

SECTION ONE: INTRODUCTION



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I. INTRODUCTION

South Africa has the largest number of people living with HIV/AIDS in the world: 14.4% of all people living with HIV/AIDS live in South Africa. The 5.6 million South Africans living with HIV/AIDS (DoH 2004) are mostly in the economically-active age group. HIV prevalence is highest among those aged 15–49 years; however there are major differences for males and females. Among South African women aged 25–39, the estimated HIV prevalence in 2002 was 17.7%, much higher than among males (12.8%) (Nelson Mandela/HSRC Study of HIV/AIDS 2002).

Studies have been conducted to examine the impact of HIV/AIDS on various sectors of the economy, including the mining (Evian, Fox, MacLeod, Slotow & Rosen 2004), manufacturing, health (Shisana, Hall, Maluleke, Chauveau & Schwabe 2004) and education sectors (Badcock-Walters, Desmond, Wilson, Heard & Mobile Task Team 2003). The findings generally indicate that the epidemic is affecting the economic sectors differently (Evian et al. 2004). HIV/AIDS appears to affect the mining and metal processing sector more than it does other industrial sectors, mainly because of the migratory labour system that forces men to live away from their families.

The effectiveness and functioning of the public sector is also increasingly threatened by the HIV epidemic. The disease undermines human capital and limits revenues available to finance development while generating increased demand for public services. Health sector studies show that the number of people seeking healthcare for HIV/AIDS-related illness has been increasing, while the service providers — health professionals — are in short supply and are also infected and dying. Studies in Zambia found that the death rate among health workers due to AIDS quadrupled between 1986 and 1999 to reach 3% per year; Botswana is expected to have lost 17% of its health workforce between 1999 and 2005 (ILO 2004). A South African health sector study also found that 15.6% of the tested health professionals were HIV positive. Furthermore, 80% of health facilities indicated that they needed more staff to cope with the disease (Shisana et al. 2003). The high mortality of patients with HIV-related disease can undermine feelings of professional adequacy.

The education sector is thought to be particularly hard hit by HIV/AIDS because both the demand for and supply of education are affected. Not only do children drop out of school because of HIV/AIDS, thus reducing demand for educators, but educators, school managers and education policy-makers are themselves dying of AIDS, thus reducing supply. Education is crucial to the creation and enhancement of human capital, which is essential for sustainable development. Despite the dearth of empirically-based studies on the impact of HIV/AIDS on the education sector, a few studies suggest that the impact may be significant. It is estimated that the education sector will experience high morbidity and mortality due to HIV/AIDS and consequently the attrition of educators.

In East and Southern Africa, where the HIV/AIDS epidemic has been prevalent for longer, the impact of HIV/AIDS on the education sector is evident. A Zambian study showed that educator mortality was 39 per 1 000, a figure considered 70% higher than that for the adult population aged 15–49 years. The World Bank projected that 40% of Malawian education personnel working in urban areas would die of AIDS by 2005; 100 Tanzanian primary school educators die of AIDS each month and estimates are that by 2006, 45 000 trained educators will be needed to make up for those lost to AIDS, while in Botswana death rates from AIDS increased from 0.7 per 1 000 in 1994 to 7.1 per 1 000 in 1999 (ILO 2004).

A 1999 educator demand and supply projection model in South Africa suggested that AIDS would add to existing high levels of educator attrition and that the cumulative attrition rate may require replacement of as many as 60 000 educators by 2010 (HEARD 2003). Another South African study found that the educators' mortality is expected to grow over time. While AIDS mortality among educators was estimated to be about 0.64% in 1999 in KwaZulu-Natal, it is expected to rise to around 5% by 2010. If the normal attrition rate of 6%, observed in 1999, was to hold constant over time, then it is hypothetically possible that gross attrition could climb significantly by the end of the decade (Badcock-Walters et al. 2003). All these findings suggest that the education sector may very well be experiencing higher than expected mortality due to AIDS.

The effects of the HIV epidemic do not end with issues of staff mortality. The performance of the whole education system can be affected by educators' morbidity, which can lead to extensive disruption of activities and by the impact of the epidemic on morale and internal and external disharmony (Cohen 2002). Sickness can result in high rates of educator's absenteeism and long-term and persistent absenteeism can be disruptive to the education system. No in-depth research has yet been undertaken that would allow robust estimates to be made on the effects of the HIV/AIDS epidemic on the overall number of days lost through increased educator absenteeism. However, of the available estimates, it is assumed that each infected educator loses a total of 18 months of working time (World Bank, cited in Bennell 2003).

Low educator morale and motivation can also have an impact on educator morbidity and absenteeism. High death rates among colleagues have always been cited as a factor, but a study conducted by Bennell (2003) found that low pay, poor conditions of service and inept school management also played a major role in educators' low morale. Higher levels of morbidity can adversely affect productivity in ways that will reduce the overall capacity of the education sector. These effects can further be exacerbated by mortality and morbidity of educators, managers, inspectors, and education officers.

The impact of HIV/AIDS has major implications for education systems. When an educator dies, many learners are without education. Some of the schools cope by combining classes, thus increasing the pupil/learner to educator ratio. In Botswana, death rates of primary school educators increased from 0.7 per 1 000 in 1994 to 7.1 per 1 000 in 1999 (ILO 2004). Thus the workload for the remaining educators increases, which compromises the quality of individual attention to learners. This in turn has serious implications for the intellectual capacity and skills of future generations. The gains of economic development are being reversed because of the slow progress African countries have made in educating children. Another challenge for the education sector is that the HIV/AIDS epidemic generates orphans. This is because most people become infected between the ages of 15 and 24 years, and many die when their children are still very young, leaving orphans who require extra emotional support from educators – a need which is unlikely to be met in large classes. In situations where classrooms have become larger, they are unlikely to receive much attention from their educators. Since they spend the greater part of their waking time in school, if they receive less attention they may grow up being emotionally deprived. This is no small problem if we consider that, as at December 2003, 15 million children in sub-Saharan Africa are estimated to have already lost their mother to HIV/AIDS (UNAIDS 2004).

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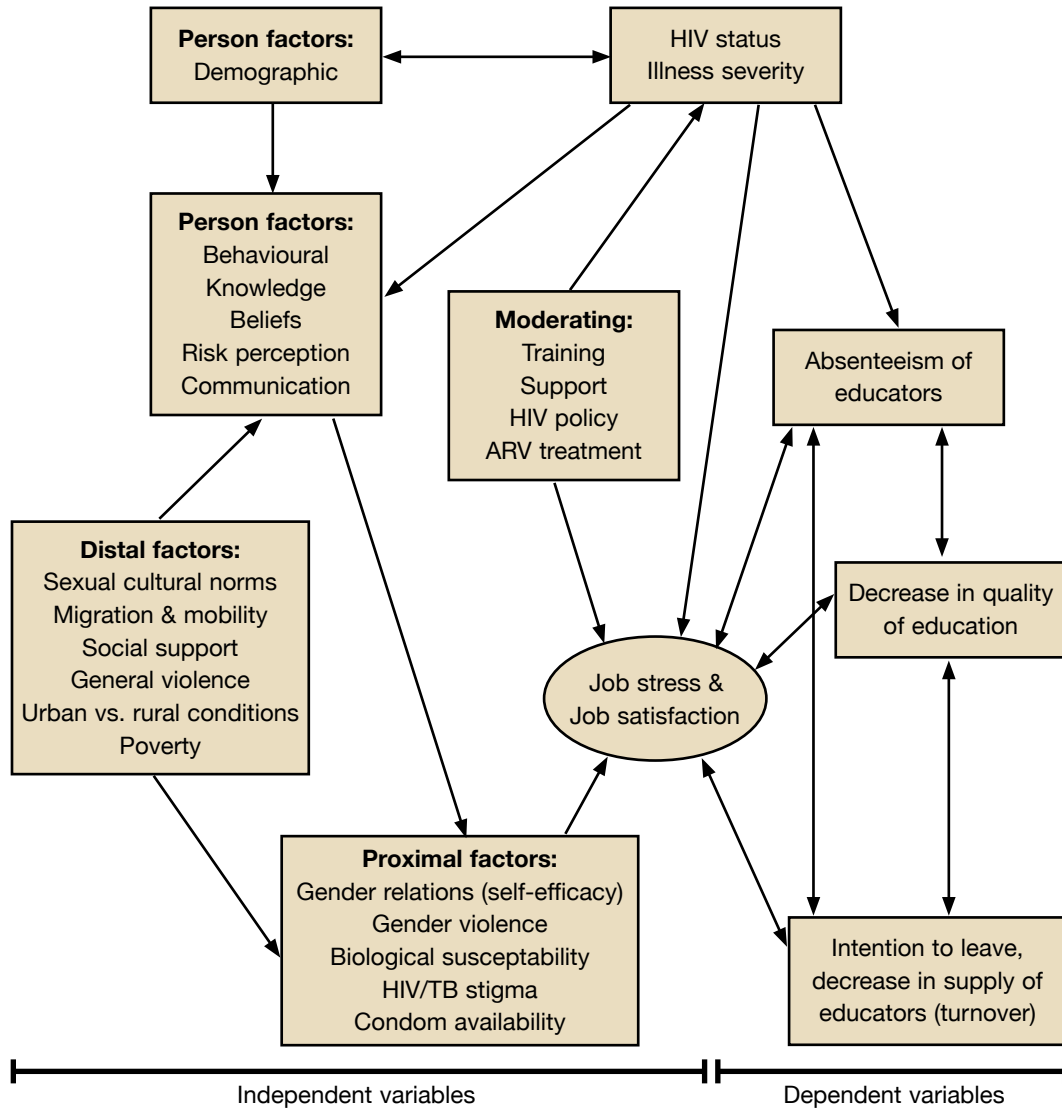
Loss of income within households also has a tremendous impact on children's school attendance. In Swaziland, primary school enrolment is projected to decline until 2011, and will only begin to level after 2012. Grades 6 and 7 will continue to grow as access to education improves (based on the past trends), and will begin to be affected by AIDS deaths in the year 2010. By the year 2016, with AIDS, there would be almost 45 000 Swazis of secondary school-going age. The number of secondary school age Swazis is projected to drop by 22.7% (Whiteside, Hickey, Ngcobo & Tomlinson 2003). This would have an impact on the economic status of future generations. Most of these estimates are based on projection models derived from antenatal data adjusted on the basis of specific assumptions. There is a serious scarcity of research based on HIV testing of educators and studies assessing the extent of the impact of HIV/AIDS on the public education sector. Some assume that because educators are dying, it must be from HIV/AIDS and few back up this assumption by testing the HIV status of educators. The dearth of scientific evidence makes it difficult to state with confidence what the impact of HIV/AIDS would be on supply of educators. It was for this reason that the ELRC, comprising the unions and the National DoE, commissioned the HSRC and its partners to undertake a study examining the impact of HIV/AIDS on the education sector. The main aim of this study was to explore the phenomenon of educator attrition and to understand various reasons why educators may be leaving the profession.

Some of the factors examined include health status of educators (including HIV/AIDS and TB), substance misuse or abuse, migration, staff morale and job dissatisfaction. In addition, the study will identify the required educator demands of the system, and the number of educators needed to meet this demand.

1.1 Epidemiological model

Figure 1.1 Epidemiological model

An epidemiological model, shown in Figure 4.1, was developed for the study. It consists of independent, moderator and dependent variables as explained below.



Independent variables

According to Peat, Mellis, Williams and Xuan (2002) independent variables are explanatory variables. In our model the independent variable consists of risk factors (distal, proximal and person factors), HIV/AIDS, moderators and other factors that influence and affect the dependent variables.

Risk factors in the model are those factors that contribute to vulnerability to HIV/AIDS. They include sexual practices, alcohol and drug use, poor knowledge and attitudes towards HIV/AIDS, sexual violence such as rape, as well as factors such as age, sex,

and race and locality type. Individually or combined, these risk factors contribute and increase the vulnerability to HIV/AIDS and therefore increase HIV infection, morbidity and mortality. TB and STIs, mentioned in the model as co-factors, are also directly influenced by the risk factors and contribute to HIV infection, as well as morbidity and mortality from AIDS. When dealing with AIDS-sick learners/colleagues and sick family, educators' morale and job satisfaction may be affected, which in turn affects (decreases) productivity.

Distal factors are the original distant cultural causative factors, and in the model are represented as sexual and cultural norms, migration and mobility, social capital, general violence, urban versus rural conditions and poverty. These factors have a direct influence and impact on the proximal factors. Proximal causes can be considered as current interpersonal causative factors, which include an individual's community or immediate surroundings and their influence. These are represented in the model by gender relations (self-efficacy), gender violence, HIV and TB stigma, and condom availability. These factors all have a direct effect on job stress and job satisfaction as well as on person factors.

Person factors can be considered as those personal or extremely close causative factors and are represented in the model as demographic, behavioural, knowledge, belief, risk perception and communication.

Moderators

Moderators such as the workplace laws, policies and programmes, ARV treatment, social support systems, staff morale, job satisfaction, destigmatisation/discrimination, and migration are affected by HIV/AIDS and affect the dependent variables. Apart from HIV/AIDS, other factors that influence the dependent variables are community violence and the general health status of educators, which decrease productivity, increase workload and attrition as well as affect the demand and supply of educators.

Dependent variables

Peat et al. (2002) consider the dependent variables as the outcome variables that explain or were affected by independent variables. The model above shows that the risk factors that directly influence HIV/AIDS go on to influence the dependent variables. All independent variables go on to influence and affect the demand and supply of educators, the recruitment and training of educators, student enrolment, attrition of educators, and productivity (including workload) of the educator workforce.

1.1.1 Independent variables

UNAIDS (2000) summarises the following behavioural, social and biological risk factors for HIV transmission:

Behavioural and social factors:

- Little or no condom use;
- Large proportion of the adult population with multiple partners;
- Overlapping (as opposed to serial) sexual partnerships – individuals are highly infectious when they first acquire HIV and thus more likely to infect any concurrent partners;

- Large sexual networks (often seen in individuals who move back and forth between home and a far-off workplace);
- ‘Age mixing’, typically between older men and young women or girls; and
- Women’s economic dependence on marriage or prostitution, robbing them of control over the circumstances or safety of sex.

Biological factors:

- High rates of STIs, especially those causing genital ulcers;
- Low rates of male circumcision; and
- High viral load – HIV levels in the bloodstream are typically highest when a person is first infected and again in the late stages of illness.

With respect to HIV/AIDS, the available information shows that educators are a high-risk group in several countries in sub-Saharan Africa. HIV testing of educators in Zambia found high levels of infection amongst this group, compared to other groups in the population (Badcock-Walters & Whiteside 2000; Kelly 2000; Unicef 1999). High HIV infection results were also found in educators in Kenya (Bennell 2003; Unicef 1999) as well as in Malawi and Uganda (World Bank 2002). The Sactu preliminary study into the mortality of its members revealed that out of 701 deaths, from August 1999 to May 2000, ‘a significant number were considered to be AIDS-related’ (Mannah 2001).

In South Africa the most common communicable disease is TB. In fact, South Africa ranked highest in the incidence and prevalence of TB, with 140 000 new cases estimated to have occurred in 1995. The extent to which educators are living with active TB in South Africa is not known. Educators with active TB are likely to miss school due to illness, and are also likely to die prematurely from the disease. The strategic goal is to reduce TB transmission, morbidity and mortality (while minimising the risk of anti-TB drug resistance), as part of overall efforts to reduce HIV-related morbidity and mortality in high HIV prevalence populations of South Africa.

Treating STIs is key to reducing new HIV infections. The probability of transmitting HIV during unprotected sex rises dramatically if either partner is infected with another sexually transmitted disease (STD), such as syphilis or chancroid. These infections form ulcers and sores that facilitate the transfer of the virus. Like TB, the extent to which educators contract STIs is unknown and it is vitally important to reduce STIs and therefore reduce HIV transmission. The syphilis prevalence trend among pregnant women from 1997 to 2003 shows there has been a significant decline from a high of 11% to 2.7% (DoH 2003).

The most common route of HIV transmission in South Africa is heterosexual. For this reason, condom use is an important means to prevent transmission.

The AIDS Risk Reduction Model (ARRM) uses the term stage to characterise three key markers in the process of changing one’s condom use behaviour: (1) labelling; (2) commitment; and (3) enactment. These stages indicate that different psychosocial variables may be influential at different points in the process of behaviour change, though movement through the stages is not conceived as unidirectional or irreversible.

The labelling stage involves awareness of the threat of AIDS and recognition that one’s sexual behaviour could put one at risk of HIV infection. Several variables (not all

included here) operationalise this process. First, knowledge of HIV/AIDS is important, especially information regarding sexual activities associated with HIV/AIDS transmission and preventive strategies. Second, variables specified by the Health Belief Model are likely to be influential at this stage. Believing that one is personally at risk of infection with HIV/AIDS (perceived susceptibility) and believing that the consequences of infection would be serious (perceived severity) lead to the appraisal of HIV/AIDS as a disease that is personally threatening. Acknowledging that AIDS could be a problem also implicitly involves reviewing one's past risk behaviour, including the number of sexual partners. Several cues to action might also contribute to labelling one's sexual behaviour as problematic. Cues to action refer to situational factors that might trigger preventive behaviour when appropriate beliefs are held and have been operationalised in this analysis in terms of being exposed to school-based HIV/AIDS education, being aware of AIDS-related media campaigns, knowing a person who is HIV positive or has died from AIDS, having previously been diagnosed with an STI, having had a test for HIV antibodies and received the results, and being HIV positive.

The commitment stage involves a process of decision-making that should culminate in a firm commitment to use a condom during intercourse. A key factor contributing to this decision-making process is the belief that a condom is effective in preventing HIV infection (efficacy of condom use). Self-efficacy has been operationalised in terms of people's confidence in their ability to perform a behaviour. Pregnancy-prevention issues could also influence decisions to use condoms. People may decide not to use condoms because they are using another form of contraception such as an injectable contraception. Barriers to condom use are assessed with the embarrassment to obtain condoms. The most important variable in the commitment stage is the person's intention to use condoms. Behavioural intention summarises a person's motivation regarding a particular action.

The ARRM posits a third, post-intentional phase in the change process – the enactment stage. According to the ARRM, labelling one's behaviour as problematic and making a commitment to change may not be sufficient conditions for safer sex – one must also be capable of implementing the intention to use a condom by including preparatory behaviours that people may undertake to ensure that they will ultimately perform a particular behaviour. In the context of heterosexual condom use two preparatory behaviours have been examined: condom availability and communication about sex and HIV/AIDS. Relationship status and condom use was operationalised in terms of condom use consistency with a regular or steady partner and/or non-regular or casual partner. The enactment variable also embraces contextual factors such as substance use. Apart from alcohol or drug use before sex and binge drinking, a variable measuring heavy consumption of alcohol is included on the assumption that since alcohol blurs judgement, heavy drinkers may be less likely to use condoms consistently in high-risk sexual encounters. (Sheeran, Abraham & Orbell 1999).

Some factors seem to render educators more vulnerable to HIV infection. Firstly, placements of educators could be away from home, and lack of housing compels them to leave behind their families. Secondly, their level of income is higher than that of the general population. When these factors are combined they increase the likelihood that they might engage in risky behaviour (CAER II 2000). However, it is likely that because they have higher income, they may have access to HIV testing for insurance purposes,

and hence are aware of their serostatus. Knowing one's serostatus may encourage one to avoid risky sexual behaviours. Another factor is mobility (Coombe 2000). However, there is a dearth of literature to support the proposition that educators may be at high risk for HIV due to migration resulting in high attrition. It is critical that this matter be investigated. Due to the high expected attrition rates, it is important to take into consideration ARV treatment that should slow down the attrition rate due to AIDS.

Substance abuse may be an HIV risk factor. Transmission of HIV involving drug use can be direct or indirect. Direct transmission is through the sharing of needles; indirect transmission occurs when an HIV-positive injecting drug user has unprotected sexual contact with another person. Furthermore the use of drugs, including those that are not injected, increases the risk for HIV because of their effect on decision-making and subsequent increased sexual risk taking and unplanned pregnancies. While the direct link between injecting drug use (IDU) and HIV has been established in other regions, the situation in sub-Saharan Africa has not been clear until recently (UNODC 2002).

Very little research on drug use and HIV has been done in South Africa. Small studies, largely based on facility data, indicate that drug use varies from population to population. Studies done in South Africa suggest an increase in the use of IDU amongst women and youth, but it is not known among educators. It is also suggested that the problem might be larger than previously estimated. Studies conducted as early as 1991 and 1992 investigating the relationship between IDU and HIV suggest a link between the two in South Africa (Rocha-Silva 1993). However, a population-based study showed that there is under-reporting of substance use in South Africa (Nelson Mandela/HSRC Study of HIV/AIDS 2002).

Alcohol use and abuse is often studied in the context of frequency of use, addiction and resulting consequences of abuse. Very limited work has been done to investigate the extent of alcohol use within different professions. Data that is available may be in the form of records kept by managers or employers in a process of disciplinary enquiries. It is often reported through media and anecdotal evidence that there are high rates of alcohol use and abuse among educators but our research did not yield any scientific study done in South Africa to support this assertion. Allegedly high rates of suspected substance use and abuse are often linked to the level of demand, recent changes within the education system and the stressful environment at school and in the educators' personal lives. No scientific study which links alcohol use and the other variables within the education sector could be found.

In a sample of educators in Zimbabwe, Eide, Butau and Acuda (1999) found that 38.6% of male educators and 8.2% of female educators reported drinking every day or at least weekly. In a national household survey (2002) of 6 080 youth and adults, it was found that 32.8% of South Africans consumed alcohol with 2% consuming it daily. Data broken down by sex indicated that 50.8% of males and 78.3% of females do not drink alcohol. Alcohol use was related to sexual activity, number of sexual partners and condom use. Sexually active people had a much higher rate of alcohol use when compared to secondary abstainers and reported virgins. Multiple partnerships were highest for weekly drinkers (Shisana, Zungu-Dirwayi, Simbayi & Toefy 2004).

Alcohol abuse has serious health and social consequences. In recent years alcohol has increasingly been associated with violence and traffic related trauma. In three cities (Cape

Town, Durban and Port Elizabeth) for example, 71% of violence-related trauma was found to be linked to alcohol. Road accidents have been associated with intoxication. In the three areas mentioned above, 50% of drivers involved in a traffic collision tested positive for alcohol (Parry, Bhana, Myers, Pluddemann, Flisher, Peden & Morojele 1999). Alcohol use can lead to addiction, with serious consequences for the normal functioning of the individual affected. In most cases there is an impact on responsibilities, which may impact on family and work commitments. In a survey conducted in Pretoria and in Bela-Bela in Limpopo, 12% reported injuries due to drinking, 11% said that concern had been expressed about the respondent's drinking. In this sample 14% of participants reported that they had driven under the influence of alcohol. With respect to performance 9% reported to have experienced poor performance at school or college while 3% of those employed reported experiencing poor performance at work (Parry et al. 2002).

Substance use can lead to impaired judgement which in turn results in exposure to dangerous behaviour, including an increased likelihood that the person may engage in risky behaviour that may expose them to HIV and other STDs. There is an increased focus on the link between the use of substances such as alcohol, and condom use and HIV status (Mbulaiteye, Ruberantwari, Nakiyingi, Carpenter, Kamali & Whitworth 2000). Results from a national household survey found an association between alcohol use, having multiple partners and inconsistent condom use (Shisana, Zungu-Dirwayi, Toefy & Simbayi 2004). It is also important to note that alcohol is often used with other drugs such as dagga, mandrax and even prescription medications that increase the intoxication levels considerably with potentially fatal consequences.

Community violence and the general health status of educators (independent variables in the above model) directly affect the above dependent variables. Community violence decreases productivity and learner enrolment as it has a negative effect on staff morale and job satisfaction. The general health status of educators also directly influences productivity and possibly attrition.

With regard to knowledge on the nature, transmission, and prevention of HIV/AIDS, most studies show that people aged 15 years and older in the general population in South Africa are highly aware of HIV/AIDS. Although this evidence seems most encouraging in suggesting the reach of AIDS health education campaigns, there is lack of significant sexual behavioural changes involving safer sex practices such as reducing the number of sexual partners and using condoms consistently, particularly among adults (Simbayi 2002). The younger population has very high rates of condom use (Nelson Mandela/HSRC Study of HIV/AIDS 2002).

Perceptions about one's personal vulnerability to a health threat, and one's perceived ability to reduce one's risk, are key determinants of health behaviour. Low perceived personal vulnerability is a risk factor because it reduces the motivation to take the necessary precautions. The South African research does indicate that higher perceived vulnerability and anxiety about personal risk is linked to greater intended and actual sexual behaviour change (Eaton, Flisher & Aarø 2003). In a nationally representative sample in South Africa, people were asked whether they thought they were at risk of HIV infection. The results showed that half of the respondents thought they were at risk; one in three thought they were not at risk and 15% did not know (Shisana 1999). These and other data suggest that many South Africans seem to underestimate their risk for contracting HIV, especially in some groups with high rates of sexual activity and low condom use (Eaton et al. 2003).

1.1.2 Moderators

The impact of HIV/AIDS on morale can extend to both the infected and affected in schools. HIV positive educators are likely to lose interest in furthering professional development (Coombe 2000). Issues of declining health, and increased rate of absenteeism may impact on ability to teach (Badcock-Walters et al. 2003). An assessment of the impact of AIDS in education in Zimbabwe found that the epidemic is causing anxiety and stress among infected and affected staff, posing a challenge to morale (HIV/AIDS Assessment Team in Zimbabwe 2002). A Zambian study (Baggaley, Sulwe, Chilala & Mashambe 1999) of stress factors experienced by primary school educators after a course on stress management and counselling skills, found that despite the training, many of the educators felt inadequate to counsel school learners on poverty, death and illness of parents, fellow learners and educators, teenage sex and pregnancy, violence in the home, and low self-esteem among girls.

It is also important to note that workplace policies, laws and programmes are vital in dealing with HIV/AIDS-infected individuals within the working environment. People living with HIV/AIDS have rights and it is the laws, policies and programmes (HIV destigmatisation programmes) that should protect these rights.

For a number of years, HIV activists and researchers have highlighted the role gender inequality may play in placing women at increased risk for HIV infection. Traditional gender roles held by many of the world's societies are largely responsible for the continued spread of HIV, particularly from men to women (Reproductive Health Outlook 2004). From childhood, girls and boys are expected to exhibit traditional practices, which might be harmful or protective (Shisana & Davids 2004).

Young women are most vulnerable between the ages 15–24 (UNAIDS 2004). A host of economic vulnerabilities underlie young women's inability to challenge the sexual status quo (CDC 2004). Women often have difficulty negotiating safer sex with their partners because of their lower social status, economic dependence on men, and fear of violence.

Young women and girls are often the target of older men in search of 'safe' sexual partners, including men who believe the myth that sex with a virgin will cure their infection (Matlin Spence 2001). Unequal social roles and vulnerability to men's demands also mean that women are more likely to become infected with HIV at an earlier age than men. A study done by the Centers for Disease Control and Prevention (CDC 2004) indicated that even though limited sexual power was not directly associated with HIV, it was associated with inconsistent condom use, which in turn was significantly associated with HIV infection. Women are especially vulnerable where they are powerless to negotiate the terms of sexual relations.

Given that male behaviour is one of the main determinants of HIV infection in women, the participation of men in prevention activities is clearly essential. Cultural beliefs and expectations also increase men's own vulnerability to HIV/AIDS. As a result of many cultural expectations, men have more sexual partners than women and are more likely to engage in risky behaviours.

Even though men may not know enough about sex, society expects them to be knowledgeable, which is dangerous because knowledge, though not sufficient, is vital in

HIV prevention (Shisana & Davids 2004). Prevention programmes amongst others can:

- Highlight how gender stereotypes and expectations affect both women and men, and support work to improve gender equality and equity;
- Challenge damaging notions of masculinity and other gender stereotypes;
- Encourage men to discuss sex, drug use, and HIV/AIDS; and
- Strengthen women's ability to decide when, where, and whether sex occurs. (CDC 2004)

1.1.3 Dependent variables

HIV/AIDS affects the supply of education through reduced numbers of skilled educators (Badcock-Walters & Gorgens 2001). According to Coombe (2000), educator mortality and morbidity from the epidemic deprives the education sector and learners of the sector's most experienced senior educators and managers. On the other hand, increased absenteeism because of AIDS has costly implications for quality of teaching and learning, and workload and working conditions for educators in most affected schools (Sadtu 2003).

Educators who are HIV positive, but have not developed full-blown AIDS, will not always work to their full potential (Kelly 2002). In fact, it is estimated that repeated sickness could lead to such educators losing about six months of teaching time during the infection period, before terminal illness (Kelly 2002). ARV treatment should reduce the rate of sickness as well as educator attrition. The morale of educators who are not infected is also likely to fall as they deal with sickness, and the mortality of colleagues, relatives and friends. Healthy educators will have to take on additional work to assist colleagues who are not well (Coombe 2000). Additional responsibilities will include counselling and caring for learners who are either HIV positive or affected by HIV/AIDS through a sick parent/s or relatives. These additional stresses may need to be incorporated in initial and continuous educator training and development.

Baggaley et al. (1999) highlighted in a Zambian study the importance of training in counselling and stress management skills for educators who work in environments where there are learners and educators affected and infected by HIV/AIDS. Continuous educator professional training and development also emerged as another important factor in the management of the impact of HIV at school. It is also important to note that due to attrition, new educators need to be recruited to fill the gap. Whilst the DoE is able to predict turnover related to resignations and labour market movements, the prediction of educator attrition and mortality has become much more difficult because of AIDS.

Increased levels of HIV infections, AIDS mortality and morbidity in society in general will impact on learner enrolments, through reduced number of learners and an increased drop-out rate by infected and affected learners (Badcock-Walters & Gorgens 2001). In South Africa, a reduced primary school learner enrolment over the coming decade is anticipated, because of mother-to-child transmission of HIV and lower fertility rates (Sadtu 2003) due to education of the girl child. The other reason for low enrolments at either primary or secondary school level includes the effect of the epidemic on disposable incomes as affected households will have less money for school fees, stationery, textbooks, and school uniforms, particularly given increased demand on family income for healthcare costs and funeral expenses (Coombe 2000). In terms of monitoring the effects of the epidemic on enrolment, it is also important to look at differences

in enrolments between girls and boys. Desmond, Michael and Gow (2000) as well as Marcus (1999) state that female children are more likely to be taken out of school to help with household chores and take care of the sick, especially when adult females are not available.

1.2 Rationale of the study

Much of the research conducted in South Africa on the impact of HIV/AIDS on the education sector is based on projections or conjecture; it is essential to obtain empirical evidence on self-reported measures as well as biological measures of HIV status.

The ELRC thus identified the need for a study to explore the phenomenon of educator attrition and to understand why educators may be exiting the profession. Some of the factors identified include the health status of educators (including TB), substance use or abuse, migration, staff morale and job dissatisfaction. In addition, such a study should seek to clarify the extent of demand for educators in the system, and the number of educators needed to meet this demand.

1.3 Research questions

The ELRC commissioned the HSRC to investigate the determinants of demand and supply of educators in the public education sector. Such a study is expected to answer several research questions such as:

- What is the prevalence of HIV/AIDS, TB, alcohol and drug use amongst educators in public schools, Further Education and Training (FET) colleges and students in educator training?
- Do educators have higher HIV prevalence ratios compared with the general population of people aged 25 years and older, taking into account key confounders?
- What are the factors driving the HIV and AIDS epidemic among educators?
- What is the prevalence of HIV, TB and alcohol use per district council?
- What is the attrition rate among educators, and what are the reasons for attrition (such as sickness, mortality, TB diagnosis, STIs and other endemic diseases, history of health service use, hospitalisation, alcohol and drug use and migration)?

1.4 Objectives of the study

The study is designed to yield useful information to assist the government and unions, partners in the ELRC, in planning educator supply at national, provincial and district level. The specific objectives of this study are threefold:

- To determine the prevalence of HIV and TB amongst South African educators in the General and Further Education and Training colleges by age, sex of educator, race, qualifications, locality type, learning area and the phase/ band of active teaching;
- To investigate the determinants of HIV amongst these educators by age, sex of educator, race, qualifications, locality type, learning area and the phase/ band of active teaching; and
- To determine the potential attrition rate among educators and the reasons for this.

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The objectives relating to demand and supply of educators, which focus on human resources and policies will be discussed in several forthcoming reports. This report is limited to the epidemiological profile and potential for attrition and its causes.