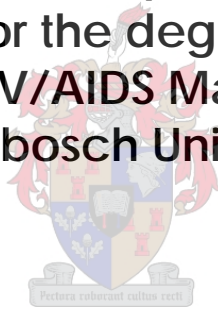


THE IMPACT OF HIV/AIDS ON THE MINING SECTOR IN SOUTH AFRICA – a survey

Jennifer Edith Terwin

Assignment presented in partial fulfillment of the
requirements for the degree of Master of
Philosophy (HIV/AIDS Management) at
Stellenbosch University.



Study Leader – Prof Jan du Toit

April 2005

ABSTRACT

This study is based on a survey conducted by the Bureau for Economic Research (BER) on "The impact of HIV/AIDS on Selected Business Sectors in South Africa- 2004". This report strives to highlight how and to what extent HIV/AIDS has affected the mining sector in South Africa, as well as to assess this sector's awareness and response to the epidemic. A questionnaire was sent to 977 operating mines, quarries and mineral processing plants. A response rate of 10.8% was achieved.

The survey shows that the impact of HIV/AIDS on the mining sector has been severe. The survey results reveal that many mines are already facing the consequences of the epidemic. Almost half of the large mines surveyed indicated that HIV/AIDS has already had a significant adverse impact on their operations while 75% of these mines and roughly 50% of both the small and medium sized mines envisage a significant negative impact in five year's time. It appears as though the impact has been more noticeable on the production side. The majority of the participating mines indicated that the epidemic has also led to higher labour turnover rates, lost experience and skills and higher recruitment and training costs. With regard to profits, 62% of the mines surveyed reported that the epidemic has had an adverse impact on the bottom line.

The survey also shows that the mines lead the way in the response to the implementation of HIV/AIDS policies and programmes. However, smaller mining operations are still lacking in their response to HIV/AIDS prevention and treatment programmes.

OPSOMMING

Hierdie studie is gebaseer op 'n opname deur die Buro vir Ekonomiese Onderzoek (BEO), 'Die impak van MIV/VIGS op geselekteerde besigheidsektore in Suid-Afrika – 2004'. Hierdie verslag ondersoek hoé en tot watter mate MIV/VIGS die Suid-Afrikaanse mynbousektor beïnvloed, asook die sektor se bewustheid van en reaksie op die epidemie. 'n Vraelys is aan 977 werkende myne, steengroewe en mineraalprosesserings-aanlegte gestuur. 'n Responskoers van 10.8% is behaal.

Die opname toon dat die impak van MIV/VIGS op die mynbousektor ernstig is. Die resultate toon dat 'n aansienlike aantal myne reeds die uitwerking van die epidemie ondervind. Amper die helfte van die groot myne wat gereageer het, het aangedui dat MIV/VIGS reeds 'n beduidende negatiewe uitwerking op hul werksaamhede gehad het, terwyl 75% van hierdie myne en ongeveer 50% van beide klein en medium-grootte myne 'n beduidend negatiewe impak oor die volgende vyf jaar verwag. Die impak blyk meer duidelik in die produksiekant te wees. Die meerderheid deelnemende myne het aangedui dat die epidemie ook gelei het tot 'n hoër arbeidsomsetkoers, 'n verlies aan ondervinding en vaardighede en hoër werwings- en opleidingskoste. In terme van winsneming, het 62% van die deelnemende myne aangedui dat die epidemie hul winsgewendheid benadeel het.

Die opname het ook getoon dat die mynbousektor die leiding geneem het in terme van die implementering van MIV/VIGS-beleid en -programme, maar dat kleiner mynbouoperasies steeds in terme van hul MIV/VIGS-voorkoming en -behandelingsprogramme agter is.

INTRODUCTION

In a report by UNAIDS¹, they state that almost five million people worldwide became newly infected with HIV in 2003, the greatest number in one year since the beginning of the epidemic. AIDS has killed a staggering 20 million people since the first cases of AIDS were diagnosed in 1981. By far the worst affected region, sub-Saharan Africa is home to an estimated 25 million people living with HIV/AIDS. In South Africa, between fifteen and twenty percent of all adults are estimated to be infected with HIV. Given the high HIV infection rate and the size of the population, South Africa has the largest number of people (± 5 million) living with HIV/AIDS in the world. The social and economic consequences of these figures are far reaching.

Mining has always been a major employer in South Africa and has played a leading role in the economy. However, its importance has declined over the last ten years and currently accounts for roughly 7% of GDP.² The mining sector has been at the forefront in the fight against HIV/AIDS by taking the initiative and making a sustained effort to prevent new infections and manage the disease in South Africa. This has in part been due to the fact that the impact of HIV/AIDS was to a large extent first felt in this sector of the economy.

Labour is a vital input in mining and as a result of mechanization being difficult in some mining operations, the industry is very labour intensive. The mining sector's use of labour is conducive to certain risks with regard to HIV transmission. The mining sector makes extensive use of migrant

¹ UNAIDS, June 2004: "2004 Report on the Global AIDS epidemic."

² SARB Quarterly Bulletin, September 2004 p. S-113. South African Reserve Bank.

labour with many mineworkers accommodated in single-sex hostels and only paying occasional visits to their families. This movement of labour leads to increased HIV transmission. The commercial sex industry also tends to thrive around mining communities and the dangerous and risky nature of the work that miners do is also conducive to risk-taking behaviour.

HIV/AIDS should be viewed as and other risk to business and must be proactively managed. In order to effectively assess and manage risk, it is essential to have adequate information regarding both the nature and the extent of the risk.³ Building awareness of the severity of the impact of HIV/AIDS is one of the most important elements in assisting business to respond effectively.

The hesitancy of many companies to invest in comprehensive HIV/AIDS workplace programmes may be due to a lack of reliable data to show the economic impact of the epidemic. Sustainable private sector responses to the epidemic will only be achieved if senior management is convinced of the business rationale for action. A vital element to achieving a comprehensive response is leadership at all levels (at government, private sector, business coalition and local levels).

This study strives to highlight to what extent HIV/AIDS has affected the mining sector in South Africa, as well as to assess the sector's awareness and response to the epidemic. While much of the focus and information in the past has been on the response of larger operations, this study hopes to supplement with evidence on the impact of HIV/AIDS on small and medium mining operations. The survey results are not only presented on a

³ SABCOHA, August 2003: "HIV/AIDS and Private Sector Employers in Southern Africa."

national basis, but are also disaggregated to show how employer responses differed per company size for the mining sector.

LITERATURE STUDY

A literature review of surveys and business' response to HIV/AIDS follows.

The World Economic Forum report, "Business and HIV/AIDS: Who Me?" A Global Review of the Business Response to HIV/AIDS.

This survey polled 7789 firms in 103 countries over their concerns and responses to the threat of HIV/AIDS, 62 firms in South Africa were surveyed.

The report showed that companies are concerned about the impact of HIV/AIDS on their business, but few have implemented measures to counter the threat. This report presents findings from the first global survey of business leaders' opinions on and responses to the threat of HIV/AIDS. The survey suggests three important conclusions regarding business and its current level and quality of response to the HIV/AIDS epidemic::

"Firms are not particularly active in combating HIV/AIDS, even when they expect the epidemic to cause serious problems for their business". Furthermore, "respondents do not believe they will be immune to the virus when it makes inroads on their local communities".

"Businesses appear to be making decisions based on a patchy assessment of the risks they face".

“Firms seem to favour a broad social response to the epidemic, even if only a small number of businesses currently see themselves as an integral part of that response”.

SABCOHA: DFID & Deloitte & Touche Human Capital Corporation, “Evaluation of workplace responses to HIV/AIDS in SA - a Rapid Situation Analysis”

In this study, 110 companies were surveyed telephonically, the largest number of companies were in the mining (13) and finance sectors (10). The results were split up according to the size of the company - 31 companies had less than 100 employees, 29 had 100 – 500 employees and 50 had 500 + employees. Roughly 20 questions were asked – mostly “select/tick” the correct answer.

The survey found programmes to manage AIDS in the workplace were poorly developed with no co-ordinated business response to the pandemic. The general perception was that HIV/AIDS would have a small to moderate impact on their business. According to Deloitte & Touche, this perception is formed off an uninformed knowledge base indicated by the low levels of risk assessment and lack of any studies of the behaviours or conditions amongst the workforce.

Centre for Health Policy, Wits School of public Health. “Aids and the workplace, with a specific focus on employee benefits: Issues and Responses”.

This study assesses the impact of HIV on workplaces and attempts to understand the current response. It has a broad focus including the status and trends of employee benefits.

It is a National Cross Sectional Study among 428 companies employing more than 50 people and interviews were conducted telephonically. Ten sectors were included from manufacturing, hospitality, mining, trade & transport.

The survey showed that policies were not always turned into strategic processes and that managers are responding on insufficient evidence.

“Company Practices – company actions on HIV/AIDS in the Durban Metropolitan area”. Gavin George, HEARD, University of Natal.

This research took a look at HIV prevention initiatives in ten large and small business enterprises in the Durban Metropole. The project comprised an assessment and identification of the practices of 5 large and 5 Small, Medium and Micro-enterprises (SMMEs) in the areas of HIV prevention, management of ill health, human resource development and industrial relations, employee benefits and survivor support.

AIDS Management Report and Markinor (March 2003), “How are SA companies addressing the HIV/AIDS challenge?”

This survey was conducted among 130 companies who were telephonically surveyed, 38% of the companies were JSE listed; 68% had the majority of their workforce in Gauteng. Its aim was to assess how small, medium and large enterprises were facing up to the HIV/AIDS challenge. The survey indicates fairly high levels of awareness of what an

HIV/AIDS policy requires and what the risk areas are. There are however some concerning levels of underestimating on prevalence and costs. The survey concludes with how the challenge is now to convert awareness to action and to get to grips with the numbers around risk and impacts.

It appears as if few large-scale surveys on the impact of HIV/AIDS on business and mining in particular in South Africa have been conducted.

SURVEY METHODOLOGY

This section of the report provides an overview of the methodology that was used to conduct the 2004 survey on the impact of HIV/AIDS on the mining sector in South Africa⁴.

During 2003, the BER designed a questionnaire to survey the economic impact of HIV/AIDS on selected business sectors in South Africa and to determine how business has responded to the epidemic. The questions were evaluated in a pilot study and the BER's first HIV/AIDS survey was conducted in October and November 2003 among the BER's survey panels in the manufacturing, retail, wholesale, motor trade and building and construction sectors. With 1006 companies having participated in the 2003 survey, it was the largest survey on the impact of HIV/AIDS on business in South Africa.

In 2004, the survey was expanded to include the mining and financial services sectors and two of the questions from the 2003 questionnaire

⁴ The same methodology was applied to the mining sector survey as was used for the other sectors covered in both the 2003 and 2004 surveys on the impact of HIV/AIDS on selected business sectors in South Africa.

were replaced with new questions. The 2004 survey was conducted between 15 July and 6 September 2004. A total of 1008 completed questionnaires were returned to the BER, signifying an overall response rate of 25.5%.

THE QUESTIONNAIRE

The questionnaire⁵ was designed to survey the economic impact of HIV/AIDS on selected business sectors in South Africa and to determine how they have responded to the epidemic.

The questionnaire (see appendix 1) was designed to serve a postal survey approach and, for the most part, the questions were *qualitative* (as opposed to *quantitative*) in nature. Furthermore, although some of the questions survey fact or intent, most survey the perceptions of the respondents. Since individuals and business people often base decisions on perceptions (i.e. behaviour is affected by perceptions), the fact that some of the responses may portray subjective views does not diminish the value of the findings.

In order to optimise participation in the study, few figures were called for and questions were kept simple – most of the questions required that the respondent simply “tick the appropriate box”. Furthermore, individual responses are treated as strictly confidential.

In order to ensure the integrity of the results, respondents were urged to complete the questionnaire even if they thought that HIV/AIDS has had

⁵ The mining sector survey questionnaire only differed from the general questionnaire in that it contained fewer questions, for details see “The impact of HIV/AIDS on Selected Business Sectors in South Africa, 2004”.

no impact on their business. Respondents were also given the choice to answer that they “Don’t Know” whether HIV/AIDS has affected the factors listed in the questionnaire. In a letter accompanying the questionnaire, it was requested that the CEO, owner or manager of the organisation, or the executive that knows best about the impact of HIV/AIDS on the business, complete the questionnaire. Given the position of these executives in their company and the nature of the questions, respondents would have been able to complete the questionnaire within a few minutes without consulting detailed financial or other records.

The HIV/AIDS questionnaire for the mining sector was sent by mail to the 977 operating mines, quarries and mineral processing plants listed on the Department of Minerals and Energy’s directory. These mining operations range from small private operations to large multinational companies. A number of questionnaires were returned without having been completed, as some addresses were incorrect, while other mining operations had closed down. (The directory was provided by the Department of Minerals and Energy and contains, among other, the name, district, contact details and commodities mined by each mining operation.) In addition, the Chamber of Mines offered to contact the mine representatives on their Labour Policy Committee Group in order to encourage participation in the survey. There are 21 mines represented in this committee, including most of South Africa’s largest mines.

The questionnaires were mailed to respondents between 14 and 23 July 2004. By the 6th of September, 1008 completed questionnaires (106 from the mining sector) had been returned to the BER. The overall response rate for the survey was 25.5%. The response rate for the BER’s regular panel was 30.3%, but the response rate in the mining sector was significantly lower.

Since it is unclear precisely how many of the mines on the DME's database are in fact dormant, have closed down or have inaccurate contact details (i.e. questionnaires did not reach their intended destinations), it is impossible to calculate an exact response rate for the mining sector. If the sample is not adjusted to reflect these shortcomings, the mining sector response rate is only $\pm 11\%$ (106 mines⁶ participated in the survey), but this is probably an underestimate of the true response rate. On a more positive note, employment figures reported by participants suggest that a relatively higher percentage of South Africa's larger mines participated in the survey. The total number of full-time workers employed by the mines that participated in the survey amounted to 174 847, which is estimated to be about 40% of the total number of employees in the mining sector.⁷

SURVEY RESULTS

This section of the report presents the results of the 2004 survey on the impact of HIV/AIDS on the mining sector in South Africa. The overall survey was conducted by the Bureau for Economic Research (BER) during July and August 2004 among companies in the mining, manufacturing, retail, wholesale, motor trade, building and construction and financial services sectors. The purpose of this report is to highlight and analyse the findings of the survey within the mining sector. The survey results are divided into three sections namely: the labour force, commodity and provincial details of the survey participants, the mining sector's response

⁶ The survey respondents mine a whole range of different minerals, including diamonds, gold, silver, platinum group metals, coal, industrial minerals (e.g. sand, clay and limestone), non-ferrous metals and minerals (e.g. aluminium and copper), ferrous minerals (e.g. iron ore, chromium and manganese) and other minerals.

⁷ According to estimates from the Survey of Employment and Earnings by Statistics South Africa, 437 000 workers were employed in the mining and quarrying sector in the first quarter of 2004.

to HIV/AIDS and the impact of HIV/AIDS on the mining sector. The results were not weighted and therefore reflect the actual percentages of respondents that answered a question in a certain way. For each question, employer responses are disaggregated to show the results for the mining sector companies surveyed.

Company size was measured according to employee numbers:

Less than 100 employees	→	Small company
100 to 500 employees	→	Medium size company
More than 500 employees	→	Large company

LABOUR FORCE, COMMODITY AND PROVINCIAL DETAILS OF MINING SECTOR PARTICIPANTS

The first section of the questionnaire requested the contact details of the executive completing the questionnaire, labour force details and the type of principal commodity mined of the mining operation as well as the province in which the mining operation surveyed is located. Respondents were asked to state employee numbers; the percentage of male vs. female employees; the percentage of employees in each skills category and the percentage of employees in each of three specified age categories⁸. Table 1 presents the labour force details for the mines surveyed.

The survey participants consisted of 106 mines. The mining sector tends to be dominated with younger males in the semi-unskilled category. The survey results confirm that the mining sector employs a very large

⁸ Please note that respondents were not provided with definitions for each skills category. The survey results reported here therefore represent the perceptions of the executive that completed the questionnaire with regard to the skills level of their employees.

percentage of males (80%) and a large percentage of semi-/unskilled workers (53%). Respondents indicated that 45% of their employees were between the ages of 30 and 45 years. When looking at these figures, one should keep in mind semi-/unskilled workers are relatively more vulnerable when it comes to HIV infection and that AIDS mortality is highest among employees between the ages of 30 and 45 years.

Table 1

Mining Sector Labour Force details	
Number of respondents	106
Total number of full time employees	174,847
Average % of employees:	
Male	80%
Female	20%
Average % of employees:	
Semi-/Unskilled	53%
Skilled	26%
Highly Skilled	21%
Average % of employees:	
Younger than 30 years	18%
30 to 45 years old	45%
Older than 45	37%

The table below presents the labour force details per company size. Of the 106 participants in the mining sector, 32 were classified as large, 30 as medium size and 44 as small.

Table 2

Mining Sector Labour Force Details – Per size			
	Large: > 500 employees	Medium: 100 – 500 employees	Small: < 100 employees
Number of respondents	32	30	44
Total number of full time employees	166,480	7,043	1,324
Average % of employees:			
Male	92%	62%	83%
Female	8%	38%	17%
Average % of employees:			
Semi-/Unskilled	64%	48%	48%
Skilled	27%	19%	31%
Highly Skilled	9%	33%	21%

Average % of employees:			
Younger than 30 years	20%	18%	16%
30 to 45 years old	45%	35%	51%
Older than 45	34%	46%	32%

Table 3 below presents a breakdown per commodity mined of the mining sector participants.

Table 3

Principal Commodity mined	
Commodity Type	%
Diamonds	7%
Gold/Silver	10%
Platinum Group metals	6%
Coal	9%
Nonferrous Metals & Minerals	3%
Ferrous Metals	4%
Industrial Minerals	17%
Other	44%

Table 4

Participants Provincial Breakdown	
Province	% Participants
Mpumalanga	21%
Gauteng	18%

Eastern Cape	11%
Western Cape	10%
KwaZulu-Natal	9%
Free State	8%
Northern Cape	8%
North West	8%
Limpopo	7%

The table above gives a provincial breakdown of the participants to the BER survey.

The latest antenatal clinic survey (Department of Health 2003) showed that 27.9% of women attending public sector antenatal clinics were infected with HIV by late 2003 (see figure 1). The survey results suggest that the epidemic is most advanced in KwaZulu-Natal where HIV prevalence of women visiting antenatal clinics is estimated at 37.5% (see table 5). Other provinces with very high infection rates are Mpumalanga, the Free State, the North West and Gauteng where almost 30% of women attending public sector antenatal clinics tested positive. Most of the provinces mentioned above are heavily involved in the mining sector.

Figure 1

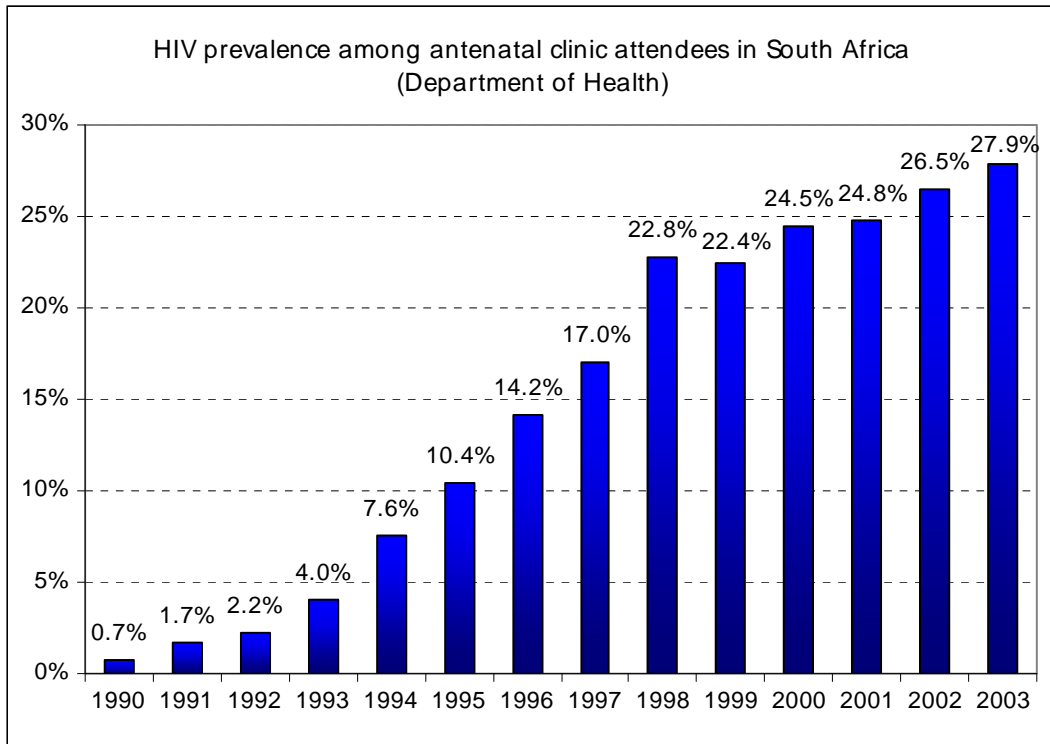


Table 5

HIV prevalence among antenatal clinic attendees by province (Department of Health)							
	1997	1998	1999	2000	2001	2002	2003
KwaZulu-Natal	26.9	32.5	32.5	36.2	33.5	36.5	37.5
Mpumalanga	22.6	30.0	27.3	29.7	29.2	28.6	32.6
Free State	19.6	22.8	27.9	27.9	30.1	28.8	30.1
North West	18.1	21.3	23.0	22.9	25.2	26.2	29.9
Gauteng	17.1	22.5	23.9	29.4	29.8	31.6	29.6
Eastern Cape	12.6	15.9	18.0	20.2	21.7	23.6	27.1

Limpopo	8.2	11.5	11.4	13.2	14.5	15.6	17.5
Northern Cape	8.6	9.9	10.1	11.2	15.9	15.1	16.7
Western Cape	6.3	5.2	7.1	8.7	8.6	12.4	13.1
RSA	17.0	22.8	22.4	24.5	24.8	26.5	27.9

THE MINING SECTOR'S RESPONSE TO HIV/AIDS

Question 1

Question one requested the contact details of the executive completing the questionnaire. Only a third of the mining sector participants classified themselves as CEOs, MDs or owners of mines, while mine managers and human resource managers each accounted for $\pm 20\%$ of the mining sector respondents. This could be due to the fact that most of the larger mines have comprehensive workplace programmes in place and managers lower down the organisational structure are closer and more involved with the implications and ramifications of the disease.

Question 4

- a) Does you're your company/group have an HIV/AIDS policy?
- b) If yes, has your company's HIV/AIDS policy been communicated to employees?
- c) When did your company/group implement your HIV/AIDS policy?

Responses to this question showed that within the mining sector, policy development and communication is relatively well undertaken. The results show that 77% of the mines surveyed have an HIV/AIDS policy in place and it would appear that most of these policies were implemented between 2000 and 2003. The vast majority (90%) of the respondents who have an HIV/AIDS policy in place have also communicated this policy to

their employees. The successful communication of a company's HIV/AIDS policy is the major driver of workplace programmes. A company should have a clear and directed HIV/AIDS strategy, which should either stand alone or form part of the strategic plan for the business.

Table 6

Percentage of companies that have an HIV/AIDS policy and year of implementation – Per Company Size			
	Large: > 500 employees	Medium: 100 – 500 employees	Small: < 100 employees
Percentage of companies that have an HIV/AIDS policy	100%	87%	55%
Year of implementation of HIV/AIDS policy			
Before 1995	3%	0%	9%
Between 1995 and 1999	16%	13%	30%
Between 2000 and 2002	50%	46%	30%
2003	28%	38%	30%
2004	3%	4%	1%

Question 5

Has your company/group implemented the following HIV/AIDS programmes?

1. A voluntary counselling and testing programme
2. An HIV/AIDS workplace awareness programme
3. An HIV/AIDS care, support and treatment programme
4. The provision of anti-retroviral therapy at the workplace

The figure below depicts the percentage of companies that have implemented HIV/AIDS programmes and the type of programme. The survey shows (in comparison with the other sectors surveyed) that the mines lead the way and have responded the best with regard to the implementation of HIV/AIDS programmes (especially as far as workplace awareness programmes and voluntary counselling and testing are concerned). Almost 80% of mines surveyed have implemented HIV/AIDS workplace programmes, a half offer voluntary counselling and testing and some 21% provide anti-retroviral therapy at the workplace. Companies need to take this further in order to determine the effectiveness of these programmes by way of regular KAP surveys. Debswana refer to KAP surveys⁹ as “a structured survey conducted among all levels of employees to provide an indication of:

Knowledge: The level of knowledge about HIV/AIDS including the condition,

methods of transmission, treatment and prevention.

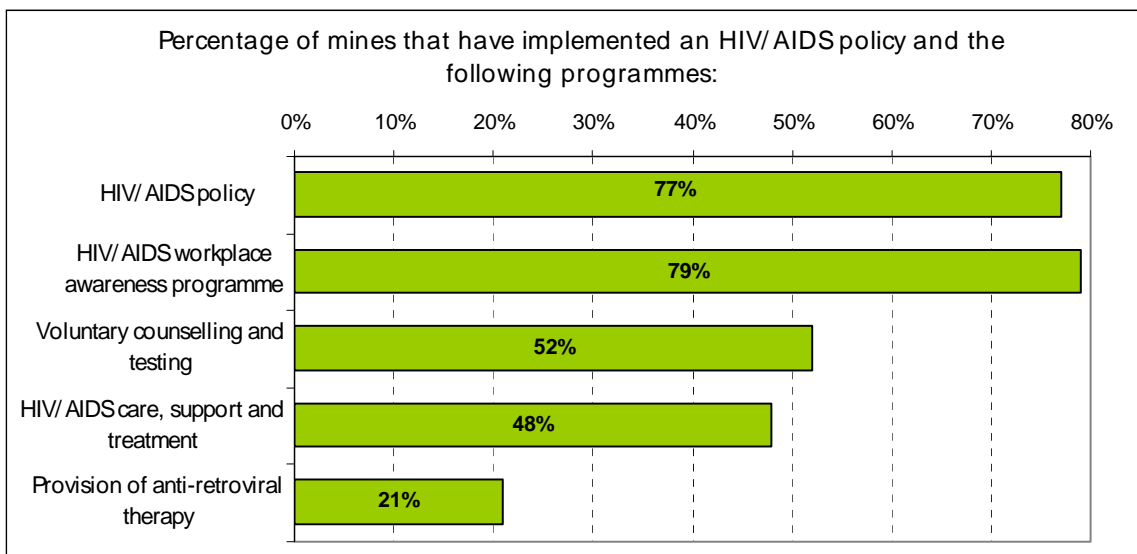
Attitudes: Individuals attitudes about the disease, level of personal risk, infected

colleagues, family and friends.

⁹ “The private sector responds to the epidemic: Debswana – a global benchmark. UNAIDS case study, September 2002,

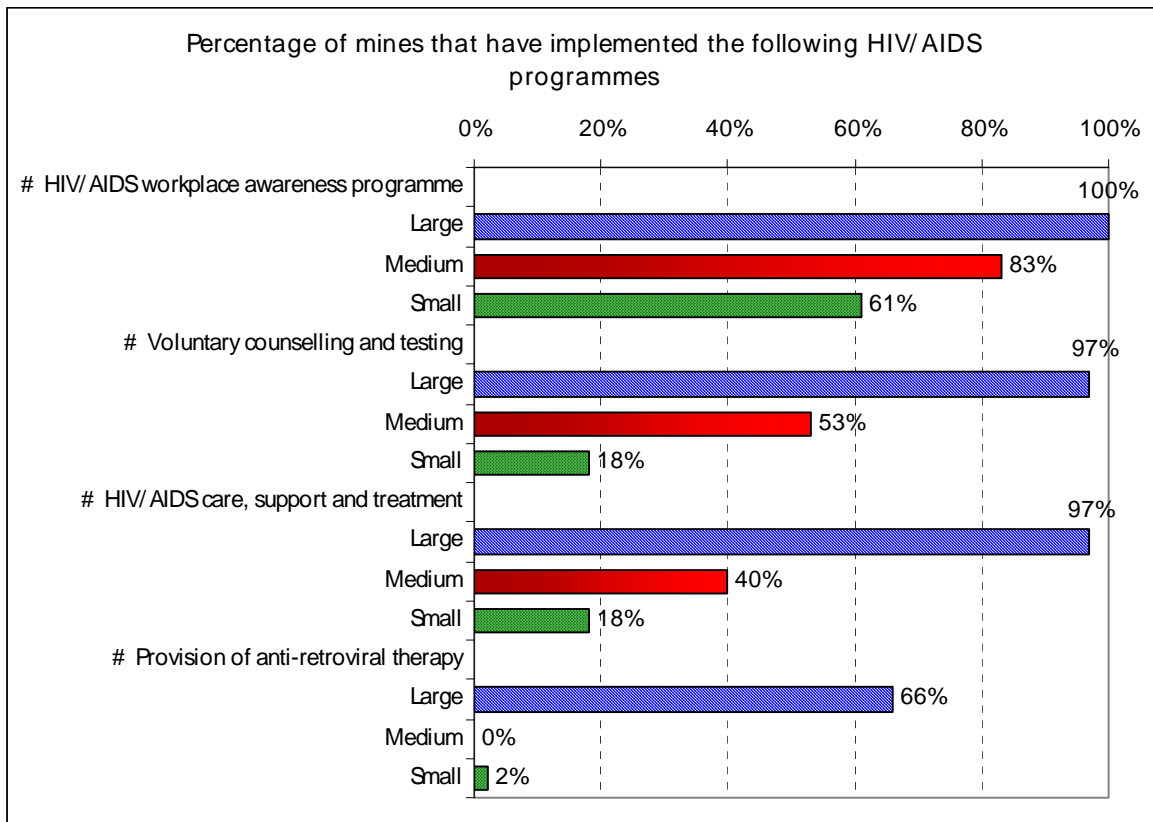
Practices: The assessment of risk-taking behaviour with regard to HIV transmission”.

Figure2



Upon further analysis per mine size, the survey results show that smaller mining operations are still lacking in their response to HIV/AIDS prevention and treatment programmes.

Figure 3



Question 6

Has your company/group conducted research (e.g. an HIV/AIDS risk assessment) to assess the impact of HIV/AIDS on your:

- i) labour force
- ii) production costs

It is essential to plan for the impact of HIV/AIDS on both labour and production costs. In line with the above question, research into the effect of HIV/AIDS on the labour force has been proactively undertaken by the mining sector - accurate information is what drives a focused programme. Of all the mines surveyed, 43% reported having conducted research to assess the impact of HIV/AIDS on their labour force while 35% reported having done so with regard to their production costs.

THE IMPACT OF HIV/AIDS ON THE MINING SECTOR

Question 7

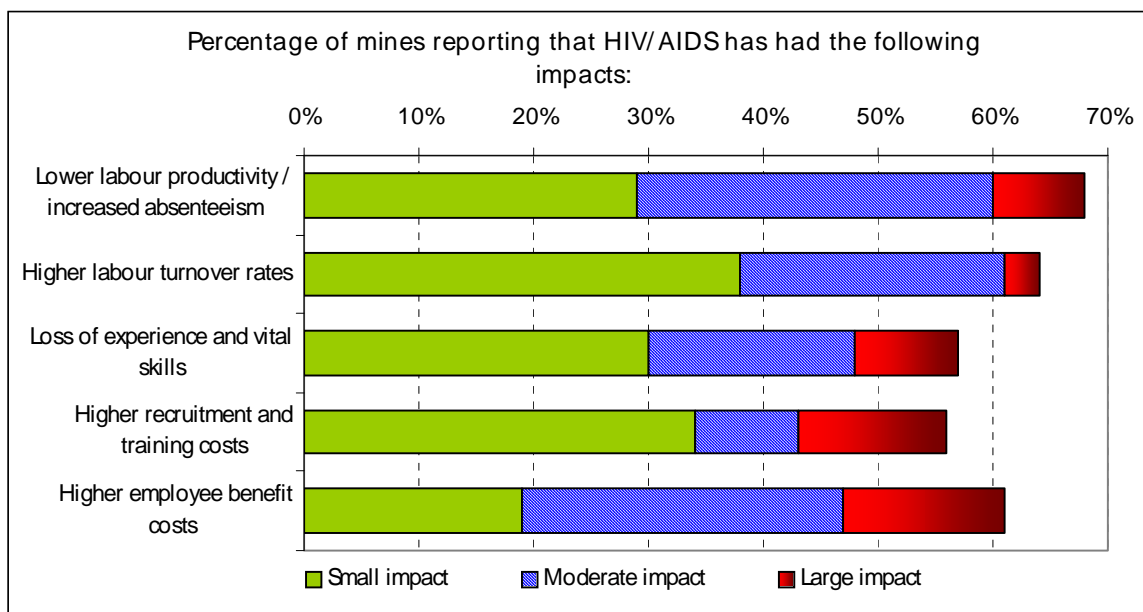
Has HIV/AIDS affected the production side of your company? If it has, please rate the impact of HIV/AIDS on the following factors:

1. Lower labour productivity and/or increased worker absenteeism
2. Higher labour turnover rates
3. Loss of experience and vital skills
4. Higher recruitment and training costs
5. Higher employee benefit costs (e.g. medical aid; pension, life and disability insurance; funeral benefits)

The survey results suggest that lower labour productivity and increased absenteeism, followed by higher employee benefit costs as a result of the epidemic, are the factors that are having the largest impact on the production side of mines that have been affected by HIV/AIDS. Figure 4 shows that the mining sector is experiencing serious impacts on the production side. Between 60% and 70% of respondents in the mining sector indicated that HIV/AIDS has already reduced labour productivity or increased absenteeism among employees and has led to higher employee benefit costs. Productivity is affected by the morbidity (illness) and mortality (death) of infected workers. Workers take time off to receive medical treatment, to attend funerals or care for sick family members. Staff morale caused by the loss of colleagues and increased workloads also affects productivity. In the mining sector, the majority of the respondents that have experienced these impacts rated the effect of HIV/AIDS on these aspects as "moderate" or "severe", as opposed to only a "small" impact. The majority of the mines that were surveyed indicated that the epidemic has also led to higher labour turnover rates, lost experience and skills and higher recruitment and training costs.

Interestingly, some of the mines surveyed indicated that they are to some extent still “sheltered” from the full impact of the epidemic, as they are in the process of retrenching workers and suspect that some workers who are infected with the virus are volunteering to take retrenchment or early retirement packages. The fact that they are trying to reduce the size of their labour force implies that they are less affected by AIDS deaths, as they will not have to recruit and train new workers to replace HIV/AIDS sick workers. Furthermore, as HIV/AIDS infected workers accept retrenchment packages, they are reducing their exposure to potentially less productive workers.

Figure 4



Question 8

- a) Will your company or group be able to pass some of the HIV/AIDS related costs on to customers by increasing your selling prices?
- b) If yes, what percentage of these costs do you think could be recovered by increasing your selling prices?

Overall, only 9% of all the mines surveyed expected to be able to pass some of the HIV/AIDS related costs on to their customers by increasing their selling prices. Of the 9% of mines that felt confident that they would be able to raise their prices, the majority was unsure as to exactly how much they would be able to pass on. If companies are unable to recover costs by increasing their selling prices, their profit margins will come under pressure.

Question 9

- a) Have any of your suppliers indicated that their company has been adversely affected by HIV/AIDS?

More than a quarter of the mines surveyed reported that the impact of HIV/AIDS is having an adverse impact on their suppliers.

- b) Has HIV/AIDS disrupted the supply of products and services to your company/group (i.e. supply timelines and volumes)?

Sixteen percent of the mining sector respondents were of the opinion that HIV/AIDS has disrupted the supply of goods and services to their companies. Interestingly, while suppliers experienced a higher impact, this impact is being effectively dealt with internally. It would seem that delivery timeframes are not being drastically affected. For the most part, this impact was reported as moderate.

Question 10

What would you say the net effect of HIV/AIDS will be on your company's demand for labour (i.e. your decision to employ new workers or to terminate current labour contracts)?

A high percentage of respondents in the mining sector (55%) reported that HIV/AIDS increases their demand for labour. The responses differed between companies of different sizes. Whereas 43% of small companies indicated that HIV/AIDS increases their demand for labour, the corresponding figures for medium and large companies are 48% and 81% respectively.

Table 7

What would you say the net effect of HIV/AIDS will be on your company's demand for labour (your decision to employ new workers or terminate current labour contracts)?				
	Large: > than 500 employees	Medium: 100 – 500 employees	Small: < than 100 employees	Total all sizes
Increases labour demand	81%	48%	43%	55%
No effect	13%	37%	45%	33%
Reduces labour demand	6%	15%	12%	11%

Question 11

Does your company/group foresee appointing extra employees (also known as shadowing) to compensate for the impact of HIV/AIDS on labour productivity, absenteeism and mortality?

The survey showed that 30% of the mines surveyed indicated that they foresee appointing extra employees to compensate for the impact of HIV/AIDS on labour productivity, absenteeism and mortality. Mines have generally noted greater productivity losses and higher labour turnover rates due to HIV/AIDS than the respondents in the other sectors, which may be one reason why more mines foresee implementing work shadowing to compensate for the impact of HIV/AIDS. It must be noted that additional training also carries additional costs.

Question 12

Is your company/group investing machinery and/or equipment to reduce its dependence on labour/employees because of HIV/AIDS?

Twenty three per cent of the mines surveyed indicated that they are investing in machinery or equipment to reduce their dependence on labour. This may again be ascribed to the fact that a significantly larger percentage of mines have experienced lower labour productivity, increased absenteeism or higher labour turnover rates due to HIV/AIDS compared to companies in the other sectors. Furthermore, the mining sector is probably the most capital intensive of all the sectors surveyed.

Question 13

- a) Has the HIV/AIDS epidemic impacted adversely on your company/group's fixed investment decisions?
- b) If yes, please indicate the seriousness of the adverse impact on your company/group's fixed investment decisions?

It is encouraging that the mining sector (along with the other sectors surveyed) believes that HIV/AIDS has had little effect in influencing their fixed investment decisions. The vast majority of mines surveyed reported that HIV/AIDS has not adversely affected their decision to invest in South Africa. Only 10% of mining respondents indicated that HIV/AIDS has had an adverse impact on their fixed investment decision. Of those who feel less likely to invest due to HIV/AIDS, the majority admitted that the impact on their investment decision had been small, or that they were uncertain how negative the impact had been.

Question 14

- a) Which of the following percentages represent your estimation of the impact of HIV/AIDS on your company/group's profits?
- | | |
|---|-------------------------------|
| i) More than 5% lower | v) Between 0% and 2.5% higher |
| ii) Between 2.5% and 5% lower
higher | vi) Between 2.5% and 5% |
| iii) Between 0% and 2.5% lower | vii) More than 5% higher |
| iv) No impact | |
- b) What do you expect the impact of HIV/AIDS on profits to be in 5 year's time?

The sector experiencing the greatest impact on profits (compared to other sectors surveyed by the BER) is the mining sector. HIV/AIDS will put profitability under pressure largely due to increased labour costs. This is confirmed in the Harmony Annual Report where they estimate that 33.9% of its labour force is currently infected with HIV and they state that HIV/AIDS related costs could cost their company between US\$2 to US\$5

per ounce of gold produced.¹⁰ According to Harmony, their HIV/AIDS-related costs for the 2003/2004 financial year amounted to R7.6 million. According to the AngloGold Report, they estimate 30% of their 40 000 employees in South Africa to be infected with HIV. Furthermore they estimate the financial impact of HIV/AIDS in 2003 to have cost the company around R71.9 million.¹¹

When asked how HIV/AIDS is affecting company profits, 62% of the mines surveyed indicated that the epidemic has already had an adverse impact on their profits, while 75% expect a negative impact in five year's time. Whereas roughly 1 in 10 of the mines surveyed reported that profits were already more than 5% lower than what would have been possible in the absence of HIV/AIDS, 1 in 4 expected profits to be more than 5% lower in 5 year's time.

Question 15

- a) All in all, has HIV/AIDS had a significant adverse impact on your business (e.g. on production, sales or profits)?
- b) Do you expect HIV/AIDS to have a significant adverse impact on your business in 5 year's time?

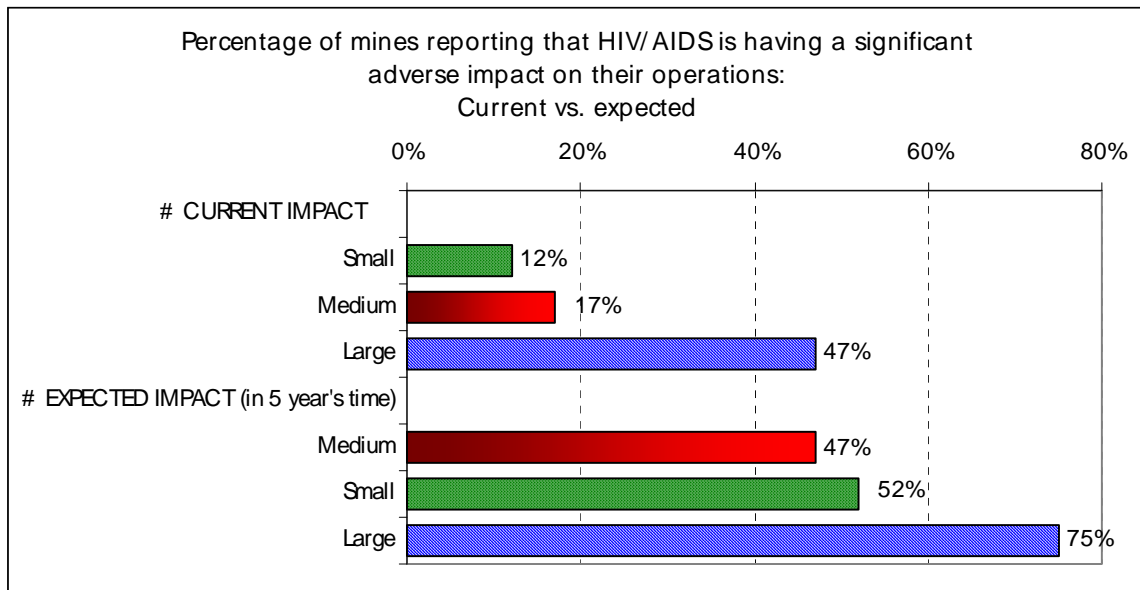
Almost a quarter (24%) of all the mines surveyed indicated that HIV/AIDS has already had a *significant* adverse impact on their business. However, considerably more envisage a significant negative impact on their business 5 year's hence. The figure below portrays the percentage of companies reporting that HIV/AIDS has had an adverse impact on profits

¹⁰ Harmony Annual Report 2004: Sustainability Report.

¹¹ AngloGold Report to Society 2003: HIV/AIDS

per company size. More than 70% of the larger mines and roughly 50% of the medium and smaller sized mines expect that HIV/AIDS will have a negative impact on profits in five year's time.

Figure 5



Question 16

- a) Does your company/group produce an annual report, financial statements or other statutory documents?
- b) If yes, does your company/group refer to HIV/AIDS and its possible effects in any of these documents?

The mining sector certainly leads when it comes to reporting on the impact of HIV/AIDS. Most of the mines surveyed (84%) indicated that they produce some form of statutory document, however, only 32% who indicated that they do, report on its possible effects in any of these documents.

LIMITATIONS OF THE RESEARCH

After the discussion of the survey results, it is necessary to consider certain limitations¹² of this type of research. While every endeavour was made to ensure maximum participation in the mining sector, it must be noted that it takes time to build up a panel of survey participants. This is reflected in the response rates for the BER regular participants (manufacturing 30.3%, building & construction 29.0%, retail 35.7%, wholesale 26.5%, motor 25.9% and financial services 32.5%), whereas the mining sector's (the first time that this sector has been surveyed by the BER) response rate was significantly lower at 10.8%. It is expected that the response rate could increase with each survey.

Since only 25.5% (all sectors surveyed) of the companies that were approached actually participated in the survey, one has to consider that there may be a selection bias in the sample. A selection bias would have occurred if the companies that participated in the survey were significantly different from the companies that declined to participate. For example, if the companies that participated are more concerned about the impact of HIV/AIDS, are more likely to have conducted research on the impact of HIV/AIDS or if they are more likely to have experienced adverse impacts as a result of the epidemic, they would probably have reported different impacts compared to the ones that did not take part in the survey. If this were the case, the survey results would not be a true reflection of the impact of HIV/AIDS on the sectors surveyed.

In an attempt to prevent a selection bias and ensure the integrity of the results, respondents were urged to complete the questionnaire (in a letter accompanying the questionnaire) even if they thought that HIV/AIDS has

¹² The same limitations apply to the mining sector as to the other sectors in the survey on "The Impact of HIV/AIDS on Selected Business Sectors in South Africa, 2004"

had no impact on their business. As mentioned above, respondents were also given the choice to answer that they "Don't Know" whether HIV/AIDS has affected the factors listed in the questionnaire. The reason most often cited (in follow-up telephonic interviews) for not participating was simply a lack of time to complete the questionnaire. Furthermore, the 2004 response rates were only slightly lower from those achieved in the regular BER business surveys (roughly 35%). This can in all likelihood be ascribed to the fact that the HIV/AIDS questionnaire is about 3 times longer than the regular business survey questionnaires. Moreover, since this is the second year that this survey has been conducted, it was possible to compare the 2004 responses of companies that participated in both the 2003 and 2004 surveys with the responses of companies that only participated in the 2004 survey (i.e. members of the panel that refused to participate in 2003). The survey results derived from the "first-time" participants did not differ significantly from those derived from "second-time" participants. These factors all support the assumption that a selection bias did not occur.

A third limitation of the survey that needs some consideration is the fact that many of the questions in the survey test the *perceptions* of the executives completing the questionnaire, rather than "hard data". Since very few companies have conducted research to assess the impact of HIV/AIDS on their business, it is unlikely that many companies would be able to quantify the impact of HIV/AIDS on different aspects of their business. Since business decisions are often influenced by the perceptions of executives, the subjectivity of their views does not invalidate the findings of the survey.

CONCLUSION

The survey shows that the impact of HIV/AIDS on the mining sector has been severe and that this sector, in comparison with other sectors surveyed by the BER, has responded the most comprehensively. The epidemic is experienced differently according to company size and location and of concern is the smaller and medium sized mines lethargic response (or perhaps in the case of the smaller miner, their inability to respond) to the epidemic. This could be due to the fact that they lack the capacity and or sufficient resources to do so.

The survey results reveal that many mines are already facing the consequences of the epidemic. Almost half of the large mines surveyed indicated that HIV/AIDS has already had a significant adverse impact on their operations while 75% of these mines and roughly 50% of both the small and medium sized mines envisage a significant negative impact in five year's time. When asked how HIV/AIDS is affecting profits, 62% of the mines surveyed reported that the epidemic has already had an adverse impact on the bottom line. It appears as though the impact has been more noticeable on the production side, with between 60 - 70% % of the mines surveyed reporting that HIV/AIDS has reduced productivity or increased absenteeism, raised the cost of employee benefits or increased labour turnover rates. The majority of the participating mines indicated that the epidemic has also led to higher labour turnover rates, lost experience and skills and higher recruitment and training costs. Responses also differed between mines of different sizes, with a higher percentage of large and medium sized mines noting HIV/AIDS related impacts compared to small mines (with less than 100 employees).

The mining sector's response to the epidemic is the best amongst all the sectors surveyed. An impressive 77% in the mining sector have

implemented an HIV/AIDS policy. The survey also shows that the mines lead the way and have responded the best with regard to the implementation of HIV/AIDS programmes – no less than 80% of mines surveyed have implemented HIV/AIDS workplace programmes. The survey results show that smaller mining operations are still lacking in their response to HIV/AIDS prevention and treatment programmes.

While the mining sector, in comparison to other sectors, is responding the most comprehensively, it must be borne in mind that the impact of HIV/AIDS is a gradual, long term and delayed process. Therefore, the impact will no doubt worsen and the response to the epidemic needs to be adapted, re-energized and sustained as conditions change. Leadership at all levels remains crucial within the private and public sectors in driving a strategic response to this epidemic. There is no room for complacency and it is hoped that the larger mines will take the lead in assisting the smaller mines in responding to the challenges that HIV/AIDS pose.

BIBLIOGRAPHY

DA SILVA, R., 2003. How are SA companies addressing the HIV/AIDS challenge? AIDS management report, Volume 1 Issue 3:11 –13.

ANGLOGOLD, 2003. Report to Society 2003: HIV/AIDS. [Online] Available at:
<http://www.anglogold.co.za>

DEPARTMENT OF HEALTH, 2003. National HIV And Syphilis Antenatal Sero-Prevalence Survey in South Africa 2003. [Online] Available at:
<http://www.doh.gov.za>

DEPARTMENT OF HEALTH, 2003. Operational Plan for Comprehensive HIV and AIDS Care, Management and Treatment for South Africa. [Online] Available at:
<http://www.gov.za/reports/2003/aidsplan>

DEPARTMENT OF MINERALS AND ENERGY, December 2003. South Africa's Mineral Industry 2003/2003. [Online] Available at:
http://www.dme.gov.za/home.asp?menu=energy/liquid_fuels.htm

GEORGE, G (2002). Company practices – company actions on HIV/AIDS in the Durban Metropolitan area. HEARD, University of Natal.

HARMONY, 2004. Annual Report 2004: Sustainability Report. [Online] Available at:
<http://www.harmony.co.za>

KERSHOFF, G.J., April 2002. An evaluation of the BER's trade and building survey panels. Journal for Studies in Economics and Econometrics (SEE), Vol. 26(1): 33 – 49.

OECD, 2003. Business Tendency Surveys – A Handbook. OECD Publications, Paris, France.

OLD MUTUAL, Old Mutual Healthcare Survey 2003. [Online] Available at:
<http://healthcare.oldmutual.co.za/>

SABCOHA, DFID & DELOITTE & TOUCHE HUMAN CAPITAL CORPORATION, May 2002. Evaluation of workplace responses to HIV/AIDS in South Africa – a rapid situation analysis.

SOUTH AFRICAN RESERVE BANK, 2004. Quarterly Bulletin, September 2004 p. S-113.

STEVENS, M., (2001). Aids and the workplace, with a specific focus on employee benefits: Issues and responses. Center for Health Policy, Wits School of Public Health.

STATISTICS SOUTH AFRICA, June 2004. Survey of Employment and Earnings. Statistical Release P0275. [Online] Available at: <http://www.statssa.gov.za>

UNAIDS, June 2004. 2004 Report on the Global AIDS epidemic. [Online] Available at: <http://www.unaids.org>

UNAIDS, 2003. HIV/AIDS: It's your business. [Online] Available at: <http://www.unaids.org>

UNAIDS Case Study: The private sector responds to the epidemic: Debswana – a global benchmark. [Online] Available at: <http://www.unaids.org>

WORLD ECONOMIC FORUM, (2004). Global Business Survey - Business and HIV/AIDS: Who me? [Online] Available at: <http://www.weforum.org/globalhealth>

APPENDIX 1: SURVEY QUESTIONNAIRE – MINING SECTOR

**THE IMPACT OF HIV/AIDS ON BUSINESS IN SA – A SURVEY CONDUCTED BY THE BER,
FUNDED BY THE SOUTH AFRICAN BUSINESS COALITION ON HIV & AIDS (SABCOHA)**

Please fill in the missing information or tick the appropriate box. All information will be treated as confidential. Individual replies will not be published or quoted.

1.) Contact details

1.a) Surname _____ Initials _____

1.b) Title Mr Mrs Ms Dr

1.c) Position of executive completing questionnaire:

CEO / MD / Owner	Financial Manager / Accountant	Mine Manager	Human Resources Manager	Other

1.d) Telephone number _____ Area code No.

2.a) What is the principal commodity mined by your mining operation?

Diamonds	Gold / Silver	Platinum Group Metals	Coal	Nonferrous Metals & Minerals	Ferrous Metals	Industrial Minerals	Other

2.b) In which province is your mining operation situated?

WCape	ECape	NCape	FState	KZN	Gauteng	NWest	Mlanga	NProv

3.) Labour force details

3.a) Number of full time employees

.....

3.b) Percentage of employees

Male	%	+	Female	%	=	100%
------------	---	---	--------------	---	---	------

3.c) Percentage of employees

Semi- /unskilled	Skilled	Highly skilled			
.....%%%	=	100%	

3.d) Percentage of employees

Younger than 30	30 to 45 Years	Older than 45			
.....%%%	=	100%	

4.a) Does your company/group have an HIV/AIDS policy?

Yes	No	Don't Know

4.b) If yes, has your company's HIV/AIDS policy been communicated to employees?

Yes	No	Don't Know

4.c) When did your company/group implement your HIV/AIDS policy?

Before 1995	Between 1995 and 1999	Between 2000 and 2002	2003	2004

5.) Has your company/group implemented the following HIV/AIDS programmes?

- i) A voluntary counselling and testing programme
- ii) An HIV/AIDS workplace awareness programme

Yes	No	Don't Know

- iii) An HIV/AIDS care, support and treatment programme
- iv) Provision of anti-retroviral therapy at the workplace

6.) Has your company/group conducted research (e.g. an HIV/AIDS risk assessment) to assess the impact of HIV/AIDS on your:

- i) labour force
- ii) production costs

Yes	No	Don't Know

7.) Has HIV/AIDS affected the production side of your company? Please rate the impact of HIV/AIDS on the following factors by ticking the appropriate boxes:

HIV/AIDS has led to:

- i) Lower labour productivity and/or increased worker absenteeism
- ii) Higher labour turnover rates
- iii) Loss of experience and vital skills
- iv) Higher recruitment and training costs
- v) Higher employee benefit costs (e.g. medical aid; pension, life and disability insurance; funeral benefits)

No impact	Small impact	Moderate impact	Large impact	Don't know

8.a) Will your company/group be able to pass some of the HIV/AIDS related costs mentioned above on to customers by increasing your selling prices?

Yes	No	Don't know

8.b) If yes, what percentage of these costs do you think could be recovered by increasing your selling prices?

0% to 25%	25% - 50%	50% - 75%	75% to 100%	Don't know

9.a) Have any of your suppliers indicated that their company has been adversely affected by HIV/AIDS?

Yes, small impact	Yes, moderate impact	Yes, large impact	No	Don't know

9.b) Has HIV/AIDS disrupted the supply of products and services to your company/group (i.e. supply timelines and volumes)

Yes, small impact	Yes, moderate impact	Yes, large impact	No	Don't know

10.) What would you say the net effect of HIV/AIDS will be on your company's demand for labour (i.e. your decision to employ new workers or to terminate current labour contracts)?

Severely reduces labour demand	Moderately reduces labour demand	No Effect	Moderately increases labour demand	Sharply increases labour demand

11.) Does your company/group foresee appointing extra employees (also known as shadowing) to compensate for the impact of HIV/AIDS on labour productivity, absenteeism and mortality?

Yes	No

12.) Is your company/group investing in machinery and/or equipment to reduce its dependence on labour/employees because of HIV/AIDS?

Yes	No

13.a) Has the HIV/AIDS epidemic impacted adversely on your company/group's fixed investment decisions?

Yes	No	Don't know

13.b) If yes, please indicate the seriousness of the adverse impact on your company/group's fixed investment decisions?

Small impact	Moderate impact	Large impact	Don't know

14.a) Which of the following percentages represent your estimation of the impact of HIV/AIDS on your company/group's profits?

More than 5% lower	Between 2.5% and 5% lower	Between 0% and 2.5% lower	No impact	Between 0% and 2.5% higher	Between 2.5% and 5% higher	More than 5% higher

14.b) What do you expect the impact of HIV/AIDS on profits to be in 5 year's time?

More than 5% lower	Between 2.5% and 5% lower	Between 0% and 2.5% lower	No impact	Between 0% and 2.5% higher	Between 2.5% and 5% higher	More than 5% higher

15.a) All in all, has HIV/AIDS had a significant adverse impact on your business (e.g. on production, sales or profits)?

Yes	No

15.b) Do you expect HIV/AIDS to have a significant adverse impact on your business in 5 year's time?

Yes	No

16.a) Does your company/group produce an annual report, financial statements or other statutory documents?

Yes	No	Don't Know

16.b) If yes, does your company/group refer to HIV/AIDS and its possible effects in any of these documents?

Yes	No	Don't Know