Overview

According to UNAIDS about 5 million people worldwide became infected with HIV in 2001; the present scale of the AIDS crisis outstrips even the worst case scenarios for the epidemic of a decade ago. In 2001 it was estimated that there were 40 million people worldwide living with AIDS; by then 14 million children had been orphaned by the disease (UNAIDS 2002).

The acknowledged epicenter of the global HIV/AIDS pandemic is sub-Saharan Africa. According to the WHO, 24.5 million adults and children were living with HIV/AIDS in sub-Saharan Africa by the end of 1999.

HIV/AIDS in South Africa has increased rapidly over the past decade from almost zero in 1990 to some 5.0 million people living with HIV/AIDS in 2001. Already some 334,000 people were AIDS sick at the end of 2001 and this level is expected to treble to 1.4 million AIDS sick by 2009/2010. The social and economic consequences of these HIV/AIDS figures are far reaching and affect every facet of our lives in South Africa.

The reasons why the epidemic has spread so rapidly in our country are many and complex and may include – poverty, unemployment, social and economic conditions, the status of woman in society, migration and the challenges of development.

South Africa has created one of the most progressive and far-sighted policy and legislative environments for dealing with HIV/AIDS in the world. Despite this and despite the comprehensive HIV/AIDS programmes developed in the private and public sectors, the prevalence of HIV/AIDS continues to increase. This indicates that these policies and laws have not been adequately implemented and have not impacted significantly on the ground. This must be contrasted with the latest Human Sciences Research Council (HSRC) which shows a falling level of HIV infection among young South Africans. Prevention messages about condom use, abstinence and faithfulness are being taken to heart, especially by young people. The proportion of people in the 15-19 year age group with no sexual partner was 60% in 1998 and 70% in 2002. Use of a condom in the same age group was 20% in 1998 and 49% in 2002.

The Mining Industry and activities on HIV/AIDS

The mining industry has been proactive adopting an attitude of both concerned employer as well as developing a business case against HIV/AIDS.

- 1985 surveys to detect HIV amongst miners.
- 1986 first group of miners tested positive from Malawi; subsequent ruling by than Government that no foreign worker may work on mines unless tested resulting in strong opposition from many sides.
- 1988 TEBA's (Employment Bureau of Africa) healthcare services developed education and awareness campaigns on STD's (sexually transmitted diseases) and HIV, including videos, which were shown to all new employees.
- 1989 - KAP (Knowledge Attitudes & Practices) study that showed high level of knowledge by mineworkers about sexually transmitted infections including HIV/AIDS.
- 1989 a study on truck drivers showed that 50% of the drivers were infected with HIV whilst prevalence amongst mine workers was negligible.
- From 1990 to 1998 a randomly selected cohort of employees from one company was followed up annually for their HIV status. The sample set started with 2,292 employees; during the life of the study the cohort prevalence increased from **1% to 26%.**
- From 1998 to 2000 a community study in the Carltonville area (Mothusimpilo study) organised by the Centre for Scientific and Industrial Research and the South African Institute for Medical

Research showed for each of three years the prevalence of HIV increased from 28% to 30% (roughly 200 entry level employees participated).

- 1991 The Chamber of Mines signed an agreement with the National Union of Mineworkers on HIV/AIDS, which set out fundamental principles such as pre-employment testing, confidentiality, training and benefits; included in the agreement was the commitment to a united effort to address HIV/AIDS.
- 1991 The Chamber of Mines participated in the formation of NACOSA – the National AIDS Coalition of South Africa. The Chamber contributed in the development of the National AIDS Plan that was handed to the Department of Health in 1994.
- 1993 The Chamber of Mines established a standing committee on HIV/AIDS in the Chamber to continually assess and establish best practice in the industry.
- 1994 The Chamber of Mines reviewed and customised the WHO document 'Clinical Management of HIV/AIDS' for the mining industry.
- 1995 The Chamber of Mines commissioned a survey on HIV/AIDS in Southern Africa; this was discussed at a World Bank Congress on HIV/AIDS held at Victoria Falls in 1995.
- 1990's onwards Chamber of Mines members increasingly started introducing HIV/AIDS programmes which included – training of nurse counselors and peer educators, free condom distribution, awareness and education programmes, free STI treatment, treatment of opportunistic infections especially TB.
- Repeated KAP studies within different companies over the years have shown very high levels (95%+) of knowledge and awareness amongst employees within the mining industry. A more detailed study in one of the companies in 2000 indicated the following-
  - i. 29% of people had unprotected sex with more than one partner
  - ii. 21% had unprotected sex with someone other than their regular partner.
  - iii. 13% had been recently treated for a STI.
  - iv. 28% were uncomfortable with HIV+ employees participating in certain occupations
- 1996 The Chamber of Mines raised the issue of HIV/AIDS at the Leon Commission
- 1998 The Chamber of Mines fully participated in the development of the ILO Code on HIV/AIDS in the workplace.
- 1999 The Chamber of Mines supported the call for partnerships in the fight against HIV/AIDS by Deputy President Thabo Mbeki
- Chamber members have increasingly been involved in making their HIV/AIDS programmes available to surrounding communities and making facilities available in partnership with the state.
- 2001 The Chamber of Mines signs agreement with Government and Labour to establish a Tripartite HIV/AIDS Committee for the mining industry.
- 2001-2002 Chamber of Mines members begin signing specific HIV/AIDS agreements with labour unions.
- 2001-2002 Chamber of Mines members sign specific agreement with TEBA to provide home based care for terminally ill miners who have agreed to return to their homes in the rural areas
- Chamber of Mine members have played a significant role in international organizations e.g., ILO, World Business Council, International funding groups.
- 2003 Agreement with Government and Labour to have a Summit on HIV/AIDS in the mining industry
- 2003 Mining Industry Tripartite HIV and AIDS Summit with declaration signed by all members
- 2003 Mining industry involvement in the writing and development of the comprehensive national policy on treatment and care on HIV and AIDS
- 2006-2007 Mining industry involvement in the National Strategic Plan on HIV and AIDS and STI's
- 2007 onwards Mining Industry representation in the restructured

South African National AIDS Council (SANAC)

- 2003 to present Mining Industry implementation of comprehensive programmes on HIV and AIDS including the monitoring and evaluation of programmes

It is important to state that all of the above has taken place within the context of a mining industry that provides comprehensive medical services as well as other benefits.

Vision

1. To develop and strengthen partnerships with Government, Labour and NGO's
2. To prevent new infections amongst the workforce.
3. To care for those infected or affected by HIV/AIDS
4. To provide outreach to the surrounding communities.
5. To base interventions on research and best practise.
6. To manage the impact of HIV and AIDS, enabling the industry to remain globally competitive for the benefit of employees, their families, shareholders and the country.

Policy

Companies in the industry developed their policies influenced by best practises on HIV/AIDS from various parts of the world, the SADC code on HIV/AIDS in the workplace, the ILO code, the Department of Health strategic document on HIV/AIDS TB and Malaria, and the NEDLAC code. This in addition to workplace agreements reached with labour unions and experience gained in everyday practise within the working environment. All HIV/AIDS policies integrate the following principles –

- Non discrimination: (1) no employee shall be dismissed on the ground of his/her HIV status; (2) no hiring decision based on HIV assessment; (3) training within the workplace not influenced by HIV status; (4) advancement or promotion not dependent on HIV status
- Confidentiality and disclosure: (1) no employee required to disclose his/her status; (2) should the employee want to disclose his/her status voluntarily, it cannot be disclosed to others without the employee's written consent.
- Benefits will be applied equally to all employees (1) medical assistance is provided to an employee in accordance with the rules of the health care delivery system to which the employee is contracted**.** (2) pension funds and provident funds are applied equally to all employees.
- Ill-health retirement: (1) When an employee is deemed medically incapacitated the employee is provided with an ill health retirement package. (2) If however, the employee wishes, he/she can submit a dissenting opinion from a independent registered medical practitioner.

Programme Description

Companies have developed in-house models to provide workplace prevention, informed consent voluntary counselling and testing (ICVCT), care, support and treatment programmes.

- Company workplace prevention programmes have improved continually; this has necessitated revision of policies with labour organisations;
- Prevention programmes focus on awareness events, training, peer education, condom distribution, and syndromic management of sexually transmitted infections (STI);
- Strong partnerships have been developed between companies within an operational area and neighbouring communities to reduce the risk

of HIV/AIDS
- ICVCT and wellness programmes are increasingly being introduced;
- Home based care options including one through TEBA, for ill-health retirees are in place.

Programme Evaluation

Companies have introduced review and monitoring mechanisms to evaluate the effectiveness of programmes introduced. This has been complimented by research done in-house or through contracts to independent researchers.

These mechanisms concentrate and focus on the effectiveness of the programmes in certain areas-

1. ICVCT uptake (informed consent voluntary testing and counselling)
2. Condom distribution and uptake
3. Peer educator competency and accountability
4. Where Anti-retroviral treatment has been introduced measuring uptake, adherence, side effect profiles, costs.

Increasingly companies are setting desired outcomes. Some of these outcomes are:-

- Increasing VCT uptake from the current 10-15% of employees to all employees.
- Encouraging all employees to attend regular peer education activities.

Financing

Every company in the mining industry has developed budgets for both workplace and community intervention programmes.

- Companies spend in the region of R220-000 to R480-00 per annum per employee on workplace HIV/AIDS programmes. The budget covers awareness campaigns, formal training of employees, peer educator training, STI treatment, VCT and wellness programs and home based care.
- Each operation is expected to augment the budget with local community programmes – budgets are allocated separately for community partnerships – Mothusimpilo, Bambisanani, Lesedi, Powerbelt and Carletonville home based care programme to name a few.
- Where companies are introducing antiretroviral treatment programmes as part of their comprehensive HIV/AIDS programmes separate budgets are allocated.

Prevention and Awareness

Company internal programmes focus on awareness, education, training, peer education, condom distribution, syndromic management of STI's and community interventions.

- Awareness raising events: sports days, theatre, music festivals, HIV/AIDS rallies, radio, newspaper and poster campaigns.
- All employees undergo induction training, which includes an HIV component; qualified instructor’s train HIV/AIDS instructors/ facilitators.
- Peer Educators are training by experts through a 5-day participative, supportive and counselling course. Peer educators focus on Abstinence, Be Faithful, and Condomize (ABC) and promote the use of ICVCT and wellness services. Most companies are trying to improve the ratio of peer educators to employees (present ratio 1:65 to 1:145)
- Free male condoms are provided within the workplace environment.

Some companies provide female condoms.

- All companies provide syndromic management of STI's and some introduced the concept as early as 1982: health care practitioners are trained in syndromic management. Clinics also provide STI counselling to all patients.

Neighbouring community prevention programmes developed through a portfolio of public private partnerships.

- The partnerships aim to cover all of the communities immediately surrounding the companies operations.
- The local partnerships target high-risk groups to (1) target behaviour change (2) provide access to counselling (3) provide syndromic management of STI's (4) provide periodic presumptive therapies (5) provide condom promotion and distribution.
- The partnerships utilise mobile clinics with fully trained professional nurses.

Voluntary Counselling and Testing

ICVCT programme is available to all employees.

- Some companies have developed protocols and processes for the programme with organised labour- others are in the process of doing so.
- The programme adheres to WHO guidelines for informed consent, pre-test counselling and post-test counselling with all medical practitioners trained in the defined work-flow.
- Every person, regardless of the test result receives in- depth post-test counselling.
- The uptake in the VCT programme is improving as employees recognise the importance of this intervention.

Care, Support and Treatment

Wellness management programme designed to extend asymptomatic productive life as far as possible.

- Lifestyle and skills education and counselling (the importance of change in behaviour, nutrition, exercise, stopping alcohol and smoking, attending regular counselling and medical examination and the use of nutritional supplements is encouraged).
- Patients undergo the mine standard annual medical exam. HIV patients are scheduled for medical review at intervals dictated by their individual disease status.
- Management of opportunistic infections: (1) chemical prophylaxis against TB and other opportunistic diseases; (2) early identification and treatment of other opportunistic infections.
- HIV+ employees are provided with psychosocial support
- The role of traditional healers.

Antiretroviral therapy presently provided to the following employees-

- Employee who has been occupationally exposured: prophylactic treatment.
- MTCT (mother to child transmission)**:** therapy provided during pregnancy to HIV+ pregnant employees according to accepted protocols.
- Rape victims: provide prophylactic treatment.
- Some companies are beginning to provide treatment to employees living with AIDS.

Private-public partnerships support impact of ill-health retirements on rural communities.

- Co-ordinated outreach programmes to people at high risk through strategic partnerships with other mining companies, government, CBOs and NGOs. The partnerships are funded on a per capita fee paid by participating companies and through additional contributions from local and international funding organisations.
- The partnerships provide: (1) community based capacity building (2) home based care (3) support groups and income generating activities (4) care and support for orphans.
- Employees home based care is managed and financed by individual companies except for the companies who have signed service level agreement with TEBA. These partnership agreements for home based care (January 2002) include: mines and businesses, TEBA, funding agencies, organised labour, communities, hospitals / clinics and local government.

Socio-economic Impact

The HIV/AIDS epidemic confronts South Africa at a time when its economy has been averaging a 2% per annum growth rate in the past decade and with inflation averaging 6.5%.

Macro-economic simulation of the impact of HIV/AIDS on the South African economy is a complex exercise requiring multiple assumptions. Most of these models have looked at five broad economic impact channels-

- A lower overall population and labor force which affects both the production potential of the economy and the expenditure side of the economy.
- The direct costs, which include increased contributions to medical benefit schemes, disability cover, etc.
- The indirect costs (e.g. Increased absenteeism, reduced productivity and impact on training).
- An increased level of government expenditure as a result of higher demand for public health and social services.
- Private households will bear the brunt of home care costs of family members living and suffering from AIDS, the cost of funerals, and the care of orphans which will reduce household savings and spending in other areas.

Independent of the above models, the industry recognises that HIV/AIDS is having the following effects on labour and therefore on the economy of the company-

(a) Productivity is being affected by the increasing illness of the employees necessitating absenteeism and increasing sick leave;
(b) Training and replacement of labour once the employee becomes medically incapacitated or dies replacement labour is required and productivity is reduced.
(c) Staff morale – loss of colleagues, increased workloads, perceived and actual discrimination, uncertainty about HIV/AIDS and the fear of infection will undermine morale and productivity.

Mining has traditionally been the primary source of non-agricultural employment in rural South Africa and parts of rural Southern Africa. Despite the increase in recruitment from immediately surrounding communities to mine operations in recent years, the majority of mineworkers remain people from rural South Africa and southern African communities.

In recognising the role that migrancy plays in contributing to the HIV/AIDS epidemic, the industry remains mindful of the impact that a sudden change in policy in this specific area will have on the ‘politics’ of the region. The industry subscribes to the view that this issue is wider than the industry itself and therefore requires careful consideration and

discussion with all parties concerned.

The issue of suitable housing for employees in the mining industry including that of hostel living remains a challenge to all partners represented at this Summit.

In recent years mining corporate social plans and social processes have concentrated on rural development – this in addition to the role employee remittances from employment in the mining industry has played over the years. Most mining companies have a number of independent programs in the rural areas – building of schools, provision of teachers and teaching materials, water reticulation and sanitation, clinics, healthcare programmes and HIV/AIDS education.

The industry recognises that HIV/AIDS has much wider implications than just one person who is HIV positive and then subsequently becomes sick. Within the mining industry most mineworkers are male, the breadwinners and the head of the household – this person becoming sick and unavailable often results in the disintegration of not only the immediate family but also the extended family. The effect of the loss of this important individual impacts critically on the social cohesion of the family unit.

Research

In the last two decades enormous resources have gone into researching HIV/AIDS globally-

- Psycho-social science has documented many of the determinants on vulnerability and susceptibility to the infection
- The impact of healthy lifestyle on the progress of HIV/AIDS
- The impact of early detection and treatment of opportunistic infections
- The relationship between other STD's and HIV
- the social and economic impact of introducing antiretrovirals
- the reduction and prevention of mother to child transmission
- Clinical management protocols
- the development of an effective vaccine against HIV/AIDS

In the mining industry a number of complex and interrelated factors have complicated research into HIV/AIDS. Committed partnerships between all role players in the industry has to be openly addressed to reach a situation where research can be undertaken to the benefit of all. Ownership and trust has to be developed between mines, unions and government for long-term research to continue happening.

Nevertheless much valuable work has been done through co-operation between mining companies, unions, the HRSC, Universities in South Africa and abroad, the MRC, the South African Institute of Medical Research and the International and South African AIDS vaccines initiatives.

Last year SIMRAC (safety in mines research advisory committee) commissioned research on housing and nutrition in the mining industry and in this year research will proceed on determining the impact of HIV/AIDS on health and safety in the industry.

Key Success Factors

As HIV/AIDS programmes in the mining industry have evolved many lessons have been learned. For the successful implementation of the HIV/AIDS programmes some if not all of the following need to be in place-

- All role players must be involved, and educated to similar levels of understanding about HIV/AIDS and committed to achieve results.

- Involved and committed top management and leadership of the labour unions combined with all employees.
- Fully representative committees.
- Commitment to eradicating stigmatisation.
- Collect data and model the potential impact to facilitate data supported decision making and continuous programme improvement.

Conclusion

Dr.Gro Harlem Brundland, the Director General of the WHO had this to say at a recent conference on HIV/AIDS:

" **No one constituency can act alone to change the face of the epidemic, whether we are from national governments or international agencies, associations of people living with HIV, the private sector, academic institutions, community organisations, or public interest groups**".

These important words by the former Director General of the World Health Organisation remain as important today and the mining industry remains committed to combat the HIV/AIDS epidemic and to strengthen and reinforce all the partnerships that have been developed and those that need to be developed.

We standby and continue to echo the words of Dr. Brundland.

Industry

The South African mining industry-

- Produces 55 different metals from 707 mines and quarries.
- In terms of the number of major mineral commodities produced, South Africa comes in second to the U.S.A.
- Number of South African Operations-

Diamonds	69
Coal	62
Gold	39
Chrome	13
PGMs	12
Other	512.

- Role in the Domestic Economy-

Contribution: GDP	R66.8bn
Percentage of total GDP	7.5
Mineral Exports	R88.5bn
Employment	407,152
% of economically active	2.6
Employees remuneration	R24.4bn

- Major Employers in the Sector-

Gold	201,698
PGMs	99,571
Coal	50,771
Diamonds	16,294
Copper	5,742
Chrome	5,026
Iron Ore	5,022
Other	23,028
Total	407,152.

It is important to remember that the nature of the mining industry means that a number of multiplier effects come into play when considering the overall impact on the economy, i.e. the overall contribution to the economy is bigger than the direct contribution.

Case for Action

The large numbers of workers employed within the mining industry, the growing impact of HIV/AIDS within the industry as well as society has resulted in increasing HIV/AIDS programme budgets and activities- this to match the need to prevent new infections, to extend the lives of HIV+ employees and to provide these employees with the option of ill-health retirement with dignity. Currently one in four to one in eight employees within the industry is HIV positive; without intervention the cost to both country and the industry would be enormous – economically and socially.

- KAP studies over the years have indicated high levels of understanding amongst the workforce about HIV/AIDS.

- In 2000, a study done in one company estimated the HIV/AIDS related costs to be R16-00 per ounce. Without successful intervention, this could peak at R93-00 per ounce in 2009. This worse case scenario could translate to as much as 30% of this particular companies net income for 2001.

HIV/AIDS is having a profound effect on workers and their families, communities, enterprises and national economies. In South Africa the proportion of the mining force that is HIV positive is above that of the population as a whole (e.g. 20-30% of the mining workforce v. 12% of the general population) When looking at men of working age 20-55 yrs