

# SECTION FIVE: DISCUSSION OF THE FINDINGS



- Profile of educators
- Prevalence of HIV
- Condom use
- Knowledge of HIV transmission
- Alcohol use
- Health status and health-related productivity
- Potential for attrition



## 5. DISCUSSION OF THE FINDINGS

The observed design effects (deff and deft) suggest that the study was properly designed. This observation, coupled with the high response rate (97% for questionnaires and 80% for specimen) and low coefficient of relative variation (CVrs) for nearly all the prevalence figures gives confidence on the observed findings. Below is a discussion of the findings, starting with the demographic profile of the educators, followed by a discourse on the HIV prevalence, health status, behavioural determinants, alcohol use and potential attrition of educators and reasons thereof.

### 5.1 Profile of educators

South African educators in the public sector were predominantly women, African, older than 34 years, married, and the majority had diplomas or degrees and rated themselves as not well off financially. SGBs paid a small percentage of educators. With respect to employment benefits, the majority of educators had medical aid and most had no housing subsidy. Most educators were members of unions; the rates of union membership were high regardless of race, sex of respondent, marital status and educational qualification. The rate of union membership was lower in young educators (18–24 years), those paid by SGBs and those with low income.

The dominance of females among South African educators in the public sector mirrors one aspect of gender roles in the society. In many societies, certain occupations are regarded as traditionally male, while 'caring' occupations such as nursing and teaching are traditionally female.

The majority of educators had at least ten years' teaching experience. They generally had high educational qualifications but not necessarily in the learning areas they were teaching. More teachers were teaching the foundation phase, economics and management, life orientation and technology learning areas than were trained in these areas. Many educators were trained in learning areas in which they did not teach. Specifically, there were more educators trained in foundation languages, additional languages, social sciences, mathematics and natural sciences than they were teaching, suggesting that the training is not aligned to the teaching needs. (This matter will be taken further in the human resource report to be completed in July 2005).

### 5.2 Prevalence of HIV

#### 5.2.1 Overall HIV prevalence

The observed findings suggest that HIV/AIDS seriously affects South African educators: the true figure lies somewhere between 42 809 and 47 804. When the HIV prevalence of educators was compared to the general population – controlling for age and sex – male educators had lower prevalence compared to the general population. Older female educators also had a lower HIV prevalence, but none of these differences were statistically significant, suggesting that the HIV prevalence among educators is similar to that of the general population. When comparing the educators with health professionals, the differences were also not statistically significant (12.7% among educators compared with 14.7% among professionals in the public health sector (Shisana et al. 2003). These

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results suggest that the HIV prevalence among South African public educators may reflect that of the community in which they live.

When comparing these findings with those observed in other countries in Africa, it appears that the prevalence of HIV among South African educators is much higher than that observed in Senegal (0.5%), Nigeria (5.8%) and Ghana (9.2%) but similar to that observed in Cameroon (11.8%). In all these countries except Ghana, the HIV prevalence among educators is also similar to the national HIV prevalence (Tamukong 2004). Since educators in South Africa are responsible for imparting knowledge to learners on HIV prevention as part of the life skills programme, one would have expected them to have a much lower HIV prevalence than the general population. What these findings suggest is that the life skills programme might have not contributed to sexual behaviour change among educators and hence they have a similar risk of acquiring HIV as the general population. Clearly knowledge is not sufficient to influence behaviour change. Self-efficacy in safe sex practices is crucial when attempting to understand behaviour change. This is discussed further below.

### **5.2.2 Gender differences in HIV prevalence**

Overall, the HIV prevalence did not vary by sex of the educator; this was the case even after controlling (through multiple logistic regression) for other socio-demographic, socio-economic and sexual behaviour variables. However, differences were observed when the analysis was restricted to women and men aged 25–34 years. The HIV prevalence among educators aged 25–29 (female: 21.5%, 95%CI: 17.7,25.9; male: 12.3%, 95%CI: 8.9,16.6) and those aged 30–34 (female: 24.2%, 95%CI: 22.1,26.5; male: 19.4%, 95%CI: 16.5,21.9) differ by sex and age of the educator. Clearly in the younger age groups, there were significant differences by sex of the educator. This distribution is similar to the epidemiological curve observed in the general population of South Africa (Nelson Mandela/HSRC Study of HIV/AIDS 2002). This is expected because men and women in these age groups are at the height of their reproductive period. Non-marital pregnancy was more common among African and coloured women than among whites and non-existent among Indian women educators. The study also found that the level of marital pregnancy at each reproductive age was higher than the corresponding level of non-marital pregnancy. In the absence of microbicides that kill the HIV virus while preserving the sperm, women are likely to continue to risk acquiring HIV in the process of trying to conceive, and men are also likely to continue to become infected while attempting to impregnate their partners. Given the observed findings that single people had a significantly higher rate of HIV (22.9%) than married persons (8.2%), it would be advisable for single people to avoid non-marital pregnancy.

Gender is considered to be key in containing the spread of HIV. The combination of biology, gender construction, socio-economic status and behaviour contribute to high rates of HIV in women (Shisana & Davids 2004). This study found high rates of HIV in women aged 25–34 years compared to their male counterparts. As observed earlier, women are a majority within the education sector and if more women continue to be infected this will negatively affect the supply of education in South Africa. For this reason, there is a need to understand the gender dimension that may account for high HIV prevalence in this group. First it is known that women are biologically more susceptible to HIV infection than men, mainly because of their biological make-up (International

Council of Nurses, WHO and UNAIDS 2000). Second, gender and socio-economic disparities contribute to high rates of HIV infection. These are explored further below.

Young women had a higher estimated HIV prevalence despite the observation that they reported to have lower rates of multiple sexual partners than their male counterparts. This result suggests that infection happens for women within a single sexual relationship where either trust or ignorance of HIV status of the partner may interfere with condom use. Another possibility is that while the women might be faithful to one partner the other partner may not be faithful to them as reported by men in this study. Because of gender construction in our society that disempowers women in negotiating safe sex, younger women are at increased risk of HIV. Ackerman and De Klerk (2002) also note that social factors such as the high rate of rape, the unfavourable economic position of women, and the inability to insist on condom usage make South African women unable to negotiate the timing of sex and the conditions under which it occurs. The phenomenon of men having multiple partners also suggests that women and men have different norms that determine their behaviour. Even among educated communities women's and men's sexuality is viewed differently. Having multiple partners is generally more acceptable for men than women. Traditionally a man's need for sex and the right to more than one partner have been sanctioned or accepted in many African cultures (Manuh 1998).

Other practices that are acceptable for men include age mixing of sex partners. It is acceptable for men to have younger sexual partners but this practice is frowned upon for females. The results suggest the majority of educators in this study had partners who were within ten years of their age. However when the analysis was done by sex of the respondent, the results showed that 14.1% of the men had a partner who was ten years younger than themselves compared to 0.6% of women. This result suggests that older men tend to have sex with much younger women, which implies that there are power dynamics in sexual relations which increase risk of infection among younger women. But it is also possible that older men who have younger female sexual partners increase their risk of HIV because HIV is more prevalent in younger women. Luke (2003) examined more than 45 quantitative and qualitative studies in sub-Saharan Africa and found that relationships with older partners and those that involve economic transactions are common and that these asymmetries are associated with unsafe sexual behaviours and increased risk of HIV infection. Although the reasons that adolescent girls engage in sexual relationships with older men are varied, receipt of financial benefits is a major motivation. Encouraging people to have sexual relations with partners in their age group could break this vicious cycle.

Gender disparities were evident among educators. Women educators were more advantaged than men in the following areas: they were more likely than men to get a post in the area near their families; to get a post in the city; to be married at the start of their career; less likely to be redeployed; and less likely to move to different areas in the past ten years, and when they moved they were more likely than men to move with their family.

There were areas, mainly in the economic sphere, where women were disadvantaged, which may increase their vulnerability to HIV: they were less educated than their male counterparts; they were more likely to be employed in the lower ranks and much less likely to be principals or deputy principals – hence they were more likely to earn less

money than male educators; they were less likely to have a housing subsidy or to have medical aid. The roles and responsibilities of women with regard to domestic work, carried over and above their education responsibilities, were more than those of men; specifically, more women than men were likely to take care of a family member who had HIV/AIDS or who died from AIDS.

In examining the data on behaviours that increase women's risk of HIV the study found the following: in the group with the highest HIV prevalence (persons aged 25–34 years), women were less likely than men to report having used a condom during the last sexual act. This is not a surprise since male condoms can only be worn by males and female condoms are not accessible due to cost. In addition, women were more likely than men to report not having a sexual partner and less likely to have multiple partners in the past 12 months, suggesting it is the sexual behaviour of their male partners which increases their risk for HIV infection.

### 5.2.3 Racial differences in HIV prevalence

There were major differences in HIV prevalence by race. The highest prevalence was among Africans; 16% were found to be HIV positive. The prevalence among other racial groups was less than 1%. It is important to note that the relative high CVr values for whites, coloureds and Indians (0.31, 0.29 and 0.39) resulted from the very low prevalence rate ( $r$ ) values, suggesting that the prevalence of HIV among these groups should be interpreted with caution. It could be that other race groups knew their HIV status and hence did not give a specimen for HIV testing. Further analysis showed that there was a marginally significant association between knowing own HIV status prior to this study and giving a specimen for HIV testing in the current survey. Those who did not give a specimen were slightly more likely (93%) than those who did to know their HIV status already (whether positive or negative). This observation is consistent throughout the races except among Indian/Asians. This analysis shows that the observed racial differences on HIV cannot be explained by differential willingness to give a specimen for HIV testing.

The differences in age distribution among the different racial groups may also account for why African educators had higher HIV prevalence than other racial groups. African educators were more likely to be aged between 25 and 34 years (30.3% among males and 25.5% among females) compared to coloureds (22.6% males and 21.4% females), Indian (15.5% males and 21.9% females) and whites (15.1% males and 19.1% females). African educators were more concentrated in the high HIV-risk ages of 25–34 years than other racial groups, which makes them more vulnerable to HIV because the age group of 25–34 years is when many enter serious sexual relationships, leading to reproduction.

The observed HIV prevalence in Africans is similar to that of the general population but those for whites, coloureds and Indians differ from those of the general population (Nelson Mandela/HSRC Study of HIV/AIDS 2002). In the education population study, Africans had an HIV prevalence of 16% compared to 18.4% in the general population; other racial groups had prevalences under 1%. In the general population, among people aged 15–49 years, whites had an HIV prevalence of 6.2%, coloureds 6.6% and Indians 1.8%. This suggests that exposure to risk differs substantially by race. Some of the reasons for the observed differences may lie in exposure to risk factors. Upon completion of their education Africans were more likely than other races to get jobs away from family and

also to get jobs in rural areas. Furthermore, staying away from home overnight was more common among Africans than other racial groups and this was found to be related to HIV status. The study found that there was a strong relationship between mobility and HIV prevalence, particularly migration to rural areas.

### **5.2.4 HIV status and socio-economic status**

Africans were more likely than other racial groups to belong to the low socio-economic strata: they were more likely to have no money for basic needs such as food; to earn less; to have lesser qualification; and to be on the bottom end of the teaching profession. Specifically, HIV prevalence was highest among junior educators and lowest among senior educators, education specialists and principals or deputy principals. In addition, educators who had low socio-economic status had a much higher HIV prevalence when compared to those in the high socio-economic group. The difference was substantial. Educators earning more than R132 000 per annum had a prevalence of 5.4% and those earning R60 000 or less per annum had a prevalence of 17.5%. Even after controlling for other socio-economic and sexual behaviour variables through logistic regression, income was still related to HIV status. Low socio-economic status increases vulnerability to HIV because the power to negotiate safe sex is related to economic power and also access to prevention information and healthcare is limited as a result of less income. The findings support the earlier observation that links poverty with vulnerability to HIV (Colvin 2000; Mitton 2000). Africans may be at the bottom end of the socio-economic ladder as a result of apartheid, with its bantu education system that provided inferior education to Africans.

### **5.2.5 Rural differences in HIV prevalence**

In the general population, HIV prevalence is lower in rural areas but higher in urban areas (Nelson Mandela/HSRC Study of HIV/AIDS 2002). However, in the education population the reverse was found. This is probably because educators placed in rural areas may have a higher disposable income compared to adults living in these rural areas, and given that they are less likely to move with their spouses or regular partners, they are likely to have multiple sexual partners. This matter is discussed further below.

### **5.2.6 Migration and HIV**

Migration and mobility have long been identified as risks to HIV infection and also facilitate the spread of HIV in Southern Africa (see for example, Lurie, Williams, Zuma, Mkaya-Mwamburi, Garnett, Surm, Sweat, Gittelsohn & Karim 2003). Main factors increasing the vulnerability of mobile populations are, in particular, the obligation to travel regularly and live away from spouses, and separation from socio-cultural norms that regulate behaviour in stable communities, as well as work in isolated environments with limited recreation, easy access to commercial sex workers, drugs and alcohol and a sense of anonymity which allows for more sexual freedom. These are just a few factors that might be relevant for educators who are mobile or migrating. This study found that educators residing in rural areas and those working in rural schools had higher HIV prevalence than educators residing in urban areas and teaching in urban schools. Educators whose residence was further than 10 km away from home also had a slightly higher HIV prevalence than those who travelled less than 10 km to their school, but the

differences were not significant. Teachers in poorer rural areas fall in the high-income group by local standards, possibly resulting in them being seen as a desirable group with whom to have sexual relationships. This suggests that income may be an additional risk factor: higher income earners are able also to buy sex and alcohol for example. This risk factor was also found by Shisana, Zungu-Dirwayi, Toefy, Simbayi, Malik and Zuma (2004), suggesting that the affluent groups in society may be at risk not only because of the power to buy luxuries, but also to attract risks such as multiple partners and so on.

### **5.2.7 HIV prevalence: differences by type of school: primary, secondary or combined**

Comparing the HIV status of educators at primary, combined and secondary/high schools, HIV prevalence was highest (16.5%) among educators teaching in schools which combined primary and secondary education compared to those that separated these. However, this is confounded by race and province. These combined schools are mostly found in the Eastern Cape and North West provinces, and they are located in African schools.

### **5.2.8 HIV prevalence: differences by learning area**

Investigation also extended to the extent of the problem of HIV among educators teaching different learning areas. The observed HIV prevalence among educators teaching the different learning areas was more than 10% except for technology educators whose prevalence was 7.4% and those teaching additional languages, whose prevalence was 23.3%. Most of the latter were of African origin. It is important to note that economics and management science, mathematics and science educators are as likely to be living with HIV as any other educators from other learning areas, except the two mentioned above.

### **5.2.9 HIV prevalence: differences by length of teaching experience**

Further analysis of HIV prevalence, which took into account educators' working experience, showed that the prevalence was highest among educators with the least teaching experience (0–4 and 5–9 years) and lowest among those who had been teaching for more than 15 years. As younger educators leave the system because of HIV/AIDS-related illness and older educators retire because of aging and other reasons such as health or moving to better jobs, the supply of educators will be affected.

### **5.2.10 HIV prevalence: differences by province and district**

The HIV prevalence was highest in KwaZulu-Natal and Mpumalanga and lowest in the Western Cape and Northern Cape provinces. Comparing the provincial HIV estimates derived from women in the education study with those from antenatal clinic attendees and the population data, the estimates for educators were far lower than those of pregnant women. In five provinces (KwaZulu-Natal, Mpumalanga, Free State, Eastern Cape and Limpopo) they were similar to the general population based on household surveys; the rest had far lower HIV prevalence than compared to the population in those provinces. These findings suggest that more resources for HIV prevention, treatment and care would be needed for KwaZulu-Natal and Mpumalanga to reduce the impact of HIV on the education system.

To determine the areas warranting targeted interventions it was essential to estimate HIV prevalence by district council. The results revealed that the very high HIV prevalence ( $\geq 20\%$ ) was found in only 11 out of 54 districts, located in KwaZulu-Natal (8), Mpumalanga (2) and Eastern Cape (1). The districts with the lowest HIV prevalence were Western Cape and Northern Cape where the prevalence was less than 5%. The metropolitan district councils had HIV prevalence of less than 10%. The observation that it is not all districts that have extremely high HIV prevalence helps in planning strategies for mitigating the impact of HIV/AIDS. The low prevalence in the Western Cape, Northern Cape and metropolitan councils needs to be further analysed to understand what is being done that contributes to lower HIV infections among educators in these areas. This analysis will be presented in the forthcoming July 2005 report.

### 5.3 Condom use

It is of concern that condom use seems to be common only in young educators. Similar findings have been reported in the general population (Nelson Mandela/HSRC Study of HIV/AIDS 2002). HIV is said not to discriminate against age or race; however there seem to be complacency in relation to condom use among individuals of certain age groups and race groups. This study found that generally the younger respondent male and female had high condom use compared to their older counterparts.

There are broader issues around prevention and age. Until recently HIV was associated with the youth (15–24 years), and consequently HIV prevention campaigns have generally neglected to include the older age groups, leading to an assumption that HIV is not common in this age group. Divorce, separation and early widowhood introduce new sexual partners to people who may not be aware of the dangers of unprotected sex in the era of HIV/AIDS. Unless there are interventions directed at older educators there is a possibility that there may be a rise in the HIV rates in this group. The findings in this study lend support to this hypothesis and this is supported by findings in the general population survey that found unexpectedly high HIV prevalence among the ages 40–44 (16.4%) and 45–49 (11.5%) years of age (Connolly, Shisana, Colvin & Stoker 2004).

A comparison of condom use by race showed that among African females (38.4%) and males (36.3%) condom use was higher when compared to other groups. Whites were the lowest users of condoms at last sex; among females only 9.9% used condoms and among males 10.7% reported using condoms at last sex with a regular partner. The Nelson Mandela/HSRC study of HIV/AIDS (2002) found an HIV prevalence of 6.2% among whites in South Africa, a rate that is considered high when compared to whites in other countries. If prevention messages are not targeted to the groups with low prevalence of HIV, there could be a rise in HIV rates also among these groups. This has been the case in Eastern Europe where there has been a rise in HIV rates in countries like Estonia, Latvia, the Russian Federation and Ukraine where the epidemic is driven by intravenous drug use and of late in Russia, where there is an increase in heterosexually transmitted infections (UNAIDS 2004).

An interesting finding in this study was the difference in condom use between educators working in urban and non-urban schools. Condom use was high among females and males working in non-urban schools (males 35.8% and females 37.4%) when compared

to those working in urban formal (males 25.7% and females 24.4%) and urban informal schools (males 29.8% and females 32.3%). This may be confounded by the high HIV prevalence among educators in rural areas. For example, Maharaj (2004) found in KwaZulu-Natal that condom use is much higher among urban, more educated individuals than among their rural, less educated counterparts. While the rates are still low for all the locality types, accessibility seems to be improving as individuals from urban informal and non-urban areas have higher reports of condom use. This is supported by the provincial findings. The highest condom use at last sex among educators was reported in the Eastern Cape (males 40.6% and females 41.2%) followed by KwaZulu-Natal (at 37.1% for males and 35.0% for females). Both these provinces have a large proportion of rural schools. Condom use is generally high in populations that have high HIV prevalence (as seen in the Nelson Mandela/HSRC study of HIV/AIDS [2002]). This is likely because those who are HIV positive tend to use condoms more than those who are HIV negative, as also observed in this study.

Education is often associated with condom use among men and women. Lagarde, Auvert, Chege, Sukwa, Glynn, Weiss, Akam, Laourou, Carael & Buve (2001a) found varying associations between higher education level, condom use and sex of the respondent, based on self-report. In Cameroon and Zambia, men with higher levels of education were more likely to use a condom; in Benin and Kenya it was the higher education level of the female partner that influenced the use of a condom (Lagarde et al. 2001b). Education level may also increase response to condom and prevention messages. Their findings suggest that educated women may be more empowered to negotiate condom use. A study in Kenya found that educated women were more able to negotiate condom use when compared to women with lesser education. The present study did not find highly significant differences among the different levels of education represented by the respondents. Condom use by qualification showed slight differences in the groups that had a degree, a diploma or a matriculation qualification. Condom use at last sexual act was between 30–35% for the different qualifications. The group with the highest condom use within the same range was the males with a matriculation or less at 35.5%.

Another difference was that individuals in the low ranks and income reported slightly higher rates of condom use than the other groups. When rank was taken into consideration, the study shows a negative association between condom use and position in the educational system. Similar negative associations were seen between socio-economic status and condom use. This finding may suggest that there is perception that HIV is a disease of those that do not have enough, or the poor and those groups with high income may not be taking precautions to protect themselves. A recent study on marital status found an association between wealth and the risk of HIV (Shisana, Zungu-Dirwayi, Toefy, Simbayi, Malik & Zuma 2004).

### **5.3.1 Consistency of condom use**

Without taking into account the HIV status of educators, this study found evidence that relationship status was strongly associated with rates of condom use, that is, 56% reported consistent (every time) condom use with a non-regular partner and 15% with a regular partner, while 58% reported to have never used a condom in the past 12 months with a regular and 19% with a non-regular partner. Across a number of studies Sheeran et al. (1999) found that the mean percentage of respondents who always used a condom with

their steady partner was 17, whereas the mean percentage in the case of respondents with casual partners was 30. Similarly, an average of 52% of respondents with steady partners reported never using a condom compared with 40% of respondents with casual partners.

Being HIV positive and consistently using a condom was associated with non-regular sexual partners but not with regular partners. The latter is cause for concern. Knowledge of HIV/AIDS and perceived threat of HIV infection showed small associations with condom use, which is consistent with other research (Camlin & Chimbwete 2003; Sheeran et al. 1999, Van Rossem, Meekers & Akinyemi 2001). HIV risk perception was only associated with consistent condom use with a non-regular and not a regular partner. In a large rural adult sample in Uganda, in females condom use with the last casual partner was not significantly associated with increased risk perception, while, among males who reported ever having had casual sex, they were around twice as likely to perceive themselves at risk in comparison with men without such experiences (Kengeya-Kayondo, Carpenter, Kintu, Nabaitu, Pool & Whitworth 1999).

From the seven cues to action investigated in this study most (five) showed a small correlation with condom use, as was also found in a meta-analysis study (Sheeran et al. 1999). In this study 48% of the educators indicated that they knew of persons personally who they think or know have died of AIDS in the past two years. This is much higher than among a South African women national sample of 17.3% ('Personally knew a person with HIV/AIDS') from 1998 (DoH 2002) and among a national sample from 2002 (31.0% among women and 35.2% among men) (Shisana & Simbayi 2002). In this study, multivariate analysis showed that knowing someone who had died from AIDS was significantly associated with consistent condom use with a regular but not with a non-regular sexual partner, while Camlin and Chimbwete (2003) found, in the 1998 South African Demographic and Health Survey (DHS) women sample on the basis of multivariate analysis, that personally knowing someone with HIV/AIDS was not related to condom use at last sex, suggesting that behaviour has changed since then.

Condom use efficacy, HIV risk (condom use) self-efficacy and intentions to use condoms with a new sexual partner were medium or strong predictors for consistent condom use with both regular and non-regular sexual partners, which is in support of other studies (Sheeran et al. 1999).

Alcohol or drug use did not influence or increase condom use in this study (with non-regular sexual partners), which was also found in a population-based study in Zimbabwe (Adetunji & Meekers 2001) and in six European countries (Traeen, Stigum, Hassoun, Zantedeschi & The European NEM Group 2003).

There were sex of respondent differences in condom use as found in other studies (Sheeran et al. 1999); men were more likely to report using a condom with a non-regular partner than women. A strong association was found between being single and condom use with a regular partner. Small negative associations were obtained between condom use and economic status, while other studies find small positive associations (Sheeran et al. 1999). Religious involvement had a low negative association with condom use with a steady partner, a finding supported by other studies (Sheeran et al. 1999).

#### 5.4 Knowledge of HIV transmission

This study found that a high proportion of teachers knew about HIV (nature and transmission routes), a finding that is similar to another recent study among secondary school teachers in South Africa (Peltzer & Promtussananon 2003). In another study, low HIV/AIDS knowledge was found among a rural sample of school teachers in South Africa five years ago (Peltzer 2000). In the educators' study, there was a small proportion that did not have accurate knowledge on HIV. With regard to the spread of HIV, 15.9% males and 17.7% females believed that HIV could be spread through sneezing and 9.4% males and 10.5% females indicated that they did not know if sneezing could spread HIV. On the question of HIV being transmitted through oral sex, 6.3% males and 15.6% females did not know that HIV could be transmitted through oral sex and 11.1% males and 7.0% females responded with false to this statement. A small proportion did not know that HIV can be transmitted through breastfeeding (11.6% males and 8.8% females) and 8.8% of males and 6.3% females responded false to this question. These results are of concern because teachers are tasked by the DoE to teach learners about HIV prevention. Findings from another study suggest that most educators seem to be doing so given the finding that 85.9% of 12–14 year old learners and 75.7% of the learners aged 15–24 years show that their primary source of information on HIV/AIDS over the previous year (2001) was from school (Nelson Mandela/HSRC Study of HIV/AIDS 2002). It is acknowledged that knowledge itself is not enough on its own to change sexual behaviour; however, it is important when combined with enablers such as access to condoms and self-efficacy.

#### 5.5 Alcohol use

We found that three-quarters of educators (75%) reported that they had abstained from alcohol in the past 12 months, suggesting that the use of alcohol among educators may not be as high as it is believed. These findings are lower than those reported in a similar population study in Zimbabwe. In a sample of educators, Eide et al. (1999) found that 38.6% of male educators and 8.2% of female educators reported drinking every day or at least weekly. In this study 20% of the educators were found to be low-risk drinkers, and 5.3% high risk-drinkers. The results suggest that problem drinking is limited to a small proportion of educators. Among the proportion of alcohol users who can be classified as high-risk drinkers, male educators (15%) were significantly more high-risk drinkers than female educators (0.7%). Across different races, women were less likely than male counterparts to be high-risk drinkers (below 2%). These findings are similar to those found in the general population that males are more likely to use alcohol when compared to females (Shisana, Zungu-Dirwayi, Toefy & Simbayi 2004).

Of all racial groupings, male coloured educators (18%) and male African educators (16%) reported the highest levels of high-risk alcohol use. White male educators were low-risk drinkers (71%) when compared to male educators in all other racial groups. It is of concern that coloured and African male teachers had the highest level of high-risk alcohol use. This may be a reflection of the culture of alcohol use in these communities. Age was another variable that showed an association to alcohol. It seems that the younger the educator was, the more likely they were to use alcohol in a risky way. For example, the age groups 25–44 years of male educators reported the highest levels of high-risk drinking (15.9–16.4%) as compared to 45–54 year-olds (12.5%). There is therefore a need to address issues of alcohol use among certain race groups and age groups as risky

alcohol use is associated with numerous other problems such as health problems and social difficulties and also increases vulnerability to HIV.

An interesting finding is that male educators in secondary schools had lower levels of high-risk drinking (14.2%) compared to educators in primary schools (15.9%) and combined schools (16.9%). It is not clear why this is the case. It is possible that teachers at high schools may be put under more pressure to abstain as an example to their students who are more likely to report use of alcohol to authorities compared to younger pupils. Another possibility is that teachers at high schools underreported the problem for the same reason. Locality seems to also play a role in alcohol use. Educators teaching in schools located in urban formal areas (15.5%) and in informal urban areas (23.1%) had higher high-risk drinking levels than educators teaching in schools located in non-urban or rural areas (13.7%). This can be a result of several factors, including access to alcohol, social environment and possible pressures associated with urban life. Therefore educators in urban areas, especially informal-urban areas, may need more support and improved working conditions.

Working conditions, stress and alcohol use all impact on the quality of life. High-risk drinking may influence the health status of educators, which has an impact on supply and quality of education. In this study high-risk drinkers had more days absent from work in 2003 than non-drinkers or low-risk drinkers, suggesting that heavy alcohol use contributes to absenteeism from schools.

Linked to the environment is the question of income. It is known that alcohol use is high among low-income groups and this mirrored among the educators. Low-risk drinking increases with higher levels of income, qualification and economic household situation, while high-risk drinking increases with lower income and lower qualification. The results suggest that educators with low income and qualification are potentially risky alcohol users when compared to those with high income. Alcohol use, especially risky alcohol use, is therefore an important issue to address if quality of life of the educator and education is to be improved.

### **5.6 Health status and health-related productivity**

With regard to the health status of educators, it appears that it is poorer than that of the general population, especially when one considers that 10.6% had been hospitalised in the previous 12 months, a figure that is higher than the 7% observed in the 2002 general population,<sup>1</sup> and that 75% reported that they had visited a health practitioner in the six months prior to the study. The most frequently reported diagnosis educators received in the last five years prior to the study were high blood pressure (15.6%), stomach ulcer (9.1%) and diabetes (4.5%), which are among other conditions related to stress. The low percentage of educators reporting to have TB is likely due to stigma. In a face-to-face interview, few would want to report a history of TB (and other HIV/AIDS-related illnesses) when they already know their HIV-positive status because TB is a co-factor of HIV/AIDS. It would be tantamount to disclosing their HIV status to the interviewer. This was not foreseen at the beginning of the study. This might have led to an underestimation of TB and other HIV/AIDS-related illness.

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<sup>1</sup> Further analysis of the data collected as part of the Nelson Mandela/HSRC study of HIV/AIDS (2002).

### 5.6.1 Health-related productivity

Health-related productivity measured in absenteeism and decreased presenteeism (unhealthy days) among educators is related to a range of chronic conditions. The highest burden of absenteeism in the educator labour force is probably due to the high prevalence of high blood pressure, use of tobacco, being HIV positive, stomach ulcer, arthritis or rheumatism and high-risk drinkers and associated high rates of absenteeism. In addition, low morale at the educational institution, intention to quit teaching, low job satisfaction and high job stress were significantly associated with higher number of self-rated absenteeism and decreased presenteeism (unhealthy days). However, support from different sources (in general, in terms of HIV/AIDS, financial, medical treatment) seems to help to increase health-related productivity of educators. In addition, job satisfaction should be increased and job stress decreased by addressing the different items of these scales in workplace programmes in order to further improve health related productivity.

### 5.7 Potential for attrition

A large number of educators (55%) intend to leave the education profession. There are some differences in terms of wanting to leave regarding race, sex, age group, type of school, educational level, HIV status and location of residence of educators. The number of self-rated learners in a class, the self-rated formal teaching hours per week and the type of position in the school did not influence the decision to leave. What is important is that two-thirds of technology, natural sciences, economics and management educators intend to leave, which is cause for concern. Some of the reasons for wanting to leave the education profession include low job satisfaction (in particular: lack of career advancement and recognition, the teaching conditions in terms of working hours/load/policies, and lack of discipline and respect) and job stress (in particular: problems with teaching methods and administration and problems with the educational system). If low satisfaction and job stress can be addressed, in particular, as indicated here, potential attrition can be reduced.

Violence at the educational institution seemed to have had an impact on the morale and intention to leave the education profession. Educators with a higher violence index score rated the morale at their school as lower than those with a low violence score, and educators with a higher violence score more often thought of leaving the education profession. School violence has also been identified as an continuing problem in South African schools by Zulu, Urbani, van der Merwe and van der Walt (2004), impacting deleteriously on the culture of teaching and learning in their schools.

