

PHAMSA REPORT

Mobile Vulnerabilities: Mine Labour and HIV/AIDS in Migrant-Sending Areas

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List of Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
ANC	Ante-Natal Clinic
ARV	Antiretroviral
GOS.....	Government of Swaziland
HIV	Human immunodeficiency virus
KAP.....	Knowledge, Attitude and Practice
SAMP.....	Southern African Migration Project
TEBA	The Employment Bureau of Africa
UNDP.....	United Nations Development Programme
VAC	Vulnerability Assessment Committee
ZAR.....	South African Rand

Foreword: IOM will do

Executive Summary

Numerous studies have shown how labour migration to the South African mines has had negative consequences for the health of migrants and their home communities. Particularly devastating have been the infectious diseases that are exacerbated by the long separations and family disruption that accompany migration. The spread of tuberculosis, STIs and now HIV and AIDS have been shown to be closely connected to mine migration. The relationship between mine migration and the spread of HIV to rural communities in Southern Africa remains poorly understood. Efforts to understand the linkages have been hampered by a lack of research on rural migrant-sending regions. More analysis is required of the risk behaviours and vulnerability of mine migrants and their rural partners and the responses required to reduce personal vulnerability to infection.

Two contrasting mine migrant-sending areas were chosen for this study: Mozambique and Swaziland. Both are longstanding migrant source areas for the South African mines. In the last two decades, however, Swaziland has experienced major downsizing of its mine workforce while Mozambique has not. In theory, levels of exposure and vulnerability should have remained virtually constant in Mozambique but have declined considerably in Swaziland over the course of the epidemic. The second major difference between these two areas is their proximity to the mines. Mozambican miners work at considerable distance from home and generally return only once a year for annual leave. Swazi miners, in the other hand, live close enough to the mines to return home regularly on weekends as well as annual leave. This study therefore aims to shed light on the parameters of vulnerability in mine migrant-sending areas, and to draw out any contrasts between two sending areas that have been inserted into the mine migrant labour system in different ways during the height of the HIV epidemic.

The primary objective of the research was to gain greater insight into the vulnerability to HIV and AIDS of the rural partners of migrant miners. This population has been largely ignored in the existing literature on the mining sector which tends to focus on

mineworkers themselves and their vulnerability at the place of work. The vulnerability of rural women in relationships with migrant miners is intimately connected both to their own material and social circumstances and to the behaviours and attitudes of their migrant partners. Hence, the study adopted a dual focus on migrant miners (who were all interviewed while at home) and their rural partners. Not only does this approach provide insights into the vulnerability of the rural partners, it provides an opportunity to make comparisons between the behaviour, knowledge and attitudes of the two groups and to gender relations between them.

Interviews for this study in Mozambique were conducted by researchers from the Centre for Population Studies at Eduardo Mondlane University, Maputo. In-depth interviews were conducted with 40 miners and 80 rural partners (not necessarily partners of the interviewed). The interviewees reside in three communities within the Chokwe District: Chilembene, Macarretane and the regional capital of Chokwe itself. In Swaziland, the same questionnaire was administered by University of Swaziland researchers to a total of 50 working male miners and 98 rural female partners in the southern Shiselweni district of the country.

Given their prolonged absences from home, Mozambican miners find it difficult to pursue stable, long-term relationships. All of those interviewed reported having at least one sexual partner in their lifetime, and many reported multiple partners. All but one of the miners said they were currently sexually active (having engaged in sexual intercourse in the past 12 months), not all with regular partners. Forty three percent had had sex in exchange for money or goods in the previous 12 months. The frequency of these encounters ranged from once to six times per year. Nearly 40% of the miners had engaged in sexual relations with someone who was not their spouse or primary partner.

Knowledge of the existence of HIV and AIDS is very high amongst Mozambican miners. Three-quarters felt they were at high risk of becoming infected. At the same time, not all

miners have taken active measures to ascertain their own status. Less than a third had been tested for HIV. Despite mine education programmes, these miners are not that well-informed about the disease. For example, as many as 60% thought that AIDS was curable by modern or traditional methods. The vast majority of Mozambican female partners say they worry about HIV and AIDS “a lot” (93%) and agree that it is a problem in the community. Three-quarters feel that they are at high risk of becoming infected with the disease. A higher proportion of rural partners know that AIDS is incurable (61% compared to 40% of miners). Yet, few partners had actually sought out an HIV test; only 16% of the women had been tested, all voluntarily.

The infrequency of home return of Mozambican miners considerably reduces the risk that rural partners will contract the virus from their HIV+ migrant spouses or partners. That risk would be reduced still further if miners acted on their belief in the protective value of condoms when having sexual relations with their partners at home. Despite the fact that the majority of Mozambican miners and partners view themselves as at high risk of contracting HIV and know that condom use is the primary means of protection, actual use of condoms is sporadic and low. None of the miners said they “always/almost always” use a condom during sex. Even those that did use condoms did not use them every time

All the miners interviewed said they engage in regular sexual activities with their regular partner when at home. However, the majority reported not using condoms with their partners. Most miners (80%) had not used a condom at all with their regular partner at any point in the previous year. Sixty five per cent said they had not used condoms with their regular partner over the past month. None of the miners said they “always/almost always” use a condom with their partners. Asked why they did not use condoms all the time, the majority said they did not like them or simply forgot. In other words, most miners are at risk, know they are at risk, know how to reduce the risk, yet do nothing about it. This paradox has been pointed out by previous researchers.. Condoms are freely available and their efficacy is recognized. Yet there is clearly not a culture of condom use amongst migrant miners, either on the mines or at home.

The responses of Mozambican rural partners confirm this finding. None of the women had used a condom for every sexual encounter in the previous year and only 8% said they used condoms every time they had intercourse. Fifty five per cent said they had not used condoms at all over the previous year. Eighty-five percent of the women who had sex in the month prior to the interview had not used a condom. When asked about low condom use, the majority responded that their partners objected to condom use. A further 10% said that they did not want their partners to think they were infected with HIV. Approximately half of the respondents said they would have chosen to use condoms but did not feel they had that option. Those that did use them did so sporadically. Usage is low primarily because female partners lack the power to effectively negotiate condom use.

Given the fact that most Mozambican women rarely see their migrant partners, the potential for extra-marital, or extra-relationship, affairs would be higher. Nearly one in five respondents said they had sex during this period with someone who was not their primary partner or spouse and where no financial transaction took place. In addition, women are highly dependent on the remittances sent home by their partners. As such, they remain highly vulnerable to the remittance behaviour of their partner. If the remittances are irregular or insufficient, household poverty deepens. Resort to selling sex for cash or goods is a not uncommon response. In the twelve months prior to the interview, 14% admitted having had sex in exchange for goods or money. Hence, some rural partners place themselves at increased risk through their own behaviour while their migrant partners are away. The responses of partners in rural Mozambique suggest that vulnerability in the mine-sending areas is not simply a function of the exposure of female partners to HIV through returning migrant partners.

In contrast to the Mozambican miners from Chokwe, the majority of the Swazi migrants return regularly to their rural homes. Around 60% visit their homes in Swaziland monthly, while 30% do so every other month. This was corroborated by the rural female

partners; just over half (52%) said that they see their partners on a monthly basis. Regardless of the interval between visits, the length of each visit home is usually short. The majority of home visits last for 1-2 days. As many as 40% of the migrant miners are sometimes visited by their partners at the mines.

Reasonably high levels of awareness about HIV and AIDS and means of protection were demonstrated. Unlike the Mozambican respondents, abstinence was viewed by the majority of Swazi migrants and partners as the primary means of protection. The reasons for the marked difference with Mozambique may have to do with messages preached by the very influential churches in Swaziland and by King Mswati. Interesting differences about the perceived efficacy of condoms emerged between the two target groups. Similar proportions of rural female partners in Mozambique and Swaziland believed condoms were the most effective form of protection. However, only 43% of Swazi miners viewed condom use as a major form of protection. Nearly 10% of the miners saw the protection of traditional healers as a viable means of prevention.

Self-assessment of risk showed that more Swazi women than men felt they were at high risk of infection. In dramatic contrast to Mozambican miners, nearly 80% of miners felt that they were at low or not at risk at all and only 15% thought they were at high risk. Most workers who said they are at low risk noted that it was because they were faithful to their partners. Those who said they were at high risk blamed their partners: they felt that they could not trust their partners and believed they were unfaithful. In contrast, rural Swazi partners were not nearly as positive about the risk of personal infection. Only 8% felt that there was no risk at all and over half (51%) said that they were at high risk (still lower than Mozambican women). Their sense of vulnerability came from the behaviour of their partners, not their own. Most of the women who felt they were at high risk felt this way because their partners engaged in high-risk sex with others. Nearly half (48%) said their migrant partners were not faithful and/or did not want to use condoms. Another 22% said that they were at risk because they had no idea about their partners' sexual activity while away from home. A further 12% said they did not trust their partner. In

other words, over 80% of the women who said they were at high risk blamed their migrant partners for their own vulnerability. If the migrants are to be believed, these fears are groundless. The lack of trust amongst miners and partners dominate the feelings of those who consider themselves at high risk and raises important concerns about the psychological stresses that migration puts on inter-personal relationships.

In light of the fundamentally different risk perceptions of Swazi mine migrants and rural women and the apparently high levels of mistrust between them, the survey sought to gain some insights into actual risk taking behaviour. The migrants expressed a strong inclination for multiple sexual partnerships. Only 7% had limited themselves to one lifetime partner. Another 30% said they had had sex with between 2 and 5 women and 33% with between 6 and 10 women. Twenty two percent had more than 10 partners. In sharp contrast, 35% of female partners said they only had one lifetime sexual partner and a further 32% only two. Just 14% said they had 5 or more partners and only 3% had had 10 or more. The rural partners suggested that having multiple partners is not all that common in rural mine-sending areas. Partners are vulnerable because of a system of mobility that connects them to high-risk workplace communities.

The primary contradiction that emerged is that migrant miners do not generally view themselves as a high risk group, yet admit to having multiple sexual encounters. Having multiple partners certainly increases risk but safe sex decreases it. Given their awareness of HIV and AIDS, this might imply that they take adequate precautionary measures. Such a hypothesis should, at the very least, translate into high levels of condom use. In fact, nearly three quarters of those who had had sex in the previous 30 days had not used a condom. Asked why, the majority responded either that they did not like condoms (37%) or had forgotten to use them (20%) or did not think they were necessary (17%).

A rather different pattern emerges with rural Swazi partners. Condom use is as low as that of the male migrants; 79% had not used a condom during their last sexual act.

However, unlike their male counterparts, this had very little to do with a dislike of condoms. Over half did not use condoms because their partners objected to their use. In other words, while rural Swazi partners in mine-sending areas may protect themselves through limiting the number of sexual partners, this does not render them invulnerable to infection because condom use is so low. This, as in Mozambique, increased vulnerability is rooted in gender relations of inequality with partners who reject condom use while simultaneously engaging in high risk sexual behaviour at the mines.

Several general conclusions and recommendations emerge from this study. First, awareness of HIV and AIDS, the causes and how to reduce vulnerability is generally quite good, not only amongst migrants miners (who have the benefit of workplace programmes) but in the rural communities studied. Many of the common myths about HIV/AIDS are held by only a tiny minority. Most people know what puts them at risk, know that the disease is fatal, know that ARVs are not a remedy and do not appear to have a great deal of faith in traditional healers. An exception is the rather large proportion of Mozambican miners who believed the disease was curable.

Second, Mozambican miners recognize that they are at high risk of infection while Swazi miners do not. Three quarters of Mozambican miners thought they were at “high risk” of infection compared to only 15% of Swazi miners. Since their actual behaviour, particularly at work, suggests they are, in fact, equally vulnerable, the real question is why so many Swazi miners underestimate the risk. If Swazi miners consistently used condoms, and Mozambican miners did not, this might explain the different perceptions of vulnerability. Yet the two groups of miners were equally uncommitted to regular and consistent condom use. While only a few did not use them at all, none of the miners used condoms every time they had sexual intercourse. Over 80% of Mozambican miners believe that condoms were an effective form of protection against HIV, compared with only 40% of Swazi miners. Yet the latter did not give this as a reason for not using condoms. The reasons given by both groups were familiar, and not unlike the reasons that men generally in this region give for not using condoms: they simply did not like

them (nearly 40% of both Mozambicans and Swazis), they forget (25% of Mozambicans and 28% of Swazis) or they really do not think they are necessary (17% of Swazis and 17% of Mozambicans). Clearly much greater effort needs to be made to convince miners of the necessity and efficacy of condom use not only at work but at home as well.

Third, only a minority of both Mozambican and Swazi miners know their HIV status despite the availability of voluntary testing. Again, campaigns to promote testing are needed. However, these are much less likely to be successful if miners fear the stigma associated with the disease and that they might lose their jobs if they test positive (a common fear based on what has happened on some mines in the past). The greater availability of ARVs on the mines and a clearly understood policy on employer attitudes would undoubtedly assist improving incentives for voluntary testing.

Fourth, this study confirmed that Swazi and Mozambican miners are long-serving career workers rather than casual or temporary migrants.. As long as their health holds and their mine does not close, they keep their jobs. This means that the mine workforce has aged dramatically in the last twenty years. Miners are no longer young men. Most are in their 40s and 50s and have many years of service on the mines. They are heads of households, supporting numerous children and adults. Their remittances are the primary source of income and means of survival to their rural households. This means that the potential impact of a miner getting HIV is enormous.

Fifth,, advancing age and maturity do not appear to have had any significant mitigating impact on the high risk behaviour of miners. Many miners not only appear to have additional sexual partners when they are at work but they frequent commercial sex-workers at hotspots around the mines. The impact of extended separation and the high-risk living and working environment that has always characterized the mines, continues to facilitate, if not encourage, high-risk behaviours that greatly increase the chances of HIV transmission.

Sixth, a basic hypothesis of this study was that changes in the nature of migration patterns affect the risk behaviour of miners. Here the Mozambican and Swazi cases provide a valuable point of comparison. Mozambican miners continue in much the same old pattern, tending to return home only once a year for annual leave. Swazi miners, in contrast, visit home at least once a month or every month or two. Yet, as far as these studies could ascertain, both engage in equally risky behaviour while they are away at work. Frequency of return home (at least at the current levels of home visits) therefore does not appear to have any mitigating influence on the sexual practices of mineworkers. What it clearly does do is place Swazi women at greater personal risk than their Mozambican counterparts.

Seventh, the primary objective of these studies was to examine the perceptions and attitudes of the rural partners of miners and to shed light on the vulnerability profile of migrant-sending areas. Both the Mozambican and Swazi women interviewed certainly felt that they were highly vulnerable to HIV. They both also believed that condom use was an effective means of reducing vulnerability. But in Swaziland, the abstinence message has clearly made greater headway than in Mozambique. However, while abstinence was seen as an important way to significantly reduce or eliminate risk, few of the migrant partners do abstain from sex. Although the evidence is circumstantial, the comparison between Mozambican and Swazi women suggests that the Mozambican partners may be more prone to forming other relationships outside their primary relationship with their usually absent partner for a host of different reasons including emotional and financial support. . In some cases, increased poverty from a reduced flow of remittances (because of the demands of a second household in South Africa) may force some rural women to seek support through other relationships.

Eight, condom use does not seem to be a very effective means of reducing risk in rural sending areas as condom use is low. None of the informants mentioned non-availability as an obstacle to use. However, while migrant men give “pragmatic” reasons related to sexual pleasure, necessity and forgetfulness, women’s use, or rather lack of use, of

condoms has virtually nothing to do with personal preference. Partners of migrant miners wish to use condoms. Their inability to do so with the frequency and consistency that they would like is related to the preferences and demands of men. Were a woman to demand or request condom use of their migrant partner, this is often tantamount to an accusation of infidelity. Both are perfectly aware that this happens. But any such accusation or imputation by a disempowered rural partner is likely to lead to reprisals or even violence.

In conclusion, several key issues need to be addressed in order to try and reduce the vulnerability to infection that currently pervades mine-sending areas outside South Africa. These include (a) the fact that mine migrants remain highly vulnerable to infection and that workplace prevention are not having their desired effect or may well be irrelevant. These need to be evaluated and made more effective; (b) the potential importance of radio as a tool for communicating actionable messages and information about the disease in migrant settings in both origin and destination areas is clear. In both Mozambique and Swaziland, the main source of knowledge about HIV and AIDS is not workplace or community programmes nor peer education nor the medical community, but radio. This demonstrates the critical importance and potential of radio as the medium for education. What remains unclear, however, is whether airwave knowledge is being translated into behavioural change; and (c) the major obstacle to change, and to reducing the vulnerability of women within mine sending areas, continues to be unequal gender relations. Women still find it extremely difficult, in the face of male intransigence, to protect themselves adequately from infection. Empowerment of rural women remains a critical objective, even at this advanced stage of the epidemic.

For decades, the system of labour migration to the South African mines has impacted on the health of migrant miners and, by extension, their partners in mine-sending areas in neighbouring countries. Numerous studies have shown how labour migration to the mines has had negative consequences for the health of migrants and their home communities (Wilson 1972; Packard 1989; Katz 1994; Marks 2006). Particularly devastating have been the infectious diseases that are largely a consequence of the long separations and family disruption that accompany migration. The spread of tuberculosis and STIs in particular have been shown to be a major consequence of mine migration (Packard 1989; Jochelson 2001). To this list must now be added HIV/AIDS (Marks 2002). In the late 1980s, rates of HIV prevalence amongst migrant miners were less than 1% (Jochelson et al. 1991). Only ten years later, they were over 25% and climbing (Gouws and Abdool Karim 2005: 60). Catherine Campbell and colleagues have documented in detail the ways in which absence from home, a culture of macho male sexuality, the ready availability of casual and commercial sex and the constant fear and personal experience of death and dismemberment underground have placed miners at very high risk of infection (Campbell 2003, 2004; Williams et al 2003).

The relationship between migration and the spread of HIV to rural communities in Southern Africa remains imperfectly understood (Crush et al 2005; Lurie 2005). Efforts to understand the linkages have been hampered by a lack of research on rural migrant-sending regions. As a result, a somewhat simplistic and unilinear explanatory model evolved in which migrants leave for the mines, engage in high-risk behaviour, contract the virus and return to infect their unprotected rural partners. In the case of Mozambique, for example, Collins argues that the higher rate of HIV prevalence in the centre and south (compared to other parts of the country) can be directly related to the influence of migrant labour to the South African mines:

Rising prevalence levels in this region in part reflect increased commercial and migrant mineworker travel south since the 1992 peace agreement. An estimated 50,000 Mozambicans, most from the southern and central regions, currently work in South African mines, where HIV rates are very high. Many return home on annual leave infected with HIV and infect their wives (Collins 2006:5).

According to this stereotypical model, the disease has been spread to rural areas purely by infected (largely male) migrants. However, there are likely to be many mediating factors affecting the vulnerability of rural partners of mineworkers to infection. These include the frequency and duration of a migrant's return home between and during contracts, and gender relations between men and women in the rural migrant sending areas. The latter would influence the degree to which, and with what consequences, rural women can take measures to protect themselves against infection.

Miners have also, at least in recent years, been exposed to prevention messages while at work. This would suggest high levels of awareness about HIV/AIDS though perhaps still not sufficient, as Campbell (2004) has suggested, to overcome the sexualized mine culture that continues to put miners at risk (Campbell 2004). HIV prevalence amongst mineworkers hovers around 25-30% and is non age-specific. Commercial sex-workers who operate around the mines have been shown to have HIV prevalence rates of 60-70% (Campbell et al. 1998). Do rural partners have similar access to information about HIV prevention strategies? How much knowledge do they have and how does this translate into behaviour change? These are key questions which can fundamentally affect the vulnerability of female spouses in rural areas.

The spread of HIV in Southern Africa has coincided with major downsizing and retrenchment in the mining industry (Crush et al. 2005). To the extent that migrants are precluded from working any longer on the mines, it may be hypothesized that they are actually less vulnerable to infection since they are no longer exposed to the high-risk situations on the mines. By extension, the residents of migrant-sending areas might also be at reduced risk. However, evidence shows that as the mines retrench and unemployment increases, more women are migrating in search of work (Crush and Ulicki

2007). As a result, the female members of the households of former mine migrants are themselves potentially becoming more vulnerable to HIV as the socio-economic conditions in which migrant women live and work can increase their vulnerability.

Recent research undertaken in migrant-sending areas in the KwaZulu Natal province of South Africa has challenged the dominant unilinear, deterministic model of transmission from migrants to rural partners (Lurie et al. 2003a; Lurie et al. 2003b; Zuma et al. 2005). The study compared “migrant couples” (in which at least one of the partners migrates for work) to “non-migrant couples and found that the former were more likely to have one or both partners infected with HIV (35% versus 19%). These couples were also more likely to be “HIV discordant” (27% versus 15%) i.e. one partner is infected and the other not. The research also showed that amongst couples in which only one partner was infected, 30% of the time the migrant was HIV-negative and the rural partner HIV positive. Clearly, an HIV-positive woman whose migrant spouse is not infected must have been infected by someone else. This suggests that a more nuanced understanding is needed of the risk behaviours of both migrants and their rural partners and the responses required to reduce personal vulnerability to infection. There is thus a need for more work on regions which predominantly or exclusively serve as source regions for mine labour.

Two contrasting mine-sending areas were chosen for this study: Mozambique and Swaziland. Both are longstanding migrant source areas for the South African mines (Table 1) (Crush 1987; Harries 1994). In the last two decades, however, Swaziland has experienced major downsizing of its mine workforce while Mozambique has not. As Table 2 shows, there were more Mozambican miners in 2003 than there were in 1990. Over the same time period, the mine workforce from Swaziland has been cut in half. In theory, at least, levels of exposure and vulnerability should have remained virtually constant in Mozambique but have declined considerably in Swaziland over the course of the epidemic.

Can we merge two tables? Do we not have data on other countries from 1985 onwards?

Table 1: Migrant Labour on South African Mines, 1920-1985											
Year	Angola	Bots.	Lesotho	Malawi	Moz.	Swaz.	Tanz.	Zam.	Zim.	Other	Total

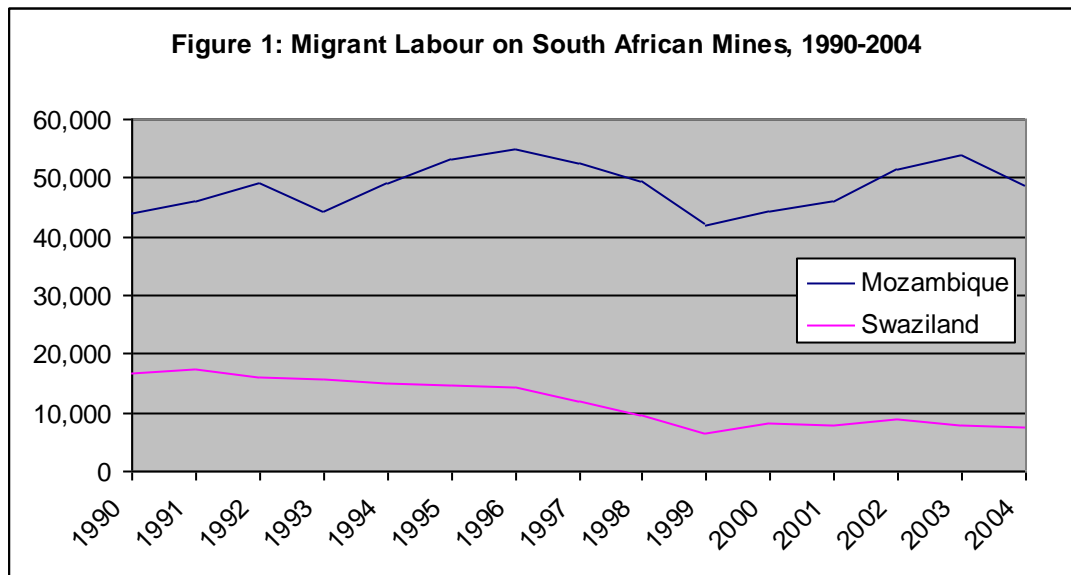
1920	0	2112	10439	354	77921	3449	0	12	179	5484	99950
1925	0	2547	14256	136	73210	3999	0	4	68	14	94234
1930	0	3151	22306	0	77828	4345	183	0	44	5	107862
1935	0	7505	34788	49	62576	6865	109	570	27	9	112498
1940	698	14427	52044	8037	74693	7152	0	2725	8112	70	167958
1945	8711	10102	36414	4973	78588	5688	1461	27	8301	4732	158997
1950	9767	12390	34467	7831	86246	6619	5495	3102	2073	4826	172816
1955	8801	14195	36332	12407	99449	6682	8758	3849	162	2299	192934
1960	12364	21404	48842	21934	101733	6623	14025	5292	747	844	233808
1965	11169	23630	54819	38580	89191	5580	404	5898	653	2686	232610
1970	4125	20461	63988	78492	93203	6269	0	0	3	972	267513
1975	3431	20291	78114	27904	97216	8391	0	0	2485	12	237844
1980	5	17763	96309	13569	39539	8090	0	0	5770	1404	182449
1985	-	18079	97639	16849	50126	12365	0	0	0	4	195062

Source: TEBA (Employment Bureau for Africa)

Table 2: Mozambican and Swazi Migrant Labour on South African Mines, 1990-2004

Year	Mozambique	Swaziland	Total
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1990	43,951	16,618	406,192
1991	46,102	17,291	377,405
1992	49,022	16,157	355,083
1993	44,255	15,802	334,368
1994	49,250	15,101	333,414
1995	53,321	14,611	287,593
1996	54,891	14,241	285,987
1997	52,520	11,980	270,793
1998	49,507	9,518	226,869
1999	42,002	6,308	194,567
2000	44,245	8,079	203,315
2001	45,893	7,840	207,233
2002	51,355	8,697	234,257
2003	53,828	7,970	232,919
2004	48,918	7,598	229,548
<i>Source: TEBA</i>			



Declining employment in the industry as a whole has had a major impact on migrant behaviour (Tshitereke 2004). Miners who do not agree to work continuously now lose their jobs. Most Mozambican miners are therefore long-serving migrants who normally only return home for a leave period of 4-6 weeks a year. While home visits at other times are possible, distance and cost makes regular visits less feasible than, say, in Lesotho or Swaziland. Because they see their partners less often, the risk of infection is

probably lower for partners in Mozambican mine-sending areas. This may, in part, explain why prevalence in mine-sending areas in Mozambique is still lower than in mine-sending regions of other countries.

However, retrenchments could theoretically heighten vulnerability in mine-sending areas by increasing levels of rural poverty as well as forcing female partners to migrate themselves. The South African gold mines have lost over 150,000 jobs since 1990 (with employment levels dropping from 406,000 in 1990 to 230,000 in 2004). These massive job losses have profoundly impacted on migrant-sending communities in neighbouring countries and have exacerbated already high levels of unemployment (Crush et al. 2004). Of particular importance is the loss of remittances to households and communities in migrant-sending regions. Many families are dependent upon remittances for daily expenses related to food, education and health-care (Pendleton et al. 2006). When remittances are reduced, or disappear entirely, families become increasingly vulnerable to immuno-deficiencies that can increase their vulnerability to disease, or limit their ability to fend off diseases that they already have (Grant et al. 2007). In addition, women are more likely to engage in high-risk behaviour in order to try and make ends meet. This new economic reality has forced a number of women to enter the workforce and engage in forms of cross-border trade to supplement household income. This labour movement complicates efforts to control the spread of HIV, especially as some women may choose or be coerced into entering the sex trade.

This study therefore focuses on two contrasting mine-sending areas. These study areas are not only different in the geographical and cultural sense but they have contrasting experiences with the mine labour system over the last two decades. One (Swaziland) has been in decline as a source of mine migrants; the other (Mozambique) is still a relatively stable source of mine migrants. The study therefore aims not only to shed light on the parameters of vulnerability in mine sending areas, but to draw out any contrasts that might exist between two mine-sending area that have been inserted into the mine migrant labour system in different ways during the height of the HIV epidemic.

The primary objective of the research was to gain greater insight into the vulnerability to HIV and AIDS of the rural partners of migrant miners. This population

has been largely ignored in the existing literature on the mining sector which tends to focus on mineworkers themselves and their vulnerability at the place of work. The research was planned by a working group which included Krista House, Mark Lurie, Hamilton Simelane and Jonathan Crush. The working group first developed and tested a common questionnaire for use in both sites. As the project developed, however, it became clear that the vulnerability of rural women was intimately connected both to their own material and social circumstances and to the behaviours and attitudes of their migrant partners. These behaviours and attitudes could not be assumed. In the end, the research confirmed much of the existing literature on migrant miners but this could not be assumed at the outset. Hence, a twin focus developed on migrant miners (who were all interviewed while at home) and their rural partners. Not only did this approach provide insights into the vulnerability of the rural partners, it also provided an opportunity to make comparisons between the behaviour, knowledge and attitudes of the two groups. In other words, the research permitted two axes of comparison: first, between two different mine-sending areas, and second, between migrant men and their rural partners.

HIV Vulnerability and Mine Labour Migration in Chokwe, Mozambique

2.0 HIV/AIDS in Mozambique

After a slow start, HIV/AIDS is now spreading rapidly in Mozambique. In 2004, the national infection rate of Mozambique was estimated at 16.2% (still much lower than the national prevalence rates in countries such as Botswana and Swaziland). An estimated 500 new infections occur each day (Collins 2006: 2). As in the rest of the region, the HIV epidemic in Mozambique has particularly affected women. The prevalence rate for young women between the ages of 15 and 19 is twice that of young men. Women between 20 and 24 are four times more likely to have HIV than their male peers (Waterhouse et al. 2004: 7). As Table 2.1 shows, rates in the North are much lower than in the Centre and South (Arndt 2003: 39). Regional differences within the country in HIV prevalence and duration of the epidemic have been related to internal and external population movements (Foreit et al. 2001).

Table 2.1: Estimated HIV Prevalence Rates (adult population)			
Region	Province	Estimated Prevalence Rates (2002)	
		Provincial %	Regional %
South	Maputo City	13	13.2
	Maputo Province	14.3	
	Gaza	16	
	Inhambane	9.6	
Center	Sofala	18.7	16.5
	Manica	21.1	
	Tete	19.8	
	Zambezia	12.7	
North	Nampula	5.2	5.7
	Niassa	6.8	
	Cabo Delgado	6.4	
Mozambique National			12.2

Sources: Ministry of Health (2002) and Ministry of Health et al. (2001), based on observations from 20 health posts, some of them rural (Arndt 2003: 2)

Beckmann and Rai (2005: 4) cite a number of overlapping mobility-related factors deemed responsible for the rapid spread of HIV/AIDS in Mozambique:

The epidemic has been fuelled by the return of refugees from neighbouring countries, the introduction of peacekeeping forces from high-prevalence countries, and a marked increase in cross-border trade. The impact of the movement of troops from West Africa is thought to be part of the cause of the spread of HIV-2 in Mozambique, as military personnel have higher prevalence rates and tend to exhibit risky behaviour. The railway line that passes by Gaza links Mozambique with South Africa and Zimbabwe. During the war in the 1980s, the trains transporting relief food were guarded by soldiers from the latter countries. As a result of the dire conditions, prostitution increased in that region. In southern Mozambique, miners with relatively high wages meet the staggering poverty of rural women struggling to make a living. This combination of poverty and inequality greatly favours the spread of HIV (Beckmann and Rai 2005).

A 2002 UNESCO study suggested that a number of socio-cultural factors were also facilitating the spread of HIV including initiation rites, polygamous marriages, religious practices, death rites, taboos, witchcraft and commercial sex (Bukali de Graca 2002: 17).

Access to health care in rural Mozambique is particularly poor. Less than 40% of the population has access to basic services. Poor transportation and communications infrastructure mean that many areas of the country cannot access services when needed. Beckman and Rai (2005) found that the services that are provided in Mozambique are often inadequate and provide questionable information and educational services. As they conclude, “the level of knowledge of AIDS is very low in all ranks of health-care workers. Most health workers are unable to provide complete information to patients and are not trained to treat opportunistic infections” (Beckman and Rai 2005: 12).

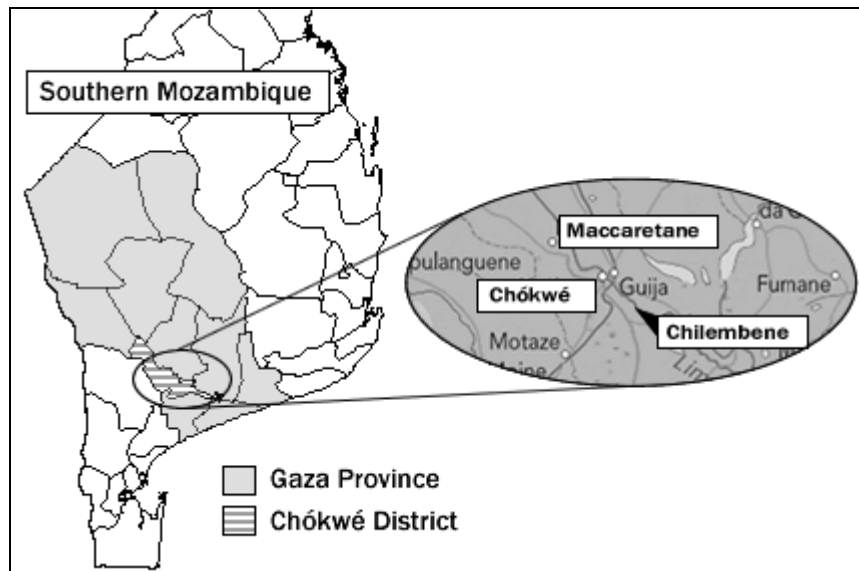
2.2 Chokwe District

The vast majority of Mozambican mine migrants have always come from the South of the country (First, 1983). Approximately 40% of miners currently come from Gaza

Province, 28% from Inhambane and 27% from Maputo. A SAMP study in the late 1990s showed that within Gaza Province, 27% of miners were from Xai Xai District, 21% from Chokwe District, 20% from Chibuto, 15% from Manjacaze and 9% from Bilene/Macia (de Vletter 1998). The area chosen for this study was the Chokwe District of Gaza Province (Figure 1). This district was selected because of its well-established historical ties to mine migration to South Africa and its contemporary importance as a mine-sending area (de Vletter 2000). Chokwe district currently supplies approximately 4,000 miners to the South African mining industry, second in importance only to Xai Xai. The HIV prevalence rate for the Chokwe district was estimated by the Ministry of Health to be 22% of all adults in 2003 (Waterhouse et al. 2004: 12).

Interviews for this study were conducted by researchers from the SAMP partner in Mozambique, the Centre for Population Studies at Eduardo Mondlane University, Maputo. In-depth interviews were conducted with 40 miners and 80 rural partners (not necessarily partners of the actual migrants interviewed). The interviewees reside in three communities within the Chokwe District: Chilembene, Macarretane and the regional capital of Chokwe itself. Interviewees were selected using a snowball sampling method.

Figure 2.1: Map of Gaza Province and Chokwe District



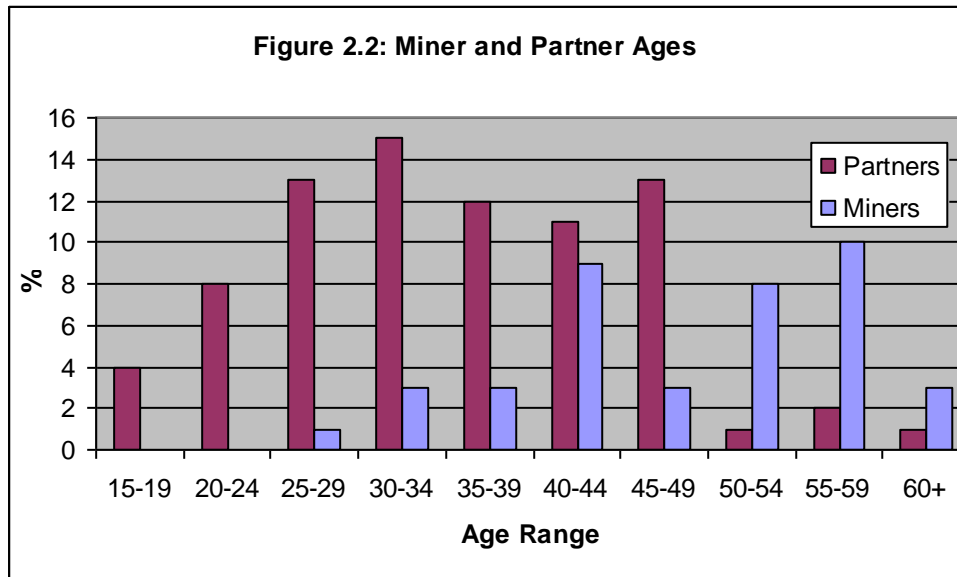
The miners interviewed in the study had an average age of 47 and had worked on the mines for an average of 22 years. This confirms other observations that migrant

miners are increasingly middle-aged, long-term, career workers (Crush et al 2001). They are also generally not formally educated. Around 70% of the miners had only completed primary schooling. Some 15% had not been to school at all. Only one of the miners interviewed was single while the remainder were either married (50%) or cohabitating (48%). Only three of the miners had been married for less than ten years, again reflecting the age of the sample. More of the rural partners (61%) said they were co-habiting while only a third (32%) were formally married. Five of the partners were widows.

Rural partners are heavily dependent on migrant miners for income. The majority (74%) said they earned less than 1,000,000 Mts per month and therefore contribute little to household income (Table 2.2). Ninety percent listed their occupation as *camponesa* (rural agriculturalist). Most miners earn over 3,000,000 Mts per month. These findings are confirmed by other studies on remittances which show that remitted funds and goods are integral to household income and survival in migrant-sending Mozambique (de Vletter 2006). The death or disability of a miner therefore has very serious ramifications for the rural household. The number of people affected will also be large, given the size of most mine migrant-sending households. All of the miners interviewed have large numbers of dependents, with the average supporting nine other people. Of these, on average, 5.4 are children and 3.6 are adults. Five of the miners said they had 15 or more dependents. The large number of dependents reported could be indicative both of the higher average age of most mineworkers and the impact of HIV and AIDS in the area.

Income level (mts)	Male Miners		Female Partners	
	No.	%	No.	%
Less than 500,000 (23 USD)	5	12.5	45	56.25
500,000 to 1,000,000	2	5	14	17.5
1,000,001 to 1,500,000	4	10	6	7.5
1,500,001 to 2,000,000	0	0	3	3.75
2,000,001 to 2,500,000	0	0	2	2.5
2,500,001 to 3,000,000	3	7.5	1	1.25
More than 3,000,000 (135 USD)	24	60	2	2.5
Don't know	2	5	7	8.75
Total	40	100	80	100

1 USD = 22,200 Mozambican Metical (2004 Monthly average)



The study shows a significant age differential between migrant miners and rural partners. As Figure 2.2 shows, there are very few miners (7%) under the age of 40 compared with the majority of partners (52%). Only 4% of the miners are in their twenties, compared with 21% of partners. There were no miners under 25, compared with 12% of partners. The pattern of younger women marrying older men is not unusual in Mozambique. However, age differences feed into gendered power imbalances, particularly when the male is also the primary or sole breadwinner as well (see below).

There is little evidence from this study that the partners of migrant miners are particularly mobile. Just over half said they had never moved while 31% had lived in only two locations. Eleven percent of the female respondents said they had moved at least twice. Only 6% were unsure of the number of places they had lived, suggesting that they had themselves been migrants.

Consistent with our hypothesis about the migrant behaviour of Mozambican miners (see Introduction), the male migrants interviewed in this sample stay away from home for long periods and return home only for short annual vacations. In the average year, the migrant will spend 10-11 months a year away from home and only rarely visit during that time. This pattern continues year after year in the absence of injury or

debilitating disease. All but two of the miners were on permanent contracts and almost all said they live in mine hostels. When asked how long it had been since they had last seen their absent migrant partners, around three-quarters said they see their partner just once a year or even less frequently. Some 17% said the last visit was more than a year ago. Only 24% had seen their partners in recent weeks.

The pursuit of a stable and enduring relationship is extremely difficult under such circumstances. All of those interviewed reported having at least one sexual partner in their lifetime, and many reported multiple partners. All but one of the miners said they were currently sexually active (having engaged in sexual intercourse in the past 12 months), not all with regular partners. Forty three percent of the group of male miners said they had had sex with women who requested money or goods in exchange in the previous 12 months. The frequency of these encounters ranged from once to six times per year. Nearly 40% of the miners said they had engaged in sexual relations with someone who was not their spouse or primary partner.

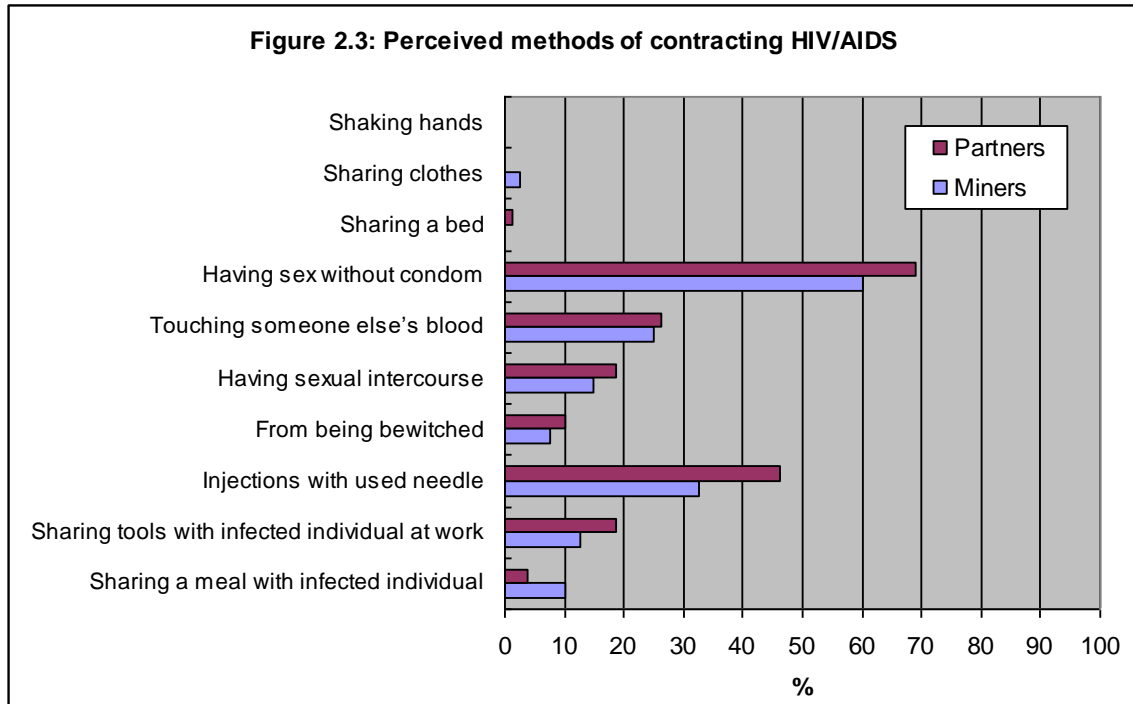
2.3 HIV vulnerability of migrants and their spouses

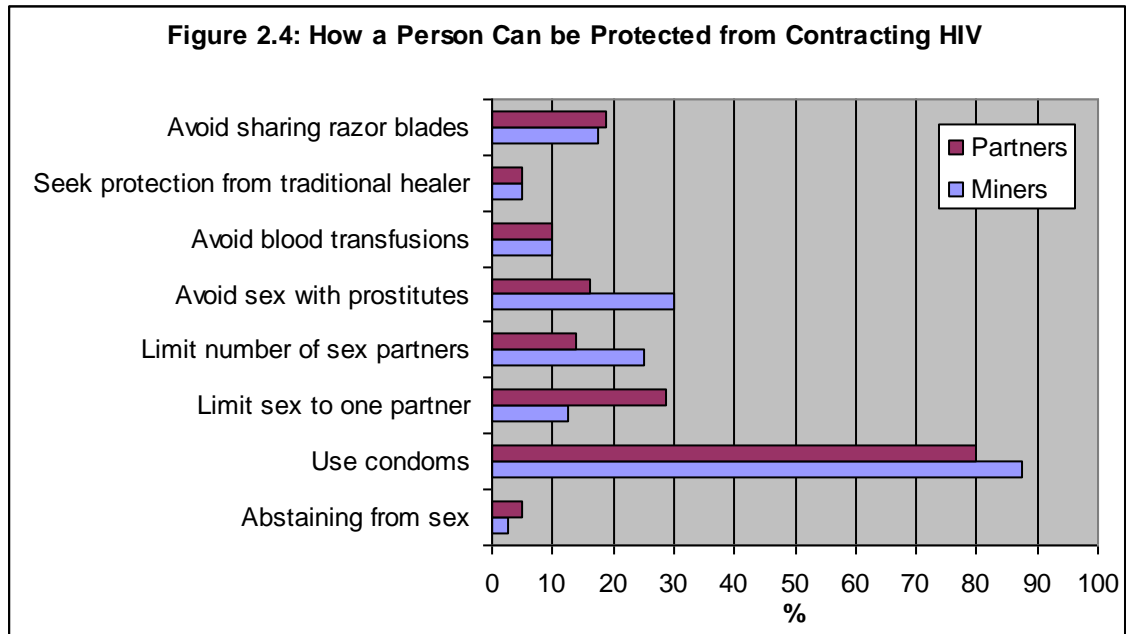
Knowledge and perception of risk

Knowledge of the existence of HIV and AIDS is very high amongst miners. Most (90%) not only said they felt that HIV and AIDS was a problem at the mines but that they worry about the disease “a lot.” Three-quarters felt they were at high risk of becoming infected and only three of the respondents felt they were not at risk. At the same time, not all miners have taken active measures to ascertain their own status. Less than a third of the miners had ever been tested for HIV (30%) and just over half of those (17% of total) had voluntarily sought testing. Despite widespread mine education programmes, these miners are not that well-informed about the disease. For example, as many as 60% thought that AIDS was curable. Of these, 22% claimed that modern medicine held a cure and 15% cited traditional medicine.

The vast majority of the female partners also worry about HIV/AIDS “a lot” (93%) and 94% agree that it is a problem in the community. Three-quarters feel that they are at high risk of becoming infected with the disease. Only one individual felt she was at no risk at all. A higher proportion of rural partners also know that AIDS is incurable

(61% compared to 40% of miners). Yet, few partners had actually sought out an HIV test; only 16% of the women had been tested, all voluntarily. Knowledge that unprotected sex was the major means of transmission was also far from universal (60% of respondents, actually lower than the rural partners at 69%) (Figure 2.3). Knowledge of the importance of using condoms as protection against HIV was higher (Figure 2.4).





In theory, given the existence of HIV and AIDS education programmes on mines, miners ought to be better informed about HIV and AIDS than their Mozambican partners. This assumption proved false. As Figure 2.4 shows, rural women were slightly better informed about the risks of sharing razor blades or not limiting sex to one partner. Nearly 30% of women saw fidelity as a means of protection compared with only 12% of men. A third of the men said that avoiding sex with sex workers was important, while only 16% of women thought the same.

When asked to identify the symptoms associated with HIV and AIDS, there were distinct differences between the levels of knowledge and understanding between miners and rural partners. Less than a third of the miners were able to identify any symptoms associated with HIV and AIDS. The symptoms that were identified by the others were non-specific and could reflect almost any common disease: cough, loss of weight or appetite and fever. The rural partners fared somewhat better on this question although as many as half admitted they did not know any of the symptoms of HIV and AIDS. The most commonly listed symptoms listed by the partners were diarrhea, skin boils or lesions, weight loss, recurrent vomiting and hair loss. Many of the spouses listed multiple symptoms, often three or more per respondent. The distinction between miners

and their spouses is dramatic and may be because residents of Chokwe are far more likely to encounter people with AIDS symptoms on a daily basis (McKenzie 2006).

Personal exposure to people with AIDS is clearly a factor in raising awareness and understanding of HIV and AIDS. Only a small number of miners admitted having a close friend living with HIV and AIDS, and only one said they knew of a close relative with the disease. Only a quarter of the miners acknowledged that they knew someone with AIDS. More of the partners knew someone living with HIV and AIDS. They were more likely to know of a close relative with the disease than a close friend. Nine percent had a close friend with HIV/AIDS and 13% had a close relative with the disease.

Behaviour

Despite the fact that the majority of miners and partners view themselves as at risk of contracting HIV and know that condom use is the primary means of protection, actual use of condoms appears sporadic and low. None of the miners said they “always/almost always”, use a condom during sex. Even those that did use condoms did not use them every time they have sex. One miner said he had used a condom only once during the previous month and yet said he had had 10 sexual encounters with his regular partner. Another had used a condom for only 4 of his 22 encounters during the last month. When asked why they did not use condoms all the time, the largest number (38%) said they did not like them while 25% said that they simply forgot. Another 15% did not think condom use was necessary. None of the miners said that access or cost was a deterrent to using condoms.

Reasons for not using a condom the 'last time'				
	Total	%	Excluding those who had used a condom	%
Not available	0	0	0	0
Too expensive	0	0	0	0
Partner objected	3	7.5	3	9
Don't like them	15	37.5	15	45
Used another form of contraceptive	3	7.5	0	9

Didn't think it was necessary	6	15	5	15
Didn't think about it	9	22.5	9	27
Other	1	2.5	1	3
<i>Note: Multiple responses were allowed</i>				

In other words, most miners are at risk, know they are at risk, know how to reduce the risk, yet do nothing about it. This paradox has been pointed out by previous researchers (Campbell et al. 1998; MacPhail and Campbell 2001). Condoms are freely available and their efficacy is recognized. Yet there is clearly not a culture of condom use amongst miners. The stated reasons given for non-use relate primarily to personal taste and forgetfulness. Campbell (2003: 156) also found that migrant mine workers display:

.... a continued commitment to a macho notion of masculinity that undermined the likelihood of condom use... Several miners commented that the condoms provided by the mines could not be trusted because they were of a poor quality and had often passed their 'use by' dates. Some suggested that it was these very condoms that were causing the HIV infection.

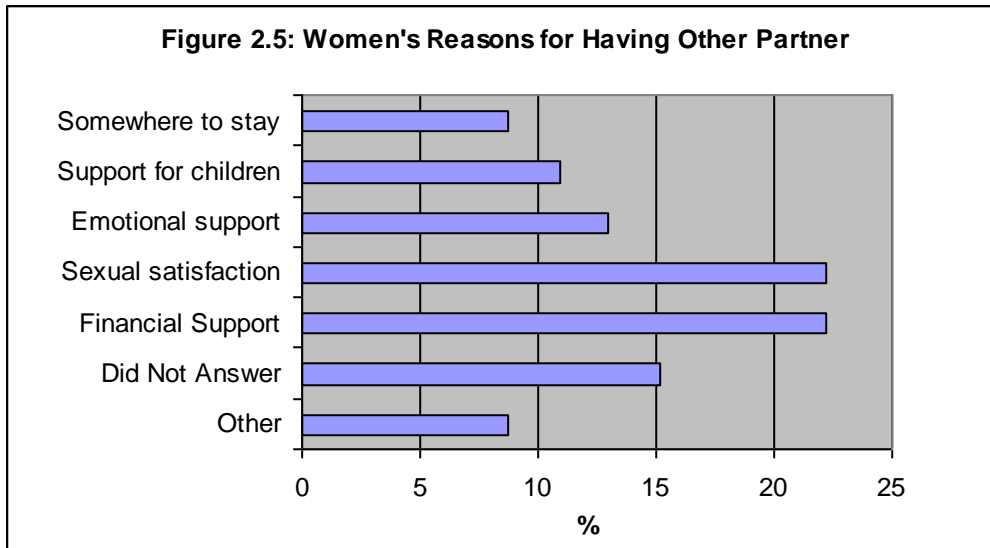
As argued above, the infrequency of home return of Mozambican miners considerably reduces the risk that rural partners will contract the virus from their HIV+ migrant spouses or partners. That risk would be reduced still further if miners acted on their belief in the protective value of condoms when having sexual relations with their partners at home. All the miners interviewed said they engage in regular sexual activities with their regular partner when at home. However, the majority reported not using condoms with their partners. Most miners (80%) had not used a condom at all with their regular partner at any point in the previous year. Sixty five per cent said they had not used condoms with their regular partner over the past month. None of the miners said they "always/almost always" use a condom with their partners.

The responses of rural partners confirm this finding. None of the women had used a condom for every sexual encounter in the previous year and only 8% said they used condoms every time they had intercourse. Fifty five per cent said they had not used

condoms at all over the previous year. Eighty-five percent of the women who had sex in the month prior to the interview had not used a condom. When asked about low condom use, just under half (46%) responded that their partners objected to condom use. A further 10% said that they did not want their partners to think they were infected with HIV. Approximately half of the respondents said they would have chosen to use condoms but did not feel they had that option. Those that did use them did so sporadically. Usage is low primarily because female partners lack the power to effectively negotiate condom use.

By their own admission, many of the partners of mine migrants are not faithful while they their partners are away at the mines. Given the fact that most rural women rarely see their migrant partners, the potential for extra-marital, or extra-relationship, affairs would be higher. Nearly one in five respondents said they had sex during this period with someone who was not their primary partner or spouse and where no financial transaction took place. In addition, women are highly dependent on the remittances sent home by their partners. As such, they remain highly vulnerable to the remittance behaviour of their partner. If the remittances are irregular or insufficient, household poverty deepens. Resort to selling sex for cash or goods is a not uncommon response. In the twelve months prior to the interview, 14% admitted having had sex in exchange for goods or money.

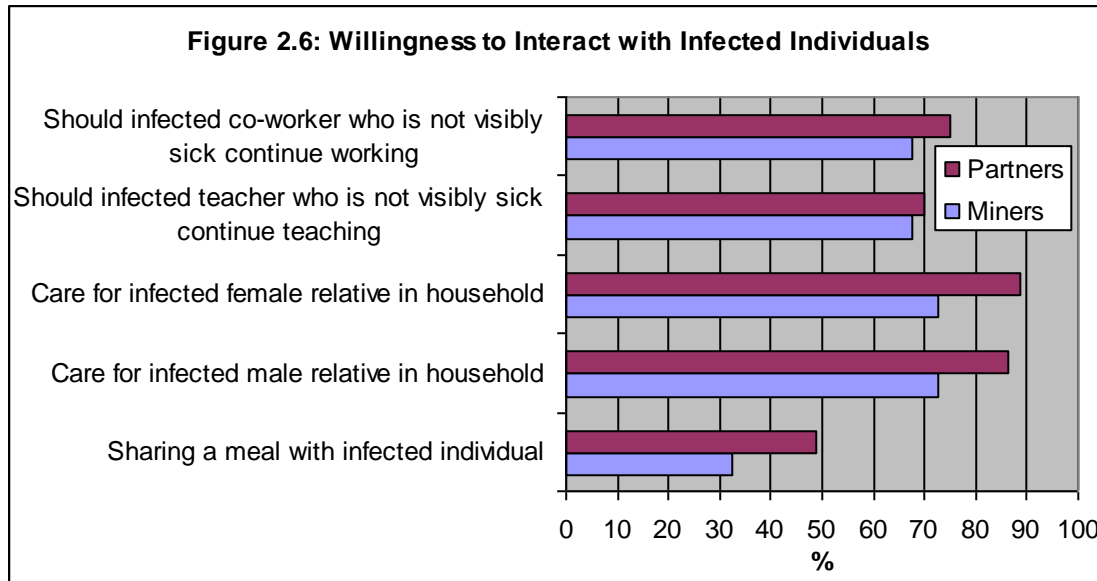
Of the 46 women who admitted having sexual relationships other than with their regular partner (57% of the total sample), just over 35% gave sexual satisfaction or emotional support as the primary reason while another 33% cited financial reasons or support for children (Figure 2.5). Condom use was no more consistent with non-regular partners, suggesting that women's power to negotiate safe sex is no stronger with casual than regular partners. In the case of commercial transactions, it may well be less.



Hence, some rural partners place themselves at increased risk through their own behaviour while their migrant partners are away. The responses of partners in rural Mozambique suggest that vulnerability in the mine-sending areas is not simply a function of the exposure of female partners to HIV through returning migrant partners.

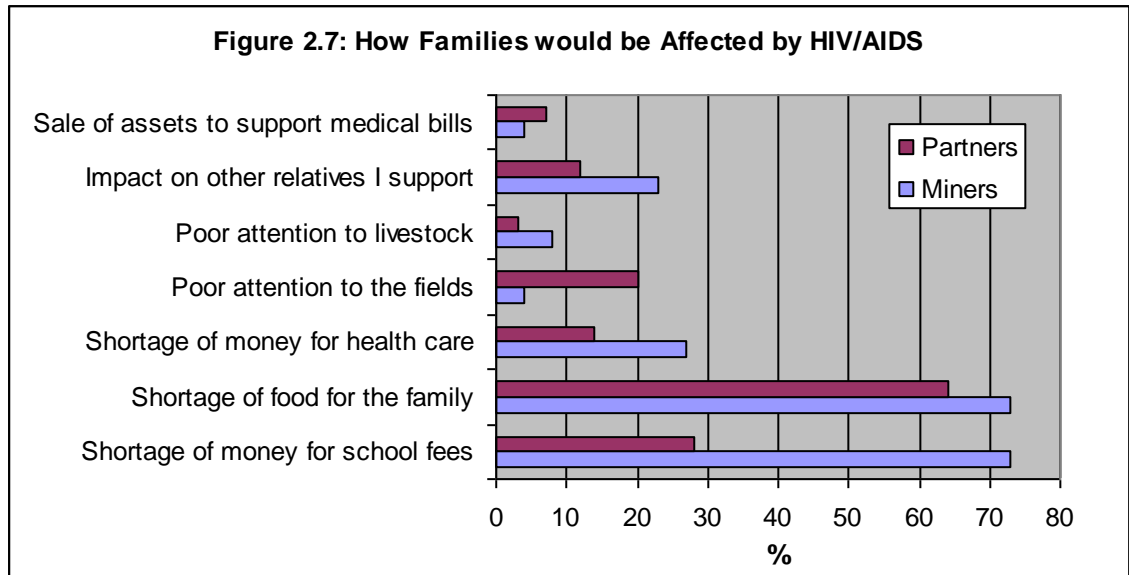
Attitudes

Stigmatization of those living with HIV and AIDS is present amongst migrants and partners, though partners were more accommodating than migrants across a range of questions (Figure 2.6). While a solid majority of miners (73%) said they would be willing to care for a relative who was infected with HIV, only 35% said they would be willing to share a meal with someone in the same situation. A majority (68%) did say that both teachers and co-workers who were HIV positive, but in good health, should be allowed to continue working. In general, rural partners were more willing (88%) to care for others who have become infected with HIV but half said they would be willing to share a meal with someone they knew to be infected. A similar percentage (66% of partners and 62% of migrants) said that they would want the positive status of any family member to remain a secret.



Most miners stated that if they were diagnosed with HIV, they would be reluctant to share this information with others. Sixty-three percent of miners said they would want their status to remain a secret while 65% said they would not discuss their status with others if they became ill. A similar percentage (63%) said that clinicians should not be obliged to inform close relatives that someone had tested positive for HIV.

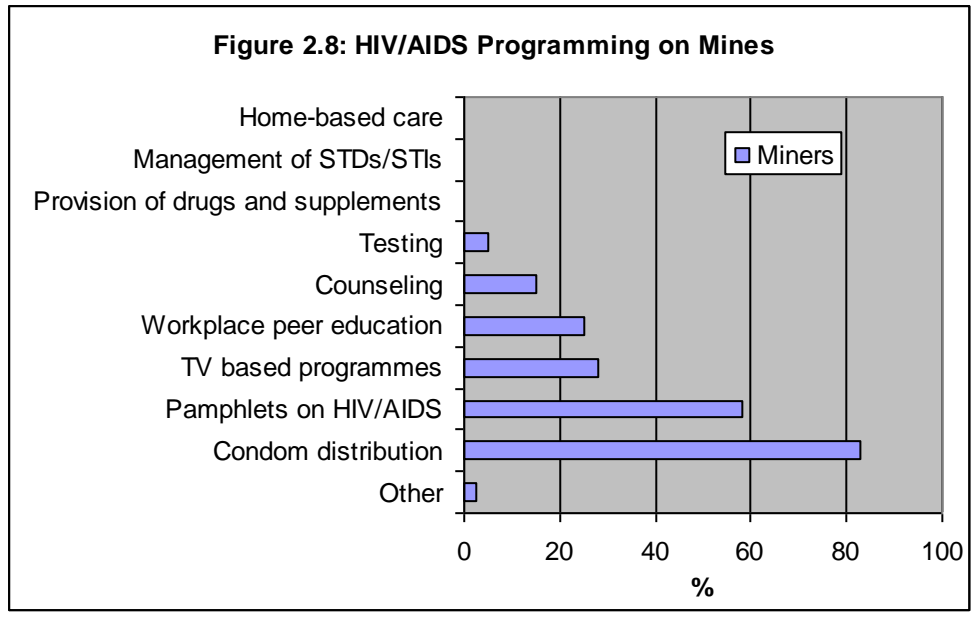
Despite the secrecy and stigma attached to the disease, and the belief in the existence of a cure, miners and partners were both well aware what the disease would mean for the household. Three quarters cited shortages of money and shortages of food although women were more worried about the latter. Given the importance of migrant remittances for food purchase and school fees amongst migrant-sending households in Mozambique, this is not particularly surprising. Very few thought that there would be much impact on household subsistence agriculture. This may seem surprising given the widespread perception in the literature that HIV and AIDS impact negatively on rural production (Topouzis 1998; Michiels 2001; Drimie 2002; Baylies 2002). In fact, recent research with migrant-sending households in Mozambique clearly shows that agriculture is a very minor contributor to household income (de Vletter 2006).



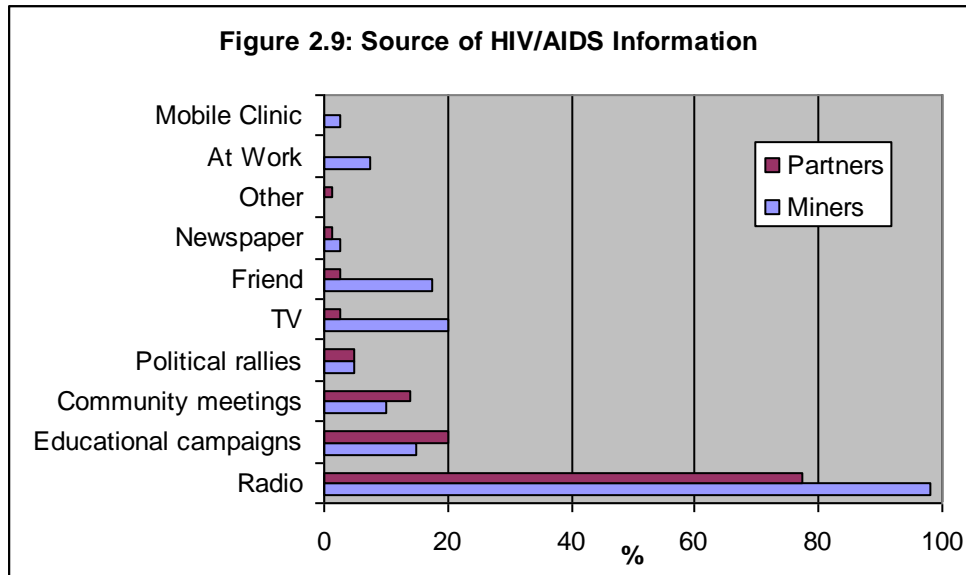
HIV and AIDS is clearly thought to be a substantial health risk by both miners and rural partners yet considerable misinformation and secrecy still surrounds the disease. If anything, rural women are actually slightly better informed than the migrant men. This raises the important question of how these two groups acquire knowledge of HIV/AIDS and how to reduce vulnerability.

2.4 HIV Prevention and Care responses

After a slow beginning, many mines now have HIV prevention and education programmes in place. Types of programme identified by miners in this survey included condom distribution (mentioned by 83%), pamphlet distribution (58%), TV programmes (28%) and peer education programmes (25%) (Table 2.8). The vast majority of these programmes are focused on prevention rather than care. The vast majority felt the programmes in place were beneficial. Only a handful of respondents believed that the programmes had ‘gaps’ in them.



Only 8% of the miners said they had learned about HIV/AIDS at work, however (Figure 2.9). Only a handful had heard about it through community meetings or educational campaigns and only one via a mobile clinic. Most identified the radio as a primary source of learning about HIV and AIDS. Smaller percentages also cited television and friends as sources. Radio was also the preferred method of communicating future messages on health-related issues (85%) A smaller number said they would find pamphlets most effective (15%). As with the miners, the majority of rural partners (78%) cited radio as their primary source of AIDS-related information.



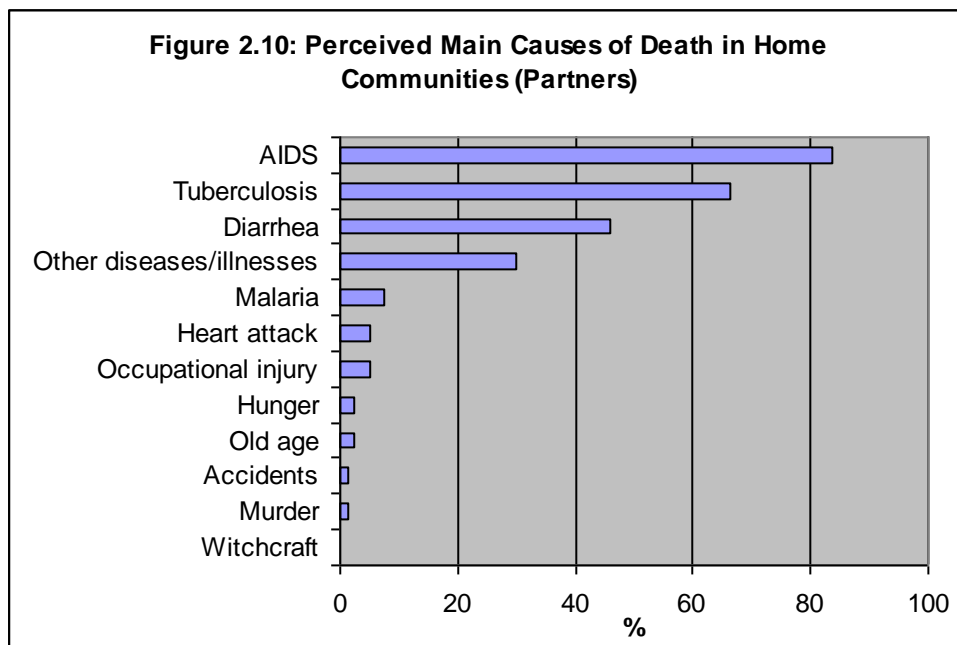
As many as 86% of the rural partners said that AIDS-related programming was being implemented in their community in the Chokwe District. It would appear that the primary focus of these programmes is condom distribution (cited by 66% of respondents) followed by the distribution of informational pamphlets (40%) and personal counseling (31%). The programmes were viewed as very beneficial and less than 10% declared that they felt gaps were present that compromised programme effectiveness. When asked how the programmes could be made more beneficial to the members of the community, the answers tended to focus on preventative measures. Some argued that more public education campaigns on HIV/AIDS matters are necessary. Given that AIDS is still a sensitive and often taboo topic of discussion, this form of public education is severely lacking yet, it appears, in demand.

In terms of access to care, three-quarters of the miners had been sick while working and all but one had sought help at a hospital. Half the respondents said that their mine was serviced by mobile clinics. Only five miners said they have had difficulty accessing medical services on the mine, three of whom claimed that services were located too far away. However, the majority of those who fell ill sought attention off the mine (70%). This was despite the fact that only five of the miners said that their mine was without a clinic. Why these miners prefer to use off-mine health services is a point for speculation. One possible reason is the fear of discovery that they are HIV positive. While there is no direct evidence that the mines dismiss HIV positive workers (they

would be in violation of the South African labour law if they did), there is a suspicion amongst miners that this is what happens. This could also explain why so few have ever been tested.

In the rural areas, many of the rural partners are caring for young children (18 respondents said they had given birth in the year preceding the survey), and require specialized medical services. Eighty-six percent also said they were sick recently. The vast majority sought assistance at a hospital, the remaining 9% went to a clinic or health post. Access to services appears to be reasonably good in Chokwe District. Some 64% said they are normally able to get to health care facilities when needed. Nearly 80% said that the medical services was very good and another 18% said they were “average.” Of those who expressed difficulty in accessing care, one third cited lack of transport.

Most women (84%) feel that the medical needs of their community are growing and more people are dying now than a few years ago. When asked about the major causes of death, AIDS was mentioned by 84% and tuberculosis by 66%. Forty-six percent of respondents also pointed to diarrhea as a cause of death (Figure 2.11). None believed witchcraft had caused deaths in the community.



2.6 Conclusion and Recommendations I think we can move conclusion to executive summary in the beginning of report

Collins (2006: 1) argues that “donors [and others] have ignored a key structural reason why HIV/AIDS continues to spread in Mozambique – and elsewhere in southern Africa – today: the continuation of the region-wide, low-wage migrant labour system. This system continues to fragment family life, thus helping sustain Mozambique’s – and southern Africa’s – HIV/AIDS pandemic. If donors and African governments are serious about stemming the rising tide of HIV/AIDS, they must begin to explore long-term alternatives to this migrant labour system – and to the dominant export-led development model on which this system is premised” (Collins 2006: 1). The findings of this study both support the relevance of Collins’ observation and confirms that migrant-sending areas are high-risk zones for infection.

Knowledge of HIV and AIDS is reasonably good amongst residents of this traditional mine-sending area in Mozambique. Perception of personal vulnerability is also high. Yet, both miners and female rural partners of migrants appear to place themselves at risk through their behaviour. The reasons for doing so seem, however, to be quite different. In the case of miners, high risk behaviour is a consequence of the migrant labour system which sees them spend the greater part of the working year away from home in an all-male environment of macho masculinity with easy access to transactional sex (Campbell 2003). These miners certainly know that condom use would reduce their risk of contracting HIV but actual use is sporadic to non-existent. Condom use is rejected on grounds of personal preference or attributed to forgetfulness. Miners at home are no more likely to use condoms than when on the mine. The risks of contracting HIV are certainly lower (since commercial sex workers on the mines exhibit much higher HIV prevalence than rural Mozambican women). But their very unwillingness to use protection puts their rural partners at greatly increased risk. Women, by their own account, are powerless to negotiate regular and consistent condom use with their male partners.

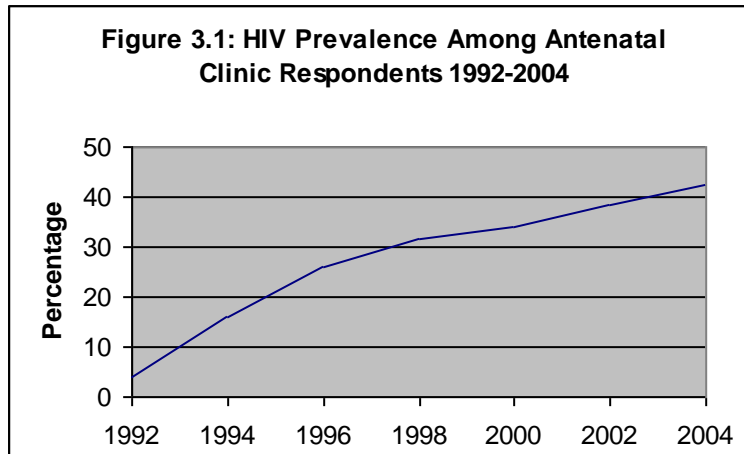
Rural partners perceive themselves to be at high risk precisely because their partners do not wish to use condoms. Miners clearly expect their partners to be faithful and do not see themselves at risk when they go home. Any woman who insists on condom use is seen to implicitly questioning her partner’s faithfulness. This combination makes regular and consistent condom use extremely unlikely. Women lack the power to

negotiate condom use. Ultimately, therefore, it is the gendered relations of inequality that make it very difficult for women to protect themselves in the high-risk environment that the mine-sending area has increasingly become.

HIV Vulnerability and Mine Labour Migration from Rural Swaziland**3.1 HIV/AIDS and mobility in Swaziland**

Swaziland has one of the highest rates of HIV in the world. In 1992, the first ante-natal clinic (ANC) survey was carried out and showed an HIV prevalence of 3.9%. In 1994, prevalence had jumped to 16.1% and in 2002 to 38.5% (VAC 2004). The latest figures from the ninth national ANC survey conducted in 2004 show that the rate has jumped again, this time to 42.6% (Ministry of Health 2005) (Figure 3.1). Rates of HIV infection are highest among women of child-bearing age in their 20s and 30s. The impact of the epidemic is being felt throughout the country. The death rate increased from 11 to 20 per 1000 population between 1997 and 2003 and the infant mortality rate increased from 88 to 109 per 1000 over the same time period. Life expectancy has fallen to 40 for males and 41 for females (VAC 2004).

The social and economic impact of HIV and AIDS have yet to be fully explored, although the impact on rural agriculture (on which many Swazi households depend) is already being felt. As the Swaziland Vulnerability Assessment Committee (VAC) (2004: 33) has observed: “The impact of prolonged morbidity and increased mortality on households and productivity on farms through HIV/AIDS has severe ramifications for the subsistence agriculture sector in Swaziland.” Households are also changing their income sources to compensate for losses of income from crop sales and remittances (VAC 2004: 51).



The dramatic spread of HIV in Swaziland has been directly attributed by some authors to high levels of internal mobility and cross-border migration to South Africa. Whiteside (2003: 32), for example, argues that the people of Swaziland are “extremely mobile” within the country and, in addition, “there is considerable cross border mobility, particularly to South Africa.” He draws particular attention to migrant miners, formally employed through The Employment Bureau of Africa (TEBA) who “travel as single men for periods of up to a year.” In 1998, approximately 8-10% of Swazi households had family members employed on the South African mines (VAC 2004: 16). The depiction of mine migrancy, in particular, is no longer accurate. Swazi migrants do actually return home frequently, which only magnifies rural vulnerability.

Swaziland certainly has a long history of cross-border migration to South Africa (Crush 1987). A 2001 SAMP survey found that 79% of Swazi adults had visited South Africa at some point (compared to only 29% of Mozambicans) and that 39% had parents who had worked in South Africa (Simelane and Crush 2004: 6). After 1990, movement between Swaziland and South Africa further increased. Legal border crossing from Swaziland to South Africa increased from under 200,000 in 1991 to over 800,000 in 2003 (Simelane and Crush 2004: 8).

A recent national survey of migrant-sending households in Swaziland identified 1,132 cross-border migrants from 1,000 households (Simelane 2005). The vast majority of these migrants (98%) were employed in South Africa in a wide variety of occupations

(Table 3.1). The South African mining sector (at 62.5%) was by far the most significant employer of Swazi migrants. Unskilled manual workers made up only 8% of the migration stream followed by skilled manual workers (6%), professionals (3.5%) and service workers (2.5%). In other words, despite considerable downsizing of the Swazi mine labour force, minework remains the most significant occupation of Swazi migrants.

Main Occupation	Swaziland	
	N	%
Mine worker	705	62.3
Unskilled manual	88	7.8
Skilled manual	69	6.1
Professional	40	3.5
Service worker	28	2.5
Security personnel	22	1.9
Office worker	19	1.7
Domestic worker	18	1.6
Business (self-employed)	12	1.1
Teacher	9	0.8
Managerial office worker	9	0.8
Foreman	8	0.7
Trader/ hawker/ vendor	8	0.7
Agricultural worker	6	0.5
Health worker	6	0.5
Farmer	5	0.4
Informal sector producer	5	0.4
Manager	4	0.4
Police/ Military	2	0.2
Student	1	0.1
Other	66	4.3
Total	1132	100.0

While mobility is widely said to increase vulnerability to HIV, different forms and frequencies of movement impact differently on vulnerability (Crush et al. 2005). With regard to Swazi miners, Whiteside (2003: 33) argues that the vulnerability of Swazi

miners is attributable to anonymity, loneliness, an inability to maintain stable relationships and an environment where life is cheap. These increase the likelihood of non-regular sex and sexually transmitted infections. It certainly cannot be denied that the mine environment also generates a machismo culture conducive to sexual behaviours that put miners at considerable risk (Campbell 2003).

Unequal gender relations, the relative lack of power of women, women's status and gender-based violence have all been advanced to explain the vulnerability of migrant and non-migrant women in Swaziland (Tobias 2001; Buseh et al. 2002; UNDP 2002; Simelane 2006). The UNDP's gender analysis of the Swaziland epidemic concluded:

Women's vulnerability to HIV/AIDS infection is increased by economic, social and cultural factors and by different forms of violence (particularly sexual), that place them at a disadvantage within relationships, the family, the economy and society at large. Women's economic dependence on men, their high poverty levels and lack of access to opportunities and resources, contribute to their vulnerability to HIV/AIDS infection. Because of the economic dependence on men, women are unable to take control of their lives and protect themselves against HIV infection (UNDP 2002: 1).

The report also observes that women in Swaziland are expected by men to be subordinate and submissive, that it is considered acceptable for men to have multiple sexual partners, and that certain practices (such as polygamy, arranged marriage, widow inheritance and the reed dance) all contribute to the spread of HIV. The vulnerability of women is explicitly acknowledged by the Swaziland government (GOS 1998, 2000). However, "there is no legislation in place to protect the basic rights of women" (Gumedze 2004: 24). In other words, while migrancy puts many Swazi men at risk, it is gender relations within Swaziland that heightens the vulnerability of most women. When high-risk male migration is combined with gender inequality in migrant-sending areas, the risk for women, particularly spouses and partners (regular and casual), is magnified. If women were empowered to make their own decisions about sexual behaviour and protection, the impact of high-risk behaviour by migrant men would be accordingly reduced.

Swaziland is certainly not as well-known as Lesotho or Mozambique as a major mine migrant-sending country. Yet it has been a supplier of labour to the South African gold mines since the early twentieth century. As Table 3.2 shows, the numbers of Swazi mineworkers never exceeded 20,000 and reached a peak in the late 1980s.

Better to put this in graph Table 3.2: Swazi Migration to South African Mines, 1920-1995			
Year	No. of Swazi	Total Foreign	% Swazi
1920	3,449	99,950	3.5
1925	3,999	94234	4.2
1930	4345	99355	4
1935	6865	112498	6.1
1940	7152	168058	4.3
1945	5688	158967	3.6
1950	6619	172816	3.8
1955	6682	192934	3.5
1960	6623	233808	2.8
1965	5580	232610	2.4
1970	6269	265143	2.4
1975	8391	220293	3.8
1980	8090	182499	4.4
1985	12365	196068	6.3
1990	17757	192044	10.1
1995	15304	204257	9
2000	8079	108169	7.5
<i>Source: TEBA</i>			

The southern Shiselweni District of Swaziland has traditionally sent the most mine migrants to South Africa (Crush 1987).

Figure 3.2: Swaziland with Districts and Major Towns



As Table 3.3 shows, ANC HIV prevalence rates in the Shiselweni District are comparable with those in the other three districts of the country. As Whiteside (2003: 12) points out, the epidemic is “uniformly bad” in Swaziland with little difference between rural and urban areas and between districts.

Region	1994	1996	1998	2000	2002
Hhohho	15.5	26.3	30.3	32.3	36.6
Lubombo	16.8	26.5	31.5	34.5	38.5
Manzini	15.6	27.7	34.8	41	41.2
Shiselweni	16.8	23.9	29.6	27	37.9

Source: Whiteside, 2003, page 15.

Others have pointed out that although Shiselweni does not have the highest HIV prevalence, it does have the highest number of AIDS-related deaths (Muwanga 2002: 26; Beckmann and Rai 2005: 5). This they attribute to the greater incidence of poverty and migration patterns out of Shiselweni. The 1997 Census showed that Shiselweni District had the highest rate of out-migration with 90% of them migrating to Manzini. In other words, many Shiselweni residents with HIV are living and working in Manzini, pushing up that region’s prevalence rate. At the same time, people living with HIV and AIDS

return to the Shiselweni region to die. As mine migrants with HIV become ill and are unable to work on the mines, they too return to Shiselweni (Beckmann and Rai 2005).

3.3 Findings

This study set out to find out what the determinants are of HIV vulnerability in a mine-sending area about which very little is known by researchers. A questionnaire was administered to a total of 50 working male miners and 98 rural female partners. Similar to the Mozambican study, rural female partners interviewed were not necessarily in relationships with miners interviewed. Snowball sampling techniques were used to identify interviewees.

Demographics

The majority of the mineworkers interviewed were in their forties while the rural female partners were mainly in their thirties, which is a similar pattern to the Mozambican sample. Both groups were also relatively uneducated with the majority not having gone beyond primary school. The majority of male migrants were married (72%) and only 10% were co-habiting. Only 2 of the miners interviewed were single. Hence, as in Mozambique, most migrant miners have long-term relationships with rural women. They are not, as are many non-mine migrants, young, single men. In other words, the question of vulnerability to HIV in this mine-sending area relates primarily to married women who are in their 30s, mostly with young families.

Overall the migrant miners earn relatively low incomes. The average wage was only E2000 per month (Emalengeni, equivalent to ZAR). The amount is small but still higher than the average monthly wage in Swaziland. Almost 80% said they have no other source of income than the remittance sent by the migrant men. This money is used to support very large families: 45% of the men interviewed support between five and nine children, while a further 22% support ten children or more. Only 5% had no children to support. The majority of the mine migrants support between one and four adults in addition to the children. These are large families if we consider that according to the last Swaziland Census in 1997 the average family size in the country was roughly five members. Clearly, the HIV epidemic has had a major impact on the numbers of dependents supported by migrants.

Migration patterns

The migrant workers work at several different mines in South Africa, the majority at West Deep Level and Vaal Reefs. Most had worked in the industry for more than eight years, which is consistent with the general pattern in the mining industry of a stable, but aging, workforce. Many are machine operators (over 40%), with the remainder being general labourers and drivers. Swazi miners are generally known for their specialization in operating mine machinery. The majority of the mine migrants are accommodated in single-sex mine compounds. Some, however, rent accommodation in neighbouring communities. According to some informants, this is especially true of migrants who have forged extra-marital relationships with women in the vicinity of the mine irrespective of whether they have wives or girlfriends back in Swaziland.

In contrast to the Mozambican miners from Chokwe, the majority of the Swazi migrants return regularly to their rural homes. Around 60% visit their homes in Swaziland monthly, while 30% said they do so every other month. This was corroborated by the rural female partners; just over half (52%) said that they see their husbands monthly. Regardless of the interval between visits, the length of each visit home is usually short. The majority (around 60%) said that their home visits last for 1-2 days. Another 30% said that their visits typically last for 3-5 days. As many as 40% of the migrant mineworkers said they are sometimes visited by their partners at the mines.

Perceptions of HIV and AIDS

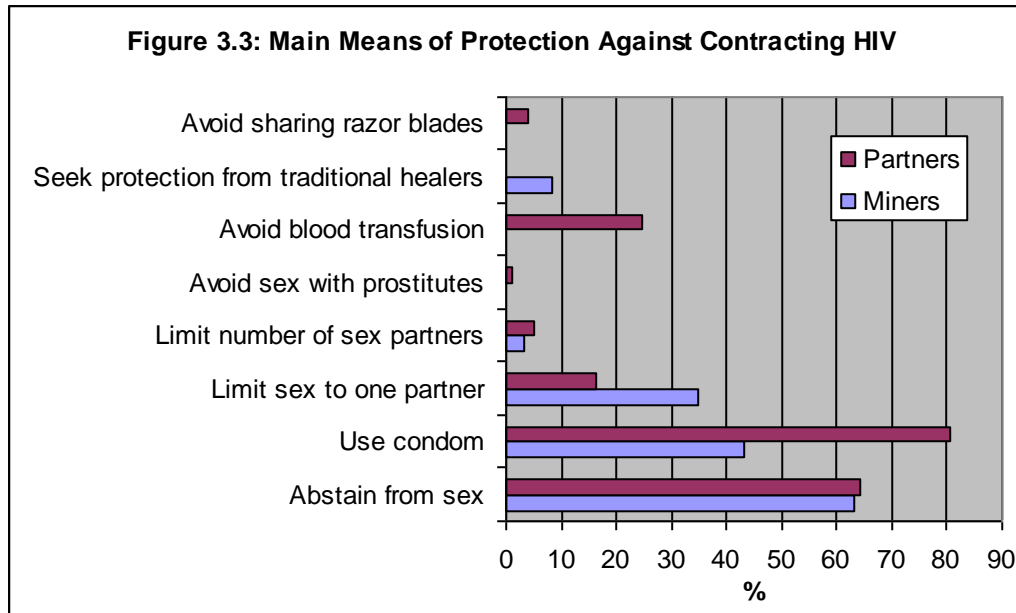
The reality of HIV and AIDS is well-recognized by both migrant mineworkers and rural female partners. According to both groups, more people are dying in the home area than in previous years. Some indicated that almost every weekend is now reserved for funerals while others said that funerals are often conducted simultaneously because there are too many deaths occurring. A quarter cited AIDS as the leading cause of death of miners and ex-miners. Others cited occupational injury (22%), tuberculosis (19%) and other disease (19%). Only 2% cited witchcraft and hunger. AIDS also stands out as the leading perceived cause of death of community members in general (31%). Other causes

of death mentioned included TB (20%), other diseases (21%), witchcraft (5%), heart attacks (4%) and old age (4%).

A 2003 Survey concluded that “Swazi people are highly knowledgeable about HIV/AIDS/STIs but this knowledge has not translated into desirable behavioural change” (Whiteside 2003: 22). This finding is similar to what was found in this study among Swazi miners and rural female partners. All were very aware of HIV and AIDS. The majority of both migrants (68%) and rural female partners (67%) are aware that AIDS is not curable. Most also disagreed with common myths that a person can get infected through sharing a meal with an infected person, sharing tools at work, sharing a bed, sharing clothes or shaking hands.

Reasonably high levels of awareness about protection were demonstrated. Unlike the Mozambican respondents in the previous chapter, abstinence was viewed by the majority of migrants (63%) and partners as the primary means of protection (Figure 3.3). The reasons for the marked difference with Mozambique may have to do with messages preached by the very influential churches in Swaziland and by King Mswati.

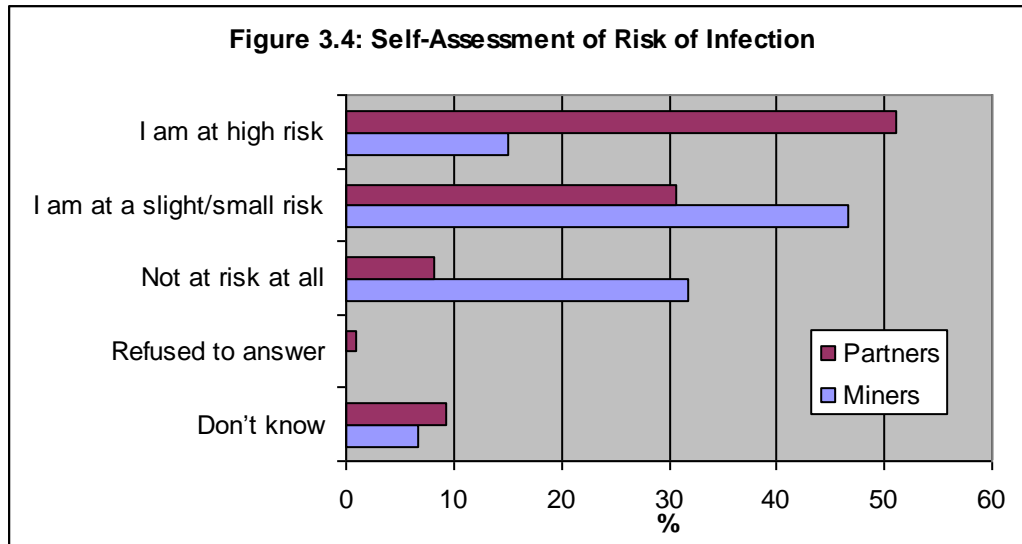
Interesting differences about the perceived efficacy of condoms emerged between the two target groups. Similar proportions of rural female partners as in Mozambique (80%) saw condoms as the most effective form of protection. However, only 43% of miners viewed condom use as a major form of protection. Nearly 10% of the miners saw the protection of traditional healers as a viable means of prevention.



While rural partners may better understand the importance of condoms in reducing vulnerability, traditional gender roles in Swaziland mean that it is not easy for women to negotiate safe sex with their partners.

Perceptions of Risk

Self-assessment of risk showed that more women than men felt they were at high risk of infection (Figure 3.4). Nearly 80% of miners felt that they were at low or not at risk at all and only 15% thought they were at high risk. Most workers who said they are at low risk noted that it was because they were faithful to their partners, even though the responses to other questions contradicted this assertion. Those who said they were at high risk blamed their partners: they felt that they could not trust their partners and believed they were unfaithful.

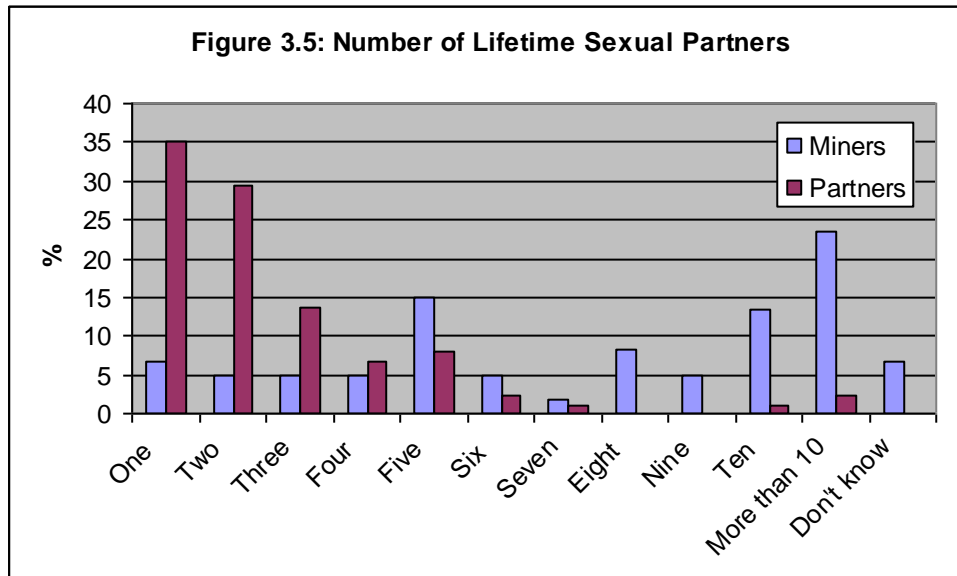


In contrast, rural partners were not nearly as positive about the risk of personal infection. Only 8% felt that there was no risk at all and over half (51%) said that they were at high risk. The contrast with the migrants is dramatic. Their sense of vulnerability came from the behaviour of their partners, not their own. Most of the women who felt they were at high risk felt this way because, they said, their partners engaged in high-risk sex with others. Nearly half (48%) said their migrant partners were not faithful and/or did not want to use condoms. Another 22% said that they were at risk because they had no idea about their partners' sexual activity while away from home. A further 12% said they did not trust their partner. In other words, over 80% of the women who said they were at high risk blamed their migrant partners for their own vulnerability. If the migrants are to be believed, these fears are groundless. The lack of trust amongst miners and partners dominate the feelings of those who consider themselves at high risk and raises important concerns about the psychological stresses that migration puts on inter-personal relationships.

3.5 Risk Behaviour

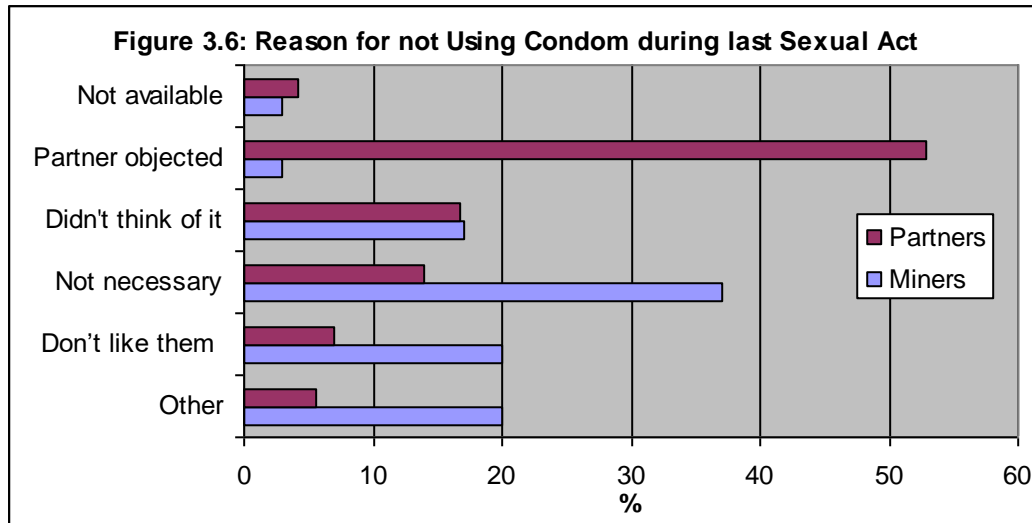
In light of the fundamentally different risk perceptions of mine migrants and rural women and the apparently high levels of mistrust between them, the survey sought to gain some insights into actual risk taking behaviour. The migrants expressed a strong inclination for multiple sexual partnerships (Figure 3.5). Only 7% had limited themselves to one lifetime partner. Another 30% said they had sex with between 2 and 5 women and 33%

with between 6 and 10 women. Twenty two percent had more than 10 partners. These findings are not inconsistent with other studies of migrant mineworkers in Southern Africa (Campbell 2003).



In sharp contrast, 35% of female partners said they only had one lifetime sexual partner and a further 32% only two. Just 14% said they had 5 or more partners and only 3% had had 10 or more. The rural partners suggested that having multiple partners is not all that common in rural mine-sending areas. Partners are vulnerable because of a system of mobility that connects them to high-risk workplace communities.

The primary contradiction is that migrant miners do not generally view themselves as a high risk group, yet admit to having multiple sexual encounters. Having multiple partners certainly increases risk but safe sex decreases it. Given their awareness of HIV and AIDS, this might imply that they take adequate precautionary measures. Such a hypothesis should, at the very least, translate into high levels of condom use. In fact, nearly three quarters of those who had had sex in the previous 30 days had not used a condom. Asked why, the majority responded either that they did not like condoms (37%) or had forgotten to use them (20%) or did not think they were necessary (17%) (Figure 3.6). Around 20% said their female partner had actually objected to their use. In general, however, these migrant miners do not appear to have a good sense of the heightened risk of having unprotected sex with multiple partners.



A rather different pattern emerges with rural partners (Figure 3.6). Condom use is as low as that of the male migrants; 79% had not used a condom during their last sexual act. However, unlike their male counterparts, this had very little to do with a dislike of condoms (14% versus 37%), though some did forget (6%) or think it unnecessary (17%). What is most striking is that 53% did not use condoms because their partners objected to their use. In other words, while rural partners in mine-sending areas protect themselves through limiting the number of sexual partners, this does not render them invulnerable to infection because condom use is so low. This increased vulnerability is rooted in gender relations of inequality with partners who reject condom use while simultaneously engaging in high risk sexual behaviour at the mines.

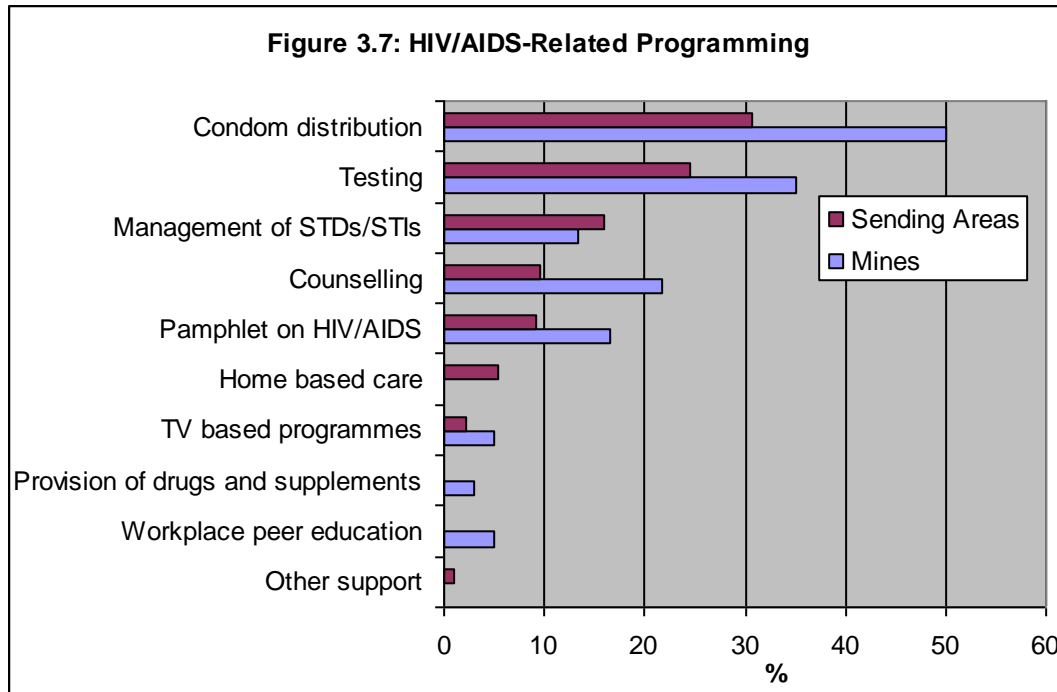
When it came to issues of disclosure, responses were mixed. The majority of miners (65%) would not want the HIV status of a family member to remain a secret. However, 62% said that if they became infected they would not discuss their own status with other people. Knowledge of how they could be tested was good amongst both groups and the majority said they believed that test results were strictly confidential. Yet, only a quarter of the miners and a quarter of the partners had ever been tested. This situation is not peculiar to the study group but common throughout Swaziland. Several campaigns have been implemented to encourage people to know their HIV status, but little success has been achieved to date (IRIN 2004).

3.6 Care and Treatment

The majority of the respondents indicated that they had heard about antiretroviral therapy (ART) and that it is used to stabilize the disease. Most importantly, both migrants and partners are almost unanimously aware that HIV and AIDS cannot be cured with antiretroviral drugs. This challenges one idea that people from rural areas think that antiretrovirals are for curing HIV/AIDS. The issue of accessibility has been a sensitive one in Swaziland where the ability of the Government to roll-out these drugs has been questioned.

In order to learn more about HIV prevention programmes in the workplace and community, the migrants and the partners were asked what sorts of educational campaigns they have been exposed to. The mineworkers mentioned various mine programmes: condom distribution (mentioned by 50%), HIV testing (35%), counseling (22%), pamphlet distribution (17%) and STI management (13%) (Figure 3.7). Only 5% mentioned peer education programmes. These responses, if in any way representative, show that mine workers are not exposed to comprehensive HIV prevention and care programmes in the workplace. Certainly in the early years of the epidemic, management tended to turn a blind eye (Dickinson 2004). This situation is slowly changing but according to these findings, not quickly enough.

HIV and AIDS programming efforts by rural clinics in the mine-sending areas of Swaziland may be even more inadequate, but are not particularly different in emphasis. Here, too, the main emphasis is on condom distribution (mentioned by 31%), testing (25%), and management of STI's (16%). Counselling is not freely available to these women, nor is home-based care and support.



Conclusion

Swazi migrant mineworkers and their partners are certainly fully aware of HIV and AIDS and what they need to do to reduce their personal vulnerability. This knowledge has probably been gained through national educational programmes on HIV and AIDS, since most said that they received information about the disease mainly through the radio. The migrant mineworkers also indicated supplementary knowledge through the workplace.

Migrant mineworkers and their partners do not live together for the greater part of the year, yet they do maintain greater personal contact than their Mozambican counterparts. Miners return home fairly regularly and some women occasionally visit their partners at the mines. However, the fact that the miners are away increases vulnerability for both the miners and the rural partners. The frequency of return home in the modern migrant labour system may be healthier for relationships but it places rural partners at greater risk of infection too.

In the context of a major epidemic why do Swazi migrant mineworkers continue to have multiple sexual partnerships? At the same time, why do so few say that they are at low risk of infection and not therefore protect themselves? Certainly, the belief that they are not at risk is patently incorrect. Yet if they truly believe, for whatever reason,

that the risk is low, then that would explain their attitude towards protection through condom use. No migrant said they did not use condoms because they do not work or are inaccessible. Most simply do not like using them and so they do not.

Rural women have little control over their partners' behaviour when they are away at work. When the men return, they are generally unable to protect themselves since their partners object to the use of condoms. This places them at high risk of infection. Disempowered by patriarchal gender relations to make choices about their own sexuality, they are playing Russian roulette with their lives. This is a serious situation because unless migrant sexual behaviour changes (which seems unlikely if they do not perceive they are at high risk) greater condom use is the only realistic way for rural partners to protect themselves. To date, they have clearly been unable to do so.

The sudden entry and rapid spread of HIV in Swaziland during the 1990s cannot be solely attributed to the sexual behaviour of migrant miners, though it undoubtedly played its part in certain areas of the country. Indeed, Swaziland is in the curious position of having experienced a marked decline in the number of migrant miners leaving the country at precisely the time that the epidemic was growing exponentially. Swaziland is a case study of a mine migrant-sending community in decline. Yet, this has clearly not protected the south of the country from the epidemic. One can only speculate about how much worse the situation would have been if the country had maintained its quota of miners during the expansion phase of the epidemic.

Any general conclusions from these two studies need to be carefully qualified. These were studies of a limited sample of migrant miners and rural partners. The partners interviewed were not necessarily related to the miners interviewed. To interview both partners in a relationship was considered by the researchers concerned to be less likely to elicit honest responses. In addition, the surveys primarily posed Knowledge, Attitude and Practice (KAP) questions which are generally reasonably good at collecting information on awareness and perceptions of risk but are rather less reliable on self-reported sexual activity.

Nevertheless, these two surveys did reveal some important similarities and differences between the two mine sending-areas studied:

- Awareness of HIV/AIDS, its causes and how to reduce risk is generally quite good, not only amongst migrants miners (who have the benefit of workplace programmes) but in the rural communities studied. Many of the common myths about HIV/AIDS are held by only a tiny minority. Most people seem to know what puts them at risk, know that the disease is fatal, know that ARVs are not a remedy and do not appear to have a great deal of faith in traditional healers. One exception is the rather large proportion of Mozambican miners who believe the disease is curable.
- In both Mozambique and Swaziland, however, the main source of knowledge is not workplace programmes on the mines or in the community nor peer education nor the medical community, but radio. This could be seen as something of an indictment of conventional workplace and community-based education programmes. On the other hand, it demonstrates the critical importance and potential of radio as the medium for education.
- Migrant miners are long-term, career workers. As long as their health holds and their mine does not close, they keep their jobs. This means that

the mine workforce has aged dramatically in the last twenty years. Miners are no longer young men. Most are in their 40s and 50s and have many years of service on the mines. They are heads of households, supporting numerous children and adults. Their remittances are the primary source of income and means of survival to their rural households. This means that the potential impact of a miner getting HIV is enormous.

- Age and maturity do not appear to have had any significant mitigating impact on the high risk behaviour of miners. While the evidence collected here relies on self-reporting, many miners not only have additional regular partners when they are at work but frequent commercial sex-workers at hotspots around the mines. The impact of extended separation and the high-risk living and working environment that has always characterized the mines, continues to facilitate, if not encourage, high-risk behaviours that greatly increase the chances of HIV.
- One of the basic hypotheses of this study is that changes in the nature of migration patterns affect the risk behaviour of miners. Here the Mozambican and Swazi cases provide a valuable point of comparison. Mozambican miners return home only once a year for annual leave. Swazi miners, in contrast, visit home at least once a month or every month or two. Yet, as far as these studies could ascertain, both engage in equally risky behaviour while they are away at work. Frequency of return home therefore does not appear to have any mitigating influence on the sexual practices of mineworkers at work. What it clearly does do is place Swazi women at greater personal risk than their Mozambican counterparts.
- One interesting contrast that is that Mozambican miners recognize that they are at high risk of infection while Swazi miners do not. Three quarters of Mozambican miners thought they were at “high risk” of infection compared to only 15% of Swazi miners. Since, by any objective criterion, they are, in fact, equally vulnerable, the real question is why so many Swazi miners underestimate the risk.

- If Swazi mine workers consistently used condoms, and Mozambican miners not, this might explain the different perceptions of vulnerability. Yet the two groups of miners were equally uncommitted to regular and consistent condom use. While only a few did not use them at all, none of the miners used condoms every time they had sexual intercourse. Over 80% of Mozambican miners believe that condoms were an effective form of protection against HIV, compared with only 40% of Swazi miners. Yet the latter did not give this as a reason for not using condoms. The reasons given by both groups were familiar, and not unlike the reasons that men generally in this region give for not using condoms: they simply did not like them (nearly 40% of both Mozambicans and Swazis), they forget (25% of Mozambicans and 28% of Swazis) or they really do not think they are necessary (17% of Swazis and 17% of Mozambicans).
- The primary objective of these studies was not to reconfirm much of what we already know about the vulnerability of migrant miners but to examine the perceptions and attitudes of the rural partners of miners and, thereby, to shed more light than currently exists on the vulnerability profile of migrant-sending areas. Both the Mozambican and Swazi women interviewed felt that they were highly vulnerable to HIV. They also believed that condom use was an effective means of reducing vulnerability. But in Swaziland, the abstinence message has clearly made greater headway than in Mozambique. However, while abstinence was seen as an important way to significantly reduce or eliminate risk, few of the migrant partners abstain from sex. Indeed, sexual relations with their partners on annual home leave or on weekends is a clear expectation.
- Condom use also does not seem to be a very effective means of reducing risk in rural sending areas as condom use is low there as well. This does not appear to be related to unavailability. None of the informants mentioned this as an obstacle to use. However, while migrant men give “pragmatic” reasons related to sexual pleasure, necessity and

forgetfulness, rural partners answers are lodged in the dynamics of gender inequality. Women's use, or rather lack of use, of condoms has virtually nothing to do with personal preference. Partners of migrant miners wish to use condoms. Their inability to do so with the frequency and consistency that they would like is related to the preferences and demands of men. Were a woman to demand or request condom use of their migrant partner, this is often tantamount to an accusation of infidelity. Both are perfectly aware that this happens. But any such accusation or imputation by a disempowered rural partner is likely to lead to reprisals or even violence.

- As indicated above, the varying frequency of return of Mozambican and Swazi migrants does not appear to have a significant impact on the sexual behaviour of migrants while at work in the mines. Where it might make a difference is in the rural areas from which migrants emanate. Although the evidence is highly circumstantial, the comparison between Mozambican and Swazi women suggests that the Mozambican partners may be more prone to forming other relationships outside their primary relationship with their usually absent partner for a host of different reasons including emotional and financial support. One study has shown that many Mozambican migrants form longer-term attachments at the place of work, even to the point of establishing second households with South African women (Lubkemann 2005). In some cases, increased poverty from a reduced flow of remittances (because of the demands of a second household in South Africa) may force some rural women to seek support through other relationships. However, most Mozambican migrants are forced to defer 60% of their pay to Mozambique, a policy that enjoys almost universal support amongst the partners of migrants (de Vletter, 1998).
- A final common feature that emerged in this study between Mozambique and Swaziland, both men and women, is the low levels of personal

knowledge of HIV status. This is clearly a conscious choice since testing is available and accessible to all. The reasons for the reluctance to be tested require further investigation. However, it is doubtful that even if the rates of knowledge of status were increased it would lead to higher rates of disclosure. Clearly, considerable stigma still surrounds the disease. Miners and partners are largely uninterested in knowing their status and in disclosing it to others, especially to their own partners and families.

- Like other studies before it, this study has demonstrated that mobility and vulnerability are intimately connected. It has also suggested that the causes and consequences of vulnerability of migrants and their partners are intimately connected though not always with the predictability that unilinear models of transmission and risk might suggest. The study has also indicated that while it is possible to generalize across mine-sending areas, there is also a need to acknowledge regional and local specificity in the way in which vulnerability HIV and AIDS is perceived, internalized and acted upon.
- Several key issues need to be addressed in order to try and reduce the vulnerability to infection that currently pervades mine-sending areas outside South Africa. These include:
 - (a) the fact that mine migrants remain highly vulnerable to infection and that workplace prevention programs may still not be having their desired effect or may well be irrelevant anyway;
 - (b) the potential importance of radio as a tool for communicating actionable messages and information about the disease in migrant settings in both origin and destination areas (Pridmore and Yates 2005). What remains unclear, however, is whether such airwave knowledge is being translated into behavioural change;
 - (c) a major obstacle to change, and to reducing the vulnerability of women within mine sending areas, continues to be unequal gender relations.

Women still find it extremely difficult, in the face of male intransigence, to protect themselves adequately from infection. Empowerment of rural women remains a critical objective in rural migrant-sending areas connected so intimately to the high-risk environment of the mines.

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