Workshop on

"Inter-relations between Development, Spatial Mobility and HIV/AIDS :

contributin ot policies and porgrammes against HIV/AIDS"

 $1^{st} - 3^{rd}$ September 2004, Paris ,

CICRED and UNDP South East Asia HIV and Development Programme (SEAHIV)

IMPACT OF HIV/AIDS ON THE MINING SECTOR, WITH SPECIAL EMPHASIS ON SOUTHERN AFRICAN MIGRANT WORKERS

By Leon Swartz and Dikeledi Nkau

IMPACT OF HIV/AIDS ON THE MINING SECTOR, WITH SPECIAL EMPHASIS ON SOUTHERN AFRICAN MIGRANT WORKERS

By Leon Swartz and Dikeledi Nkau

1. INTRODUCTION AND BACKGROUND

Migration across borders and within countries is both a cause and a consequence of major social changes throughout the world. Migration typologies generally differentiate between international and internal migration. On an international level, migration predominantly takes place from countries in less developed regions to more developed countries, particularly those in Europe and the United States, mainly for economic or labor-related reasons (Connell, 1992; Heisler, 1992). Rural-to-urban streams have historically dominated internal migration.

In South Africa, most of the internal migration can be ascribed to the policy of Grand Apartheid (Urban Foundation, 1990). In accordance with this policy, homelands were created in the 1970s and they were overpopulated and economically depressed. Migration was chiefly motivated by economic considerations and was generally directed towards the large metropolitan areas and important economic hubs, such as mines, where migrants hoped to secure employment.

At the same time, international labour migration streams brought able-bodied men from as far afield as Mozambique, Malawi, Lesotho, Zambia and Tanzania to work in the South African mines. Since migrants were not allowed to relocate with their families, their movements became cyclical, between the mines and their various areas of origin. While working migrants were housed in singlesex hostels near the mines, they were granted limited leave each year, when they were encouraged to return to their areas of origin. This was done to ensure that migrants returned to their areas of origin once their contracts expired.

Migration is considered to be an important risk factor in the transmission of communicable and sexually transmitted diseases and migrants are often held responsible for introducing and spreading HIV/Aids in host countries. Studies generally support the existence of a relationship between migration and HIV/Aids and have found that migrant men in KwaZulu-Natal are significantly more likely to be HIV positive than non-migrant men (Lurie, Williams, Zuma, Mkaya-

Mwamburi, Garnett, Sturm, Sweat, Gittelsohn and Karim, 2003). It has also been found that HIV/Aids among rural women in Kenya can be linked to return migration of male migrants from the cities (Brockerhoff and Biddlecom, 1999).

The intricate link between migration and HIV/Aids is mediated by a number of variables, including poverty and power differentials emanating from the expendable income available to miners in this context. Since they mostly migrate alone and live in isolation from social networks back home, migrants have a limited capacity to handle the prodigious work-related stresses they are exposed to. In most instances, mineworkers leave their countries and homes on their own, leaving their regular partners or wives, to stay in single-sex hostels.

They are faced with daily risks and injuries associated with underground work. As a result, when they take a break, they tend to engage in risky behavior, such as becoming involved in multiple sexual relationships, using dagga (marijuana) and drinking alcohol. It is not surprising then, that migrant mineworkers are exposed to a high risk of HIV infection.

The relationship between migration and HIV/Aids is rendered more complex by the fact that it not only affects migrants, but also the communities of origin and destination. It is, therefore, important to understand how migrants interrelate with these communities. This study will shed more light on the relationship between migrants and the community of destination in the context of HIV/Aids.

2. AIMS AND OBJECTIVES OF THE STUDY

A major objective of the study was to understand the extent of HIV prevalence in the mines and to ascertain the perceptions of the local community about migrant mineworkers.

The objectives of the study were to understand the circumstances under which migrant mineworkers interact with the local community; the contribution of migrant mineworkers to the local economy of Carletonville; the extent of sex education in the mines; how commercial sex work operates in mining areas; and the preventive methods used by migrant mineworkers.

3. AREA OF RESEARCH

The study was conducted in Carletonville, a small town in the Gauteng province dominated by goldmines. The town of Carletonville and the mines form part of Merafong City (refer to Annexure 1 for the map of Carletonville). Table 1 gives an overview of the socio-demographic characteristics of this local authority, based on 1996 and 2001 census information. Between 1996 and 2001, the total population of Merafong City increased by less than half a percent to 210 481 in 2001.

As expected, males are proportionally better represented than females, with males constituting just less than 58% of the population. This predominance is clearly illustrated in Figure 1. Males particularly predominate in the economically active years of 15-60. This majority is, however, eroded by a combination of retrenchments and the impending transformation of single-sex hostels into family units. A total of 36 910 hostel residents were enumerated in the 2001 census. Of these, 1,4% were children under the age of 15 years and 2,8% were female. Most hostel residents (97,2%) were male.

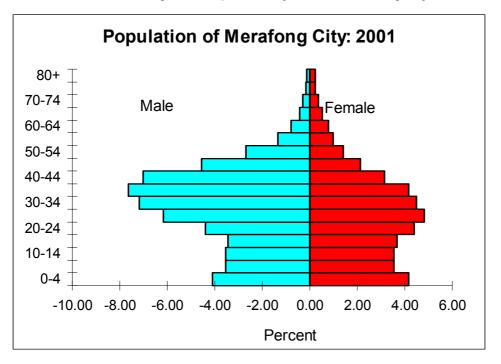


Figure 1: Population Pyramid of Merafong City

Statistics South Africa, Census 2001

Merafong City is comprised of Carletonville, Khutsong, Fochville, Kokosi, Wedela (a township that was built by Anglogold for its employees), as well as the surrounding mining and farming areas. It is surrounded by private and government houses, as well as informal settlements. The community of Merafong City is made up of Black and White communities, as well as migrant and non-migrant workers. As can be seen from Figure 1, there are more males than females, the reason being that most men live in mine hostels. There are nuclear and single parent families, as well as childheaded and granny-headed households, in the township.

	along city			
Persons	1996		2001	
Africans		174 005		175 667
Coloured		1 444		1 595
Indian		231		270
White		32 669		32 949
Total Population		209 776		210 481
Gender by Age	1996		2001	
Male				
0-4		7 719		8 645
5-14		12 865		14 937
15-34		55 830		44 634
35-64		55 476		50 607
_ 65+		1 795		2 134
Female				
0-4		7 788		8 769
5-14		13 176		14 886
15-34		30 738		36 491
35-64		19 029		26 520
65+		2 189		2 858
Total male population		133 685		120 957
Total female population		72 920		89 524
Labour force	1996		2001	
Employed		108 227		83 626
Unemployed		22 264		32 695
Not Economically Active		-		42 409
Total Labour Force		-		116 321
Occupation	1996		2001	
Agriculture/Forestry/Fishing		2 072		2 403
Community/Social/Personal		4 114		6 432
Construction		1 829		2 003
Electricity/Gas/Water		499		189
Financial/Insurance/Real Estate/Business		2 034		2 984
Manufacturing		1 840		2 397
Mining/Quarrying		2 397		1 840
Other		80 456		51 202
Private Households		6 016		4 956
Transport/Storage/Communication		1 652		1 375
Wholesale/Retail		4 664		5 937

Table 1: Socio-demographic information from the Censuses undertaken in 1996 and 2001,

Merafong City

Source: http://www.demarcation.org.za/municprofiles2003/statistics/stats_CBLC8.html

Although the mining and quarrying sector still dominates the employment market (providing 61,23% of all employment opportunities), it is important to note that this sector shed 29 254 jobs between 1996 and 2001. Some job opportunities were created in other sectors, such as manufacturing, wholesale and retail but they are not nearly enough to offset the cutback in mining. As a result, unemployment increased by 46,8% to just under 32 700 individuals in 2001. In line with the drop in employment opportunities in the mining sector, the number of males in the age group 15-64 decreased by 14,4% between 1996 and 2001. Curiously enough, the female population grew by 26,6% during this time. It is unclear whether the increase in females is due to family unification, or whether many females moved in on their own for other reasons.

4. METHODOLOGY

This study utilised in-depth interviews and focus group discussions. The in-depth interviews were conducted with key informants, namely the HIV/Aids coordinators in the Anglogold mines, the coordinator of the local NGO dealing with HIV/Aids issues, the Community Home-based Care project coordinator and a priest. The focus group interviews were conducted with the migrant mineworkers at Savuka Mine, which forms part of Anglogold. It was envisaged that the views of key informants would represent the local community's views on mineworkers.

Three focus group discussions were conducted among migrant mineworkers speaking Xhosa, South-Sotho, Zulu, Tswana and Swazi. The three groups were comprised of participants from Lesotho, Swaziland, Botswana, KwaZulu-Natal and the Eastern Cape. The researcher requested that the three groups be comprised of migrant mineworkers from different areas in South Africa, as well as from different countries. No incentives were provided to participate in the focus group sessions, which lasted between one hour and one and a half hours. Data collection was done for one week and the interviewer did not have difficulty in switching from one language to the other.

It was envisaged that existing data from studies conducted in the area, together with information from in-depth interviews conducted with key informants in Carletonville and focus group discussions among migrant mineworkers, would provide an understanding of the relationship between mobility, HIV/Aids development and related issues, with possible policy and pragmatic implications.

5. LABOUR MIGRATION IN SOUTH AFRICA

Mining and agriculture are the cornerstones of the South African economy. While the mining sector does require some skilled labour, its workforce has historically been male-dominated and relatively low-skilled. In order to service this labour-intensive sector, South African mines have historically been heavily dependent on exploitive labour migration. A number of centres, such as Carletonville, Klerksdorp, Welkom and Rustenburg, are presently highly dependent on the mining sector for survival.

Southern Africa has a long history of organised and informal labour migration between its territories. The origins of the labour migration pattern go back to the 19th century, when South Africa set up a recruiting agency to encourage workers from Mozambique, Namibia, Lesotho, Malawi, Swaziland and Botswana to work in South African diamond and goldmines. Thus far, trends in labour migration in SADC indicate a flow mainly towards South Africa and, in some cases, Botswana.

The current waves of migration do not only include mine and agricultural workers, but also professionals and skilled workers. According to a report on labour migration to South Africa in the 1990s, published by the International Labour Organization (ILO), the 1990s saw a marked rise in the flow of labour migrants to South Africa from the southern African region. This flow is related to the political liberalisation within South Africa and the continued deterioration of the economies of many neighbouring countries.

6. INTERNAL MIGRATION IN SOUTH AFRICA

Internal migration has also taken place between and within provinces in South Africa. Formal restrictions on African urbanisation within South Africa were lifted in the late 1980s. This brought about an opportunity for families rather than individuals to migrate from rural to urban areas and the expectation that circular or temporary migration within South Africa would be replaced by the permanent settlement of people at their places of employment. As a result, urban migration, in turn,

created enormous informal settlements, particularly in and around the Gauteng province. Based on the 1996 census data, Kok, O'Donovan, Bouare and Van Zyl (2003) analysed the interprovincial migration in South Africa. They found that, between 1992 and 1996, Gauteng was the most preferred destination (475 159), followed by Western Cape (187 000), Mpumalanga (107 000) and North West (106 000). In their analysis, Kok et al (2003) also found that the major moves were from provinces in which a larger proportion of the population was formerly living in homelands. Most of these homelands were predominantly rural.

In 1997, an estimated 71 000 mineworkers lived in the Carletonville mine hostels. On average, the mineworkers were in their late 30s and most of them (56% in 1998 and 66% in 2001) had a primary education. Few originated in the immediate area and the majority came from rural areas, other urban areas within South Africa and even other countries. According to the Population Council (2004), mineworkers earned R 1 690 on average in 2001.

7. THE HIV/AIDS SITUATION IN SOUTHERN AFRICA

HIV/Aids prevalence varies significantly between and within southern African countries. According to the UNAIDS/WHO (2002), some 2,4 million people died as a result of Aids in 2002. An estimated 3,5 million new infections were recorded in the same period. HIV prevalence has increased significantly in Botswana (38%), Lesotho (31%) and Zimbabwe (33,7%).

Although the first South African case of HIV/Aids was reported in 1982, the Department of Health started conducting antenatal surveys to test for HIV in 1990. Since then, the HIV prevalence in sexually active women between 15 and 49 has increased from 0,8% to 26,5% in 2002, according to the methodology used by the Department of Health (refer to the figure below).

The recent Nelson Mandela / HSRC study (2002) found a generalised HIV prevalence rate of only 11,4% across all population groups, i.e. Black, White, Coloured and Indian. Out of this figure, 5,6% were children in the 2-14 age group, 9,3% were young people in the 15-24 age group and 15,5% were adults aged 25 and over (Shisana and Simbayi, 2002). An HIV/Aids projection by Rehle and Shisana (2003) showed that the annual number of Aids deaths in 2010 will be 470 420. The estimated number of Aids deaths will severely affect life expectancy in the country. Controlling the

alarming effects of HIV/Aids is one of the most significant challenges facing the country. Figure 2 illustrates the increase in HIV/Aids prevalence from 1990 to 2002.

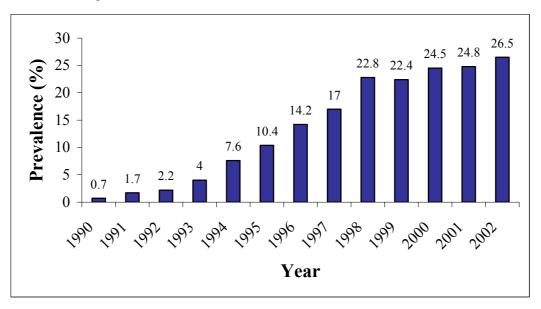


Figure 2: South African HIV/Aids Prevalence Rates, 1990-2002

8. MIGRATION AND HIV/AIDS: LINKS AND VIEWPOINTS

Migration definitely increases the risk of HIV infection. Studies conducted throughout southern Africa show a higher HIV prevalence among mineworkers (International Organization of Migration, 2003) than among the sedentary population. A recently conducted Zambian study found an 18% prevalence rate in a sample of 8 523 surveyed mineworkers (IOM, 2003).

A great deal of research has been done among migrant mineworkers in South Africa. Evidence from these studies also suggests a significant relationship between migration and HIV/Aids. Lurie et al (2003) found a higher HIV prevalence among migrant workers (25,9%) than non-migrants (12,7%) in KwaZulu-Natal. In 1998, a baseline study conducted by Mothusimpilo, a community-based outreach programme¹, showed that 28% of mineworkers in Carletonville tested HIV positive.

Source: Department of Health, 2003

¹ This is a community-based outreach programme started in Carletonville in 1994. It uses a combination of interventions already proven to have the best impact on preventing the transmission of HIV and STIs. The aim of the programme is to reduce the transmission of STIs and HIV in the mining community and the

A follow-up survey conducted in 2001 (Population Council, 2004), indicated an increase to 36%. The results are presented in Table 2.

The reason for such an increase was that, until 1998, mineworkers who tested HIV positive were sent back home or to their country of origin. Subsequent to that, South African mines established workplace programmes, i.e. preventive and treatment programmes, which enables them to keep their HIV positive employees and offer them treatment. Studies show that HIV prevalence in the mining sector varies from mine to mine. According to Daly et al (2000), prevalence figures in 2000 fluctuated between 23% in the Welkom mines and 28,5% in the Carletonville mines.

Among the commercial sex workers, or *"women at high risk"*, as they are called by Mothusimpilo, 70% tested HIV positive. These are women aged 13 to 25, who provide their services to some of the mineworkers. Mothusimpilo educated these women, as a target group, on sexual risk factors. The organisation also promoted the use of condoms and STI preventive treatment, using the Periodic Presumptive Treatment (PPT) method. Women at high risk who presented with STI symptoms were given Zithromax, two tablets immediately and another two tablets after four weeks.

communities in Carletonville. Mothusimpilo's interventions include: (i) peer group education of women at high risk, youth in and out of school and mineworkers; (ii) syndromic management of STIs by improving awareness to seek treatment and improving quality and effectiveness of treatment; and (iii) community-based condom distribution through community mobilisation and research (an HIV/Aids Good Practice Case Study of a Community-based HIV/Aids Prevention Programme, 2001).

Categories of HIV positive people in	1998	2001	HSV (2)**
the community			
CSW*	70%	76%	62%
Women	60%	45%	71%
Men	40%	20%	42%
Mineworkers	28%	36%	63%

Table 2: HIV Prevalence in Carletonville and in the Mines

Source: Mothusimpilo Surveys of Carletonville community

* Commercial sex workers

**Herpes Simplex Virus type 2

9. RESEARCH FINDINGS

The in-depth interviews and the focus group discussions centred on various issues related to migrant workers interrelated with the local communities, for example, whether migrant mineworkers are seen as contributing to the economy of the town and how the relationship between HIV/Aids, migrant mineworkers and other related factors are perceived. The challenges and concerns about HIV/Aids were also addressed and community members were asked about their ideas on solutions to challenges. Participants were asked a number of questions to clarify the relationship between migrants and local communities, including questions on the living arrangements and recreation of migrant mineworkers, interaction with and perception of the local community, migrants as development resources in Carletonville and the extent of HIV/Aids in Carletonville.

9.1 Living Arrangements and Recreation of Migrant Mineworkers

Although some mineworkers stay in townships and informal settlements, migrant workers usually stay in single-sex hostels on the mines. Comparing the number of mineworkers with the number of rooms, participants indicated that there were between three and eight people living in one room. While some of the mineworkers who participated in the study wanted the single-sex hostels to be converted into family complexes, others preferred the current set-up. Converting single-sex hostels into family complexes would be a strategy to combat the spread of HIV infection. Mineworkers

staying in hostels are allowed to have their families, especially their wives, visit once every six months. During that period, the mineworker and his family stay in the wives' visiting rooms.

Although the accommodation and meals are free of charge, mineworkers are not happy with the quality of the meals they are served. According to participants, *"they are not the type of meals that build the immune system to prevent infections".*

The type of recreation offered includes watching videos and visiting the bar. The exclusive recreation offered by one of the mines visited was listening to the mine radio station. The radio station can reach all the mineworkers, including those who are underground. Another form of recreation repeatedly mentioned was connecting with "women at high risk".

9.2 Interaction with, and Perception of, the Local Community

Adapting to the area of destination depends on the different characteristics of migrants, such as the language they speak and how they present themselves to the local community. When asked whether migrant mineworkers interacted with the local community, respondents had conflicting opinions. Some stated that there was a great deal of local resentment, especially towards the Mozambicans. Other migrant mineworkers are accepted by the community of Carletonville.

"The Mozambicans and the Zambians are more marginalised than the other migrants. People from Lesotho, Botswana and Swaziland are better accepted because they have relatives around and they can speak the local languages. There are men from Lesotho, however, called "the Russians", who wear blankets and carry knobkesries² and are not accepted in the community, because they are seen as violent. Together with some of their women, they attend "stokvels" in the township and make a noises.

"The migrant mineworkers do not integrate with the larger community. The structure of the mines does not provide an environment for families. The mines wanted a workforce and not families. Therefore, the miners interact with the people they work with. I see it when someone from the

² This is a bludgeon or a throwing stick

mines dies - he would be taken back home for burial, leaving the wife and children in Carletonville. Secondly, they cannot be integrated in the community, because they are in transit."

It appears that some of the migrant mineworkers have second families in South Africa.

When asked whether there was a way in which they dealt with the issue of xenophobia in the community, one of the participants reacted:

"There are specific programmes dealing with xenophobia in the community. After 1994, however, the children of foreigners who had been in the country for a long period of time were integrated into the community. Some of the women who entered the country illegally stay in the informal settlements and their relatives and husbands visit them on weekends. In the past, Mozambicans were only allowed to visit if they could produce documentation."

The key informants had conflicting views about the attitude of the community towards migrant mineworkers:

"Migrants are seen as breadwinners. They are seen as a source of income because they have steady jobs and get lucrative salaries. Tsotsis / thugs / muggers, women and everybody in the community want to get their hands on their money."

"There are no firms in Carletonville, so the rate of unemployment is high. Local people complain that migrant mineworkers take their jobs because the majority of mineworkers are from outside the town."

"Local men do not accept migrant mineworkers. They have money and give it to the local ladies; therefore local men see them as their competitors."

"The community accepts us as mineworkers. They treat us well. I have worked for twenty years in the mines and have never seen any form of resistance or discrimination against migrant mineworkers." The issue that was frequently mentioned by focus group participants was that, because most of the migrant mineworkers had been in the country for more than ten years, they had established a good relationship with the community of Carletonville.

9.3 Migrants as Development Resources in Carletonville

Literature on migration and development asserts that migrants have always been viewed as contributing to the economy and development of both the sending and the receiving countries (Adepoju, 2003). While participants were aware that migrant mineworkers were sending remittances home, they were also of the opinion that migrants were contributing immensely towards the economy of Carletonville. They are regarded as the only people with steady jobs.

"Migrants contribute a lot to the economy of Carletonville, because they are the ones who are working and buying commodities, such as food and clothes. Older migrant mineworkers buy durable goods and send them home. If the structure of contribution were used, their contribution would be significant. The economy of the town would go down, because most of the local people are unemployed and, therefore, don't have any buying power. Furthermore, mine work is not a priority for local people. Therefore, migrant mineworkers are important."

Another participant had this to say about the contribution of migrant mineworkers:

"All the businesses in Carletonville depend on the revenue produced by the mines. Local youngsters see mine work as risky because of the falling rocks and mine employers see them as people who do not want to engage in hard labour. Therefore, the mines depend on migrants from rural areas and other countries."

Taking into account the socio-economic situation of the majority of people living in Carletonville, participants unanimously agreed that migrant mineworkers have made an enormous contribution to the economy of the town.

9.4 Extent of HIV/Aids as a Problem in the Community

HIV/Aids is seen as a major problem in Carletonville. All participants of the study echoed this statement. There were different views linked to the situation, however. Participants expressed their views as follows:

"HIV/Aids is a serious problem. I do not, however, believe that it affects our community more than other communities. The media coverage and the large amount of research done in this area give the impression that this community is severely affected by the epidemic."

Another one commented:

"HIV/Aids is a huge problem in Carletonville, because migrant mineworkers have casual sexual relationships all over the townships. Even local men leave their wives to stay in the mines to have more freedom. In town, there are backrooms rented by people who migrate from rural areas to work in Carletonville and they stay with migrant mineworkers."

"People die in large numbers in Merafong City Council. The town is going through a phase in which a second cemetery has had to be opened. The only day when we don't have a funeral is on a Monday and the people being buried every day are youngsters. When we follow the history of the illness, we find that it is HIV-related. The most unfortunate fact is that the funeral schemes are reluctant to pay out for such funerals."

Although HIV/Aids is seen as a problem in Carletonville, research participants stated that they did not see migrant mineworkers as the only people who spread HIV and sexually transmitted infections.

9.5 Views and Practices regarding HIV/Aids and Health

The most interesting and conflicting views from key informants and migrant mineworkers were centred on the issue of HIV/Aids at the mines. The key informants were concerned about mineworkers who have multiple relationships and those who connect with commercial sex workers

without using condoms consistently. The study participants saw prostitution as a practice in which women from neighbouring towns and rural areas were engaged. Furthermore, participants asserted that, while monogamous relationships might not be possible for migrant mineworkers, they needed to make consistent use of condoms. The participants commented:

"Most migrants seem not to like this area, because they think the local women are HIV positive. We always hear them commenting that they only use a condom in South Africa and that when they go to their wives back home they do not use a condom."

The use of condoms with wives back home was a real problem for migrant mineworkers. They did not know how to introduce the subject of safe sex after six months of absence. The majority of them agreed:

"We use condoms with the women we link up with and find it difficult to use them with our wives at home. How do I tell my wife that I am going to use a condom with her, after I was away for more than six months? Will I be telling her that I have been dishonest with her?"

Participants from the focus groups stated that condom use was important.

"It is good to use condoms, because these women are not written (it is not written on these women's foreheads) that they have HIV/Aids. Therefore, whoever does not trust must condomise".

Some of the migrant mineworkers questioned the quality of condoms supplied free of charge. They found them unattractive, because they had lubricants which, according to them, "have worms that are responsible for HIV infection among the users". This gives an indication of the negative and rigid mindset towards condom use that still prevails. A great deal of persuasion is necessary in this regard. Advocacy on the use of male and female condoms needs to be intensified.

9.6 Commercial Sex Work in the Area

Commercial sex work is seen as a lucrative business that will persist as long as the mines continue to operate in Carletonville. Most of the role-players in this business are women from rural areas and towns in the vicinity of Carletonville. They stay in informal settlements or rented rooms in town. The sexual network identified by the Population Council and Mothusimpilo in Carletonville is complex. The diagram below illustrates the complexity of the network.

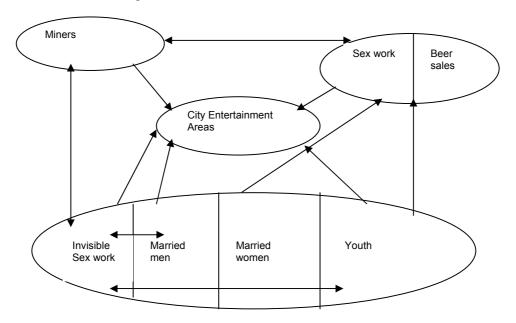


Figure 3: Sexual Networks in Carletonville

Source: Population Council Report

The participants in the study, particularly the key informants, did not give any explanation contrary to the one illustrated in the figure above. The participants in the focus groups discussions were, however, careful of how they talked about their connection with women at high risk. They only mentioned that when they had any sexual desire, they went to *"these women"*. Although the community of Carletonville perceives sex work to be the business of women from the neighbouring towns and countries, the studies conducted by Mothusimpilo and the Population Council found that there were women within the Carletonville community who practised as sex workers. Some of the key informants declared:

"Prostitution is a problem in town. Because Carletonville is a small town, people know each other. Therefore, local girls don't practise prostitution. Instead, girls from the rural areas and other towns, who are not known in the community, rent rooms in town and practise prostitution there."

"What happens is that, around each mine, there is an informal settlement. Most of the women from such places make money through sex and alcohol. They have mineworkers as their paying sexual clients."

The Population Council Report (2004) presented different findings. Mothusimpilo had been treating commercial sex workers with the Periodic Presumptive Treatment (PPT) method, because it was assumed that they were the only people rendering this type of service to mineworkers. While the incidence of sexually transmitted infections among commercial sex workers did, in fact, decrease, it remained high among mineworkers, however. Subsequent studies showed that there were "hidden" commercial sex workers in the community. This proved that the larger population of Merafong City Council was at risk. The mechanism involved in this 'hidden' sex work is illustrated in Figure 3.

According to the explanation offered in Figure 4, mineworkers buy at the same store as residents of the informal settlement. This store is reached by using routes A and C. The third leg of the triangle, route B, illustrates the path used by *women at high risk* to visit clients at the mines from the informal settlements. Many transactions are, however, much more impromptu, completed in the bush between these three roads.

Respondents reveal that women often await potential clients next to route A, the path connecting the store with the mine compounds, lingering around playing cards while sitting in a circle. Women know that mineworkers frequenting this road have money to spend at the store and hope to appropriate some of it on the way. It is from this circle of women that passing men choose sex partners before disappearing into the bush to close the contract. According to these women, they provide the condoms. Condoms are apparently buried in the ground after use.

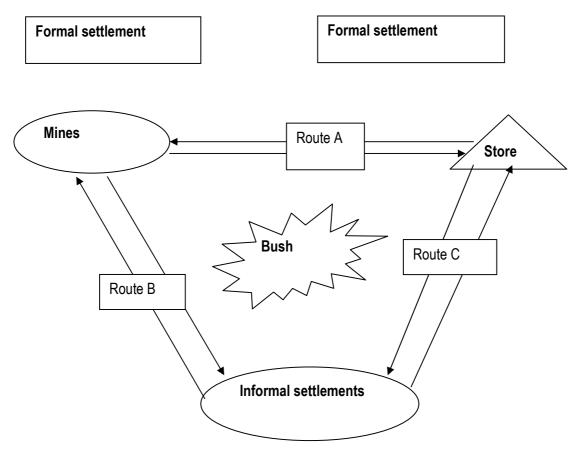


Figure 4: Scenario of how Sex Work operates at the Mines

Mineworkers observe good safety and health practices while at work. For example, preventive methods, such as voluntary testing and counselling (VCT) and wearing protective clothing and gloves when assisting injured and bleeding colleagues, were echoed in all the three focus group discussions. It came out clearly from the discussions, however, that the people repeatedly going for VCT are those who tested negatively before.

The HIV/Aids coordinator collects the monthly VCT statistics. The statistics for voluntary counselling and testing between January and March 2004 are presented in Table 3. According to the participants, campaigns are only successful when they are coupled with incentives. The figures above show that, in February, more mineworkers agreed to be tested. This was apparently because there was a campaign and T-shirts were distributed.

	Table 3: VCT in Ang	logold Mines	
Г	NI 641 1		-

Name of the mine	January	February	March
Mponeng	13	19	13
Savuka	16	52	32
Tautona	18	53	34

Source: Savuka Mine

9.7 Preventive Methods in Mining Areas

Participants were mainly asked to state their views on HIV/Aids and which HIV/Aids preventive methods they thought migrant mineworkers were using. The focus group participants mentioned that they were aware of the safety measures, including condom use, abstinence and voluntary counselling and testing. They also mentioned that condoms were placed at all public places for easy access. One of the participants stated that males had now started requesting female condoms, because they wanted their partners to use condoms as well.

Participants had the following opinions:

"Mineworkers need to be taught that they are responsible to their families back home. They should also use condoms if they have casual relationships at their place of employment. They should also be educated about the myths around condom use. Most people see condoms as a way to prevent them from enjoying sex."

"Effective distribution of condoms and intensified education should be provided to the mineworkers".

Although some of the participants stated that condom use prevented people from enjoying sex, participants in the study were mindful of condom use.

9.8 Major Challenges, Needs and Concerns of the Community and Migrant Mineworkers in relation to HIV/Aids

9.8.1 Challenges identified by the key informants

Participants identified a number of challenges in the fight against the epidemic.

Participants are concerned about family disintegration and that the concept of 'Ubuntu³' has fallen apart:

"Families disintegrate, due to husbands leaving their homes to stay at the hostels."

"HIV/Aids has a negative impact on the social functioning of the community. There are increasing numbers of child-headed and granny-headed households."

The Community Home-based Care coordinator, who participated in the interview, mentioned that, out of a population of 48 559 in Khutsong, some 189 child-headed households and 129 granny-headed households received care and support. These households were mainly comprised of people affected by HIV/Aids.

"Risk factors evolve around ethnic groups. The mindset and cultural beliefs of some mineworkers still need to change, because they do not stick to safe sex methods. The key informant stated:

"Alcohol abuse is the major problem associated to the spread of HIV/Aids. There are taverns and supermarkets that open seven days a week to sell liquor".

"HIV/Aids is putting us far behind in terms of development, because productive members of households are dying and it is also difficult to deal with the stigma. The local health service is not empathetic to people living with Aids (PLWA)".

³ A communal response where you are sensitive to the needs and culture of others in a helping cultural environment.

9.8.2 Challenges identified by migrant mineworkers

"The food we eat is not healthy. I think that if the mineworker is (HIV) positive, he should eat food to boost his immune system."

"We need to see people who have Aids; the company should not make it a secret. It should be declared on the death certificate that the person died of Aids and not TB."

"The government should provide 'good quality' condoms, because the ones that we have burst easily. The **lovers' plus** condoms that I buy are the best".

When asked what needed to be done to overcome the challenges, needs and concerns identified by the key informants and the focus groups, the following suggestions were made:

"Government should strengthen the supply of antiretroviral treatment (ARV)."

"Mine management should do something about the food they offer mineworkers. They should also employ dieticians to look into the nutritional status of the food we eat, as compared to the type of work we do."

"The mines should convert the single-sex hostels into family units, so that people can stay with their wives and have one sexual partner. The Department of Minerals and Energy needs to play a significant role to address the issue."

"We constantly use condoms as advertised but we still have many people dying of Aids. Could government investigate the reason why and advise us accordingly?"

"Partnerships between all stakeholders should be sustained. The relationship between the affluent and the poor should be nurtured. Wealthy people should be prepared to transfer skills to poor people who do not have the skills. Access to resources should not have barriers." "Communities need to be provided with information about risk factors in the mines, for example, due to work-related distress, mineworkers tend to indulge in drugs and alcohol. This may be dangerous to themselves and other members of the community. More education about HIV/Aids issues should be strengthened. I say this because communities still view Aids as a disease for someone else."

"Encourage mine management to set enough money aside for the HIV/Aids campaigns. The role of other business communities needs to be incorporated."

9.9 The Roles of Mine Management, HIV/Aids Coordinators and the Office of the National Union of Mines in the Mine

According to Bisseker (2001), the Anglo mines' HIV/Aids policy strategy includes:

- a. community-based HIV/Aids prevention and support initiatives;
- b. conducting voluntary HIV prevalence surveys at Anglo operations;
- c. encouraging large-scale voluntary counselling and testing for HIV;
- d. improving care for all HIV-infected employees and their families;
- e. offering cost-effective antiretroviral therapy to all workers suffering from Aids;
- f. preventing mother-to-child transmission;
- g. conducting mass campaigns for the prevention and treatment of sexually transmitted infections; and
- h. participating in Aids vaccine trials.

Migrant mineworkers, an HIV/Aids coordinator, as well as a representative from the National Union of Mines (NUM), confirmed that the HIV/Aids strategy recommended by Anglo management was in operation.

Carletonville mines employ HIV/Aids coordinators, either on a full-time or part-time basis. Their main functions are to educate and counsel mineworkers and their visitors, particularly their wives, about HIV/Aids and related issues. One of their main tasks is to train HIV/Aids peer educators selected from among the mineworkers. The peer educators participate in HIV/Aids campaigns and

education. Although retrenchment is a limiting factor, 26 mineworkers have been trained as peer educators.

The HIV/Aids coordinator's main concern is the lack of information in the rural areas, especially where the mineworkers come from. He finds it difficult to educate husbands who cannot impart knowledge to their family members.

Around 1996, the National Union of Mineworkers (NUM) started to negotiate the establishment of offices in the mines, with the objective, among others, of improving the working conditions of mineworkers. In 2003, the offices were established in the mines to attend to employees' everyday grievances. NUM members are satisfied with management, because they allow infected mineworkers to continue with their jobs.

One of the NUM participants commented, "If a person becomes more sick, it is only then that the mine releases him to go back home and he is given all the benefits due to him".

10. POLICIES AND DEVELOPMENT STRATEGIES IN THE MINING INDUSTRY

While it is recognised that the relationship between HIV/Aids and migration is an important issue, Appleyard and Wilson (1998) allege that this issue is not included in the political agendas of most governments. At the HIV/Aids Mining Summit, held on 30 April 2003, however, stakeholders committed themselves to establishing HIV/Aids policies and programmes at every workplace in the mining industry by 2004. They also acknowledged that prevention, treatment, care and support should be mutually reinforcing elements, which are integrated in a comprehensive response to HIV/Aidsⁱ.

According to study participants, there are policies and programmes in progress, which are aimed at the development of mineworkers. The available programmes include:

- a. training of HIV/Aids peer educators;
- b. training in computer literacy; and
- c. training in Adult Basic Education and Training.

Mineworkers are also encouraged to engage in Small Medium Micro Enterprises (SMME) projects, such as "spaza⁴" shops, as long as they abide by the rules of the mines.

In addition, Mothusimpilo has a programme that focuses on the empowerment of women at high risk. The programme obtained funding from Development for International Development (DFID) and uses the "peer education approach" to elevate these women. Women are taught how to negotiate safe sex with their clients, leadership, reading and writing skills, caregiving, health and safety techniques, lay counselling and the process of social grants. The Direct Observation Treatment Short (DOTS) training course is also presented to them, so that they can become DOTS supporters.

Anglogold paid the tuition fees for thirty women at high risk to attend ABET up to level 3. "Because they have knowledge of social responsibility towards the community, through Mothusimpilo, two women at high risk are enrolled to train as nurses at Goldfields Nursing College. There are those who went for beadwork training and those who are taught how to make powdered soap. The aim is to make these women self-reliant. They have funeral schemes and run their own stokvels and cash loan schemes."

11. CONCLUDING DISCUSSION

Respondents in the focus groups and in-depth interviews provided us with insights into issues regarding migrant mineworkers and discussed factors that made them vulnerable to HIV/Aids.

Although participants agreed that the mining sector should integrate HIV/Aids education and prevention and intervention programmes into mining work, they felt that an integrated collaboration between mining management, the three levels of government, the business sector and the community would make more impact. There are mine HIV/Aids coordinators who work closely with human resource management and the office of the National Union of Mines but their viewpoint is that mine management could do better. Mineworkers are aware of HIV/Aids preventive

⁴ It's a small shop within a house selling essential items

programmes in the company. Being aware of HIV/Aids does not, however, necessarily mean that they all have the right information.

11.1 Condom Use

Most migrant mineworkers are young and married and have left their wives to stay in single-sex hostels, or in the informal settlements close to the mines. Although respondents identified HIV/Aids as a sexually transmitted disease, some of them still insisted that condoms were not helpful, because people were still dying. Condoms were acceptable only for protective sex outside their marriages. Most of the focus groups participants admitted to having multiple sexual relationships in the neighbourhood.

It has always been assumed that women find it difficult to negotiate safe sex with their partners. It emerged from this study, however, that migrant mineworkers also find it difficult to do so. They assume that volunteering to use condoms with their wives would be a sign of mistrust and guilt. Conversely, they would not expect their wives to suggest condom use, because it would also be an indication of mistrust. There are also general perceptions that the freely supplied condoms are not as strong as the ones bought from the supermarkets. The most popular condoms are in a packet labelled *"lovers' plus"*.

11.2 Preventive Methods

Mineworkers gain more information about HIV/Aids from peer education and campaigns. They also know about the Voluntary Counselling and Testing (VCT) services offered by the mines. They only go for voluntary counselling and testing if there is an incentive, however, the only ones who go are mineworkers who tested negatively before. They also gain more information by sitting together in bars and exchanging ideas about HIV/Aids.

Focus group participants argued that they could be susceptible to HIV infection because of the type of food they eat. They complained that the meals were not nutritious enough to build their immune system. Participants in both the in-depth and focus group interviews concurred that single-sex rooms were not appropriate for mineworkers. They suggested that family units should be an alternative type of accommodation.

Mothusimpilo, the well-known outreach programme in the community of Carletonville, aimed at controlling the spread of HIV and sexually transmitted infection, has impacted positively on the lives of both commercial sex workers and mineworkers. Its peer educators' programme and the administration of Periodic Presumptive Treatment (PPT) have caused the rate of sexually transmitted infections to decline. Furthermore, commercial sex workers insist on condom use with their clients.

11.3 Migrant Mineworkers as Resources of the Economy

Participants of the study confirmed that migrant mineworkers contributed to the economy of Carletonville. Except for those who impose their traditional behaviour (the "*Russians*" from Lesotho), migrant mineworkers are recognised and accepted as part of the larger community. Some of the participants have been living in the country for more than ten years and have established their own families in Carletonville. There was also a different viewpoint from one of the in-depth interview participants. He argued that some of the migrant mineworkers were not popular in town, because they had extramarital relationships with the local married women. This disrupted many families.

11.4 Development Issues

Interestingly, it emerged from discussions with the HIV/Aids coordinator and the NUM member, that mineworkers were involved in many self-enriching projects, such as computer literacy, owning "spaza" shops and ABET. The mines are still hoping to establish a programme that will develop mineworkers' entrepreneurial skills. Also, Mothusimpilo prepares "women at high risk" to be self-reliant.

Although this study focused on migrant mineworkers, other types of movement may also be contributing to the spread of HIV/Aids. The success of HIV/Aids interventions in the mines depends on the migrant mineworkers themselves, as well as on the synergy formed between stakeholders.

12. RECOMMENDATIONS

Based on the results of the survey, the following recommendations may be considered.

12.1 Integrated Education and Training

Although the HIV/Aids coordinators on the mine talk to visiting wives, education on safe sex practices has to be reinforced by means of outreach programmes. To create better impact, migrant mineworkers need to be educated and skilled on how to communicate and introduce the subject of condom use to their wives and partners at home.

While respondents were very much aware of the existence of HIV/Aids and its magnitude in the mining industry, they had many misconceptions and stereotyped ideas, for example, that they could only get HIV infection from their casual sex partners. It is important to enhance the HIV/Aids awareness programmes.

Some mineworkers have misconceptions about condom use. There needs to be more advocacy in this regard. Packaging of condoms to make them more attractive to users could help, because most participants prefer to buy condoms labelled *"lovers' plus"* from the supermarkets. The danger lies in the fact that the condoms labelled *"lovers' plus"* may not be as affordable and available as those that are free of charge.

Mine companies should involve local communities in their awareness campaigns.

12.2 Working Conditions

The following issues should be considered:

As a preventive measure, converting single-sex hostels into family units should be a priority of mine management.

Increasing the frequency of family contacts and visits by wives of married mineworkers should receive serious consideration.

Issues related to the diet and nutritional status of mineworkers should also be regarded as important, because mineworkers are involved in hard labour that requires a lot of energy.

REFERENCES

Adepoju, A. 2003. "Continuity and changing configurations of migration to and from the Republic of South Africa." *International Migration*, Vol. 41, No. 1.

Appleyard, R., Wilson, A. Eds. 1998. "Migration and HIV/Aids." *Internal Migration Quarterly_Review,* Vol. 36(4), Pp. 443-642.

Bilsborrow, R. E., Zlotnik, H. 1992. "Preliminary report of the United Nations expert group meeting on the feminization of internal migration." *International Migration Review*, Vol. 26.

Bisserker, C. 2001. "Business turns its talent to helping babies." *Financial Mail,* February 23, 2001.

Brockerhoff, M., Biddlecom, A. E. 1999. "Migration, Sexual Behavior and the Risk of HIV in Kenya." *International Migration Review*, Vol. 33(4), Pp. 833-856.

Connell, J. 1992. "International manpower flows and foreign investment in Asia." *International Migration Review*, Vol. 26.

Day, J.H., Charalambous, S., Grant, A.D., Churchyard, G.J. 2000. "Integrated HIV prevention and care: Experience from the South African mining industry." *AIDS Bulletin*, Vol. 9(4).

Heisler, B. S. 1992. "The future of immigration incorporation: Which models? Which concepts?" *International Migration Review*, Vol. 26.

International Organization for Migration. 2003. "Mobile populations and HIV/Aids in the Southern African Region."

Kok, P., O'Donovan, M., Bouare, O., Van Zyl, J. 2003. "Post Apartheid Patterns of Internal Migration in South Africa." Cape Town: HSRC Publishers.

Lurie, M. N., Williams, B. G., Zuma, K., Mkaya-Mwamburi, D., Garnett, G. P., Sturm, A. W., Sweat, M. D., Gittelsohn, J., Karim, S. S. A. 2003. "The impact of migration on HIV-1 transmission in South Africa: a study of migrant and non-migrant men, and their partners." *Sexually Transmitted Diseases*, Vol. 30(2), Pp. 149-156.

Mattes, R., Crush, J. R., Wayne, R. 2000. "The brain gain: skilled migrants and immigration policy in post-apartheid South Africa." *Southern African Migration Project.* Cape Town: Southern African Migration Project.

Population Council. 2004. "Lesson from the Carletonville Mothusimpilo Intervention Project: 1998 to 2001." *Population Council Report.*

Rehle, T. M., Shisana, O. 2003. "Epidemiological and demographic HIV/Aids projections: South Africa." *African Journal of AIDS Research*, Vol.2 (1), Pp. 1-8.

Shisana, O., Simbayi, L. 2002. "South African national HIV prevalence, behavioural risks and mass media." Pretoria: Human Sciences Research Council.

Ricca, S. 1989. *International migration in Africa. Legal and Administrative aspects.* Geneva: International Labor Office.

Wilson, F. 1976. "International Migration in Southern Africa." *International Migration Review*, 10(4), Pp. 451-487.

ⁱ http://www.bullion.org.za/Departments/HEALTH/AIDS/Intent.pdf