS, 2002:50). Van Niekerk (2001:144) says that up to 70% of hospital AIDS patients occupied beds in Africa.

The UNAIDS (2002:52) further mention that the impact of HIV/AIDS on the education sector is seen in the decline in the number of school enrolments. The contributing factors include the removal of children to take care for parents and relatives dying of HIV/AIDS; an inability to afford school fees and AIDS related infertility. Teachers are also infected and affected by HIV/AIDS and therefore there is also shortage of school- teachers.

AIDS also affect large enterprises by weakening economic activity by squeezing productivity, adding costs, diverting productivity resources and depleting skills. The epidemic hits productivity mainly through increased absenteeism, organizational disruption and loss of skills and organizational memory. Rising absenteeism tends to push visible costs up while forcing productivity down, putting profits at risk. There is high risk that the enterprise will collapse (UNAIDS, 2002: 54; Poku, 2001:193).

Through its impact on the labour force, households and enterprises, HIV/AIDS can act as a significant brake on economic growth and development.

11. Myths about HIV/AIDS

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According to Van Dyk (2001:33) there are some truly horrifying myths that are circulating in some communities about how to avoid HIV infection and AIDS these myths are extremely dangerous and should be counteracted in our society by means of intensive public education.

Aggleton, et al. (1989: 57- 63) postulate that there are several different kinds of lay beliefs about HIV infection and AIDS namely:

- Lay beliefs about AIDS itself, what it is and how it can be diagnosed.
- Lay beliefs, which explain the origins of AIDS.
- Lay beliefs, which explain why some people develop AIDS and others do not.
- Lay beliefs, which identify the people, the situations and the activities that are perceived as particularly risky.
- Lay beliefs, which distinguish between supposedly innocent and guilty victims of infection.

They argue that lay beliefs can also encourage people to misperceive the risk associated with particular kinds of behavior. They also report on evidence from research into tobacco and alcohol use which suggests that lay beliefs about health are very important in determining whether or not a person responds to conventional health education. Lay beliefs about health may weaken the effects of health education campaigns, which emphasize medical information.

Whiteside and Sunter (2000:1) identified and explored myths regarding HIV/AIDS following debates and beliefs regarding the origin of HIV/AIDS. There are a number of myths that will be discussed and also the realities regarding those myths as identified by Whiteside and Sunter (2000:1):

- There is a myth about the existence of HIV as a virus. People believe that there is no evidence that HIV exists as a virus. Therefore it is not responsible for causing AIDS. AIDS has been around a long time and is due to factors such as poor living conditions, malnutrition, trauma and stress. Despite this myth, Whiteside and Sunter (2000:1) argue that while science can never be as certain as mathematics, the majority of the world's leading virologists believe that the HIV hypothesis is correct.

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- Crewe and Orkin (1992: 8) also add that the most lurid myths regarding the origin of AIDS claims that the virus came from the Central African green monkey. The monkey has a related strain of HIV in its blood. This blood is used for circumcision rites in Central Africa. In this way the virus was transmitted from monkey to man, mutated and developed into HIV and spread to the rest of the world from there via prostitutes, airline stewards and missionaries. Recent research has argued that the virus in the green monkey is genetically too distant from that in humans for the idea to be plausible (Crème & Orkin 1992: 9).
- Another myth cited by Crewe and Orkin (1992: 8-9) is that a group of American scientists was requested by the CIA or the FBI to develop a virus capable of destroying the body's immune system for the use of germ warfare. The virus then escaped and soon developed into the AIDS pandemic. It was alleged from a soviet weekly published in October 1985, that the AIDS virus had been engineered by the US Government and was being spread by those US service men who had been used as guinea – pigs
- It is also believed that HIV is a unique virus inflicted on mankind as a punishment for the wicked (Crewe & Orkin, 1992: 9).
- Another common myth is that AIDS is the result of people having sex with monkeys. The disease is likely to have originated from monkeys in Africa, most probably from contact between human blood and the contaminated blood of a monkey. It is not the first, nor will it be the last, disease to cross the species barrier (Crewe & Orkin, 1992: 8-9).
- There is another belief that AIDS can be transmitted through touching and kissing, being close to an infected person and sharing facilities. Blood, semen, vaginal secretions or breast milk have to be involved for transmission to occur. The chances of infection from blood spilt in the absence of contact with another person's open wound are minimal. The virus can only survive for a short period outside the human body. However, common sense dictates that contact with blood should be avoided, and

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people giving first aid should use protective gloves because other blood borne diseases are easily transmitted (Crewe & Orkin, 1992:8-9).

- There is also a very strong feeling that a child born to an infected mother will be HIV positive. However, it has been discovered that the chance of MTCT is about 30 per cent and can be greatly reduced with appropriate interventions. There have been a number of studies into the use of antiretroviral drugs to combat MTCT in South Africa. These have been done at the Chris Hani Baragwanath Hospital in Gauteng and at King Edward Hospital in Durban. Notably, however, the studies show that the chance of MTCT transmission can be greatly reduced at a relatively low cost and using fairly simple treatment regimes (Crewe & Orkin, 1992:8-9).
- There is fear that Antiretroviral drugs are too toxic to be given to mothers and babies. Obviously, if they do not believe HIV exists, you can argue that no antiretroviral drugs should be given to patients because they are unnecessary as well as being toxic, however, if you do believe the virus exists, then antiretroviral drugs should be viewed in the same light as cancer drugs where their toxicity is weighed against the downside of not using them (Crewe & Orkin, 1992:8-9).
- The majority of people feel that babies should not be saved from catching the virus because it adds to the subsequent orphan problem. Every life should be saved where possible. Bringing down the cost of treatment to stop MTCT is therefore a major priority (Crewe & Orkin, 1992:8-9).
- Condoms are not used by a number of people, as they believe that they don't work as the virus can pass through the latex, and anyway they fail. However, the virus cannot pass through the latex. If condoms are used properly, consistently, and are SABS (South African Bureau of Standards) approved, they provide close to 100 per cent protection (Crewe & Orkin, 1992:8-9).
- People lose hope, as AIDS is untreatable. Therapies are available which reduce viral load (and therefore infectiousness). They definitely improve the quality of life of people living with AIDS, but challenge is to make them affordable to everyone.

- Recent medical advances to people mean that AIDS can be cured. Although the medical advances have been spectacular, there is still no cure or vaccine for AIDS. What we know is that taking various combinations of drugs can reduce the virus to undetectable levels (Crewe & Orkin, 1992:8). However, this does not work for all patients. There are side effects, compliance is not easy, and the virus develops resistance to some drugs in some parties and is probable that once people stop taking the drugs, the virus particulars will rebound. The drugs are also very expensive at present; although there is a good chance that price will come down (Crewe & Orkin, 1992:9).
- Another myth about the HIV prevalence is that when HIV prevalence peaks, we can all relax because the main fury of the epidemic will be spent. However, HIV incidence may still be high when HIV prevalence peaks, but it is being offset by AIDS deaths. More over, the curve of AIDS cases can still be rising strongly and it is this one that really affects the economy (Crewe & Orkin, 1992:9).
- There is excitement that AIDS will solve the unemployment problem. The reality is that, by killing the economically active age group, AIDS will provide employment opportunities for those at present unemployed. Equally AIDS will reduce the ranks of the unemployed as they fall sick and die. This impact has not been seen anywhere. Models suggest that economic growth could slow as a result of AIDS, but this hypothesis still has to be proven (Crewe and Orkin, 1992:8-9).

Aggleton, et al. (1989: 57- 63) also listed lay beliefs about HIV infection and AIDS. The following are the myths as identified by the authors:

- When AIDS claimed its first homosexual victims, ordinary people nodded their heads and saw it as God's vengeance on those who led unnatural and promiscuous lives. Other lay beliefs about origins suggest that AIDS might have been manufactured in the research laboratory, perhaps in connection with experiments in genetic engineering or biological warfare. Depending on the person's broader political beliefs, either the CIA or the KGB may to be blame. The first of these suggest that AIDS is the result of

something within people; the second that AIDS is caused by something outside or around them.

- Endogenous beliefs suggest that AIDS be caused not by a virus but by some quality of the individual or person himself or herself. According to this point of view, some people may be predisposed to develop AIDS by virtue of their sexuality or their lifestyle. There is growing evidence from research carried out in the United States and in Britain that some people believe that by generally keeping fit or by being speedy or by being aggressively heterosexual or by being streetwise or by leading a good Christian life, it is possible to avoid HIV infection.
- Another set of lay belief of this kind suggests that AIDS can be found endogenously within us all. Being overstressed or having too much sex were frequently identified by some of those interviewed as critical ways in which this could come about. Some people believe that AIDS is all around us and that everyone, regardless of their own behavior, is currently at risk of infection. Ideas like these link closely to the view that being near an infected person is sufficient for transmission to take place.
- Some people emphasize the role that chance and “bad luck” may play in determining whether or not they become infected. Lay beliefs like these are likely to influence the extent to which people feel able to take effective steps to safeguard themselves and others from infection. Other people suggest that some people may feel they may be able to minimize the risks by being selective in their choice of prospective sexual partners.
- A final set of lay beliefs about HIV infection and AIDS differentiates between supposedly innocent and guilty victims of infection. Hemophiliacs, blood transfusion recipients, children and the married partners of those who engage in extra-marital relationships are usually termed innocent, while gay men, injecting drug users; prostitutes, the promiscuous and bisexuals are usually guilty. These kinds of beliefs often arise not from rational thought but from moral judgments about different kinds of behavior. They can be dangerous and divisive since they imply that some people may have chosen to acquire HIV infection.

Campbell and Kelly (1995) as quoted by Van Dyk (2001:115) add that attributing HIV infection to witchcraft may also help the bereaved family to avoid feeling stigmatized by their community. Ironically, Boahene (1996) as quoted by Van Dyk (2001:115) found that people who believe that AIDS is caused by witches are more likely to be supportive of HIV/AIDS patients because their understanding is that the patients have become infected with the virus through the agency of sources that are beyond their control.

Witchcraft beliefs nevertheless also have very negative implications for AIDS counseling and education in Africa. The belief that everything that happens to a person can be attributed to external, supernatural being or powers (an external locus of control) implies that individuals cannot be held responsible or accountable for their own behavior. This outlook tends to prevent people from exercising their personal initiative in searching for solutions (Viljoen, 1997 in Van Dyk, 2001:115). Boahene (1996) as quoted by Van Dyk (2001:115) found that many people in Africa do not consider their own behavior to be a possible reason for HIV infection, because of this misconception; they cannot appreciate the need for using HIV-preventative methods.

Experience has taught AIDS educators working in Africa that to ignore and ridicule traditional witchcraft beliefs has adverse effects on their HIV/AIDS prevention programmes. These beliefs should rather be taken into account and integrated into HIV/AIDS prevention programmes. Programmes should, for example, recognize the belief that the personal or ultimate cause of an illness may be witchcraft, but the fact should be stressed that the immediate cause is a germ, which is sexually transmitted (Van Dyk, 2001:116).

12. HIV/AIDS prevention and care strategies

Van Dyk (2001:80) states that because there is no cure or vaccine for HIV and AIDS, the only defence against the HIV epidemic is prevention. Prevention however entails much more than a set of rules of what to do and what to avoid. Effective prevention requires an accurate knowledge of how human beings behave in different contexts.

Wilson, et al. (2002:7) also adds that in the absence of successful prevention efforts, AIDS related deaths are expected to rise. According to Wilson, et al. (2002:11) the benefits of prevention at a population level in terms of illness and mortality derive in the long term while

the benefits of treatment derive more rapidly. Whiteside and Sunter (2000: 21) postulate that the developments of prevention and treatment strategies in developed countries have shown a decline in the mortality rates.

According to Barrett- Gordan, et al. (2001: 19) and Wilson, et al. (2002:62) there are a number of ways of preventing HIV transmission namely:

- You can abstain from (not have) sex.
- You can have safer sex
- You can get treatment for sexually transmissible diseases (STDs)
- You can take universal precautions when you touch blood or body fluids.
- You can take post-exposure prophylaxis (treatment) immediately after an exposure to HIV
- Mothers can take anti-retroviral therapy to cut down the risk of passing HIV on to their unborn babies.
- Medical researchers hope that one-day we may have an HIV vaccine to prevent people from getting infected with HIV
- Researchers also hope that we may develop a vaginal microbicide that can be used to prevent HIV from getting passed on during sexual intercourse.

The onset of sexual activity, mutual masturbation, thigh sex and long-term mutual monogamy with an uninfected partner using effective contraceptives should be promoted to prevent HIV infection (Wilson, et al., 2002: 64)

According to Gordan and Klonda (1988: 74) people living with HIV/AIDS can help themselves to stay as healthy and well as possible in the following ways:

- They can avoid getting more HIV into the body because it is likely to hasten the progress of the disease. They can adopt safer sexual practices. This will also prevent infection with other sexually transmitted diseases, which also appear to increase the risk of developing AIDS.
- They can look after their immune systems by avoiding stress as much as possible. They should eat as well as they can, avoid too much alcohol and tobacco, and get enough rest.

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- They need to get treatment for infections to save their immune systems from unnecessary work, for example, tuberculosis and sexually transmitted diseases.
- When they are over the first shock, it helps to develop a positive attitude, perhaps by using their knowledge to help others to avoid HIV infection.

They can also protect others from HIV by not having penetrative sex or always using a condom and not donating blood or sperm.

According to Van Dyk (2001: 326) the magnitude of the HIV/AIDS crisis has inevitably meant that both the family and the community had to become involved in most care programmes. HIV/AIDS make tremendous new demands on health services that cannot be met by hospitals alone, because HIV infection (and all its accompanying complications) can last for months or years, as a person with HIV infection or AIDS may move from the home to the hospital and back again several times. Because hospital care is very expensive, families can often not afford multiple admissions to hospitals.

Hospitals themselves do not have the personnel and resources to cope with the huge demands that AIDS asks of them. The only practical and humane solutions are:

- That patients be cared for in their own homes and communities for as long as possible
- That we utilize clinics and other health care support systems in the community for advice and support.
- That we use hospitals as a last resort when a patient's condition has deteriorated and when professional help is needed. The demands on families and the community do not end with the death of the patient. The AIDS epidemic has left behind millions of orphans in Africa and the conditions in which these children live are appalling. If communities do not reach out to help these children, AIDS will also kill our future (Van Dyk, 2001: 327).

Wilson, et al. (2002: 399) say caring programmes in Sub-Saharan Africa are usually NGO or church led. These organizations care for anything from 10 to 100 patients. Care could include the medical, nursing, social educational, and spiritual aspects. Examples include ongoing counselling, help with cooking and/or cleaning; food parcels; material support; wound care; basic hygiene; supervision of drug taking and treatment of tuberculosis (TB) using directly-observed therapy (DOTS).

Various infrastructures that are able to provide different models of care include:

- Drop-in centres or support groups;
- Outreach and home visiting programmes; and
- Comprehensive Home Based Care (HBC).

Community home-based care is the care given to individuals in their own homes when their families, their extended families or those of their choice, support them. A multidisciplinary team and complementary caregivers who are able to meet the specific needs of the individual and family support these home-based caregivers. The team consists of all people who are involved in care and support may include a medical practitioner, nursing supervisor, social worker, health educator, physiotherapist, occupational therapist, AIDS health promotion workers, volunteers, traditional healers, religious healers and religious leaders (Frohlich, 1999, in Van Dyk, 2001: 327).

According to Wilson, et al. (2002: 154) treatments in the form of drugs are an essential tool in the response to the morbidity and mortality caused by HIV/AIDS. However, it is not the only one. To be able to cope successfully with HIV/AIDS, people living with the virus must have access to a wide range of treatment, care and support options provided across a continuum.

Evian (2000: 299) says if possible involve other terminal care agencies such as hospice associations, cancer associations and AIDS organizations, to assist in managing a dying patient. Social workers, clinical psychologists, bereavement counselors etc. are often experienced in dealing with these issues and can be very helpful. A team approach in caring for dying person and his/her family is best. Usually one person should take the responsibility/leadership and ensure that there is adequate coordination of the team. The primary care doctor or nurse is often in the best position to assume this role.

Communication plays a vital role in promoting all STD/HIV/AIDS prevention, care, support services, which include STD, voluntary counseling and testing (VCT), support groups, people living with HIV/AIDS (PLHA) networks, orphans and vulnerable children (OVC), mother-to-child transmission (MTCT), clinical care for opportunistic infections and social and economic support.

Communication can also play a role in influencing the discourse on HIV/AIDS by attempting to stimulate dialogue and prompt action for reduction of risk, vulnerability and stigma.

According to the WHO- Fact Sheet 6 (2000a: 4) nurses and caregivers must examine their own beliefs, values, assumptions and attitudes toward HIV/AIDS. There is recent documentation suggesting that health care workers are some of the worst offenders in discriminating against and refusing to care for people living with HIV/AIDS. Such behaviors are unacceptable. However, change will only come about through examining long-standing negative thoughts, feelings and behaviors.

Education can also be directly addressed through educational programmes based on sound medical, social and psychological knowledge. Knowledge about HIV/AIDS is constantly expanding. Nurses and caregivers must be continually updated through continuing education programmes. Prevention strategies will continue to be compromised if fear, ignorance, intolerance and discrimination against HIV infected persons persists. Nurses and midwives have a responsibility to help normalize HIV so that the modes of transmission and prevention can be addressed without the emotional and attitudinal overlay that limits open dialogue about AIDS.

Effective and dignified care can only be given where respect and compassion for other people is the norm. Looking inward to examine and challenge long-held beliefs, values, assumptions and attitudes will go a long way to providing compassionate and respectful care.

13. Summary

This chapter gave us background information about HIV/AIDS. HIV/AIDS seems to be a very complicated phenomena with regard to where it originates and how it develops. A person can remain without symptoms for a very long time before they reach the AIDS stage. During the first week of infection, the person is very infectious and during that time, the tests are unable to detect the HIV antibodies through HIV antibodies tests. It is however clear about how it is been transmitted and how it can be prevented from the infected people infecting the uninfected. There are other issues such as cultural factors related to breastfeeding and condom use that affect the prevention of transmitting HIV from the infected people to the uninfected people. There are debates about whether people should breast feed or formula feed, as there are risks involved with both methods. There are also a lot of barriers related to the myths about HIV/AIDS as these are issues that people believe in and unfortunately they are not true. There

is no cure for AIDS. However there is treatment to stop the HIV virus from multiplying called Antiretrovirals. They are however not affordable to everyone who needs them.

HIV/AIDS is referred to as a social disease. Its main mode of transmission is through sexual intercourse. Sex, is however a subject that is not easily discussed. There is a lot of stigma attached to HIV/AIDS because of this mode of transmission. There are cultural issues attached to this stigma and transmission. It is important to discuss cultural issues in general to understand why there seems to be a relationship between HIV/AIDS and culture. The next chapter will therefore focus on culture and cultural practices in general.