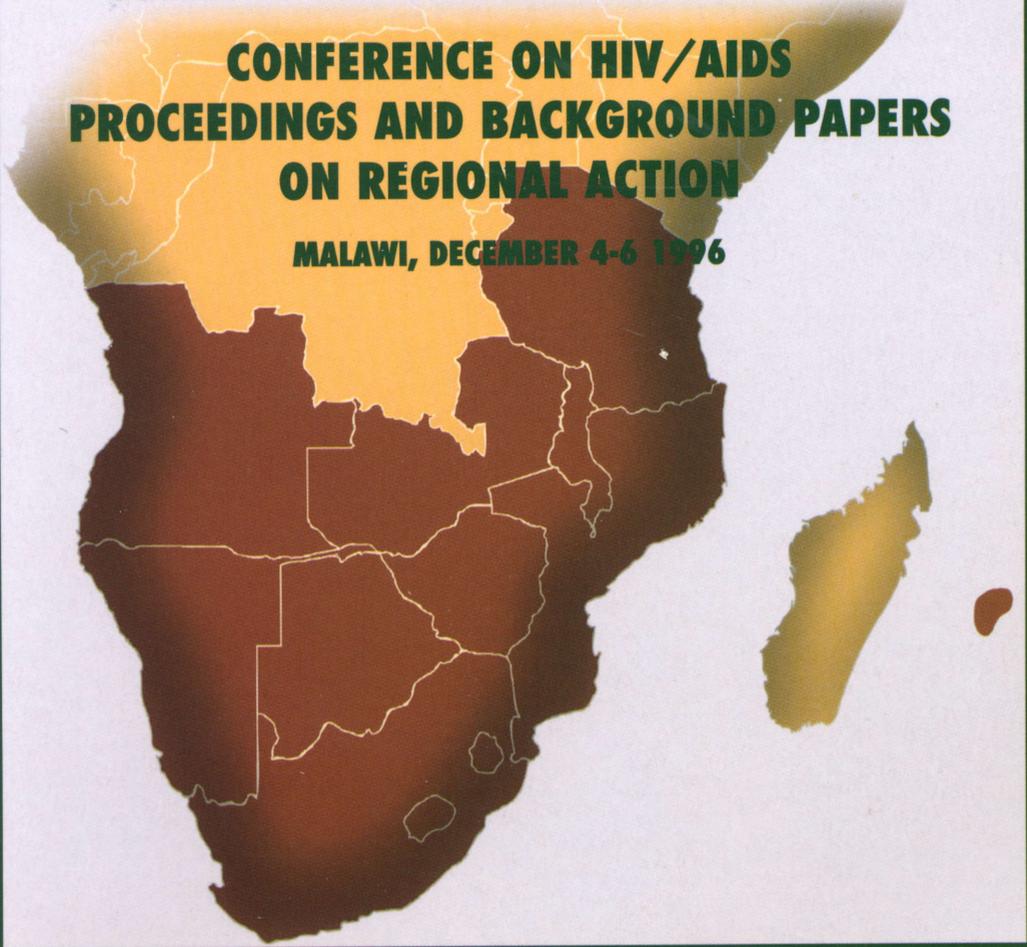




**EUROPEAN UNION
SOUTHERN AFRICAN DEVELOPMENT COMMUNITY**

**CONFERENCE ON HIV/AIDS
PROCEEDINGS AND BACKGROUND PAPERS
ON REGIONAL ACTION**

MALAWI, DECEMBER 4-6 1996



EUROPEAN UNION
SOUTHERN AFRICAN DEVELOPMENT
COMMUNITY

Conference on HIV/AIDS

**Proceedings and Background Papers on
Regional Action**

Malawi, December 4-6 1996

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Wettelijk Depot 1997/6325/2

Printed for the EC AIDS Task Force by:
Printing House Ltd. Erasmus, Wetteren, Belgium

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SECTION 1: Introduction

This report describes the background and proceedings of a regional conference on HIV and AIDS, jointly organised by the European Union (EU) and the Southern African Development Community (SADC), held in Malawi in December 1996. The report also includes five technical background papers prepared for the conference.

The **Background to the Conference** in Section 2 describes the rationale for the conference in the context of HIV/AIDS in the region, co-operation in the region and between the EU and SADC. It highlights the need to see HIV/AIDS in the broader context of health, development and gender, and issues of regional concern that would benefit from a regional response.

Section 3, **Conference Proceedings: Developing a Regional Response to HIV/AIDS**, summarises the conference discussions on each of six key topics: employment, mining, tourism, education, medical drugs and data.

The **Background Studies**, edited versions of which are included in Section 4, were commissioned for the conference from regional experts, to assess particular sectoral and inter-sectoral issues related to HIV and AIDS. The studies define the developmental context, focusing on how HIV/AIDS relate to other problems, the wide range of factors that influence the *susceptibility* of people to infection by HIV, and their *vulnerability* should they be infected.

The areas analysed in the Background Studies were selected because they represent the wide range of activity and thinking that policymakers need to address to achieve a lasting impact on the transmission of HIV and the survival and support of people with HIV infection. Each Background Study assesses the impact of AIDS and HIV on the sector concerned and the potential impact of the work of the sector on AIDS and HIV.

Section 5 summarises the main **Conclusions** of the conference. Urgent action is needed to address the developmental, institutional, human, social and economic impact of HIV/AIDS, and an effective response to many of the more complex issues benefits from action at the regional level, as well as at the national and community level.

The two main outcomes of the conference, a statement on regional responses to HIV/AIDS and a SADC plan of action on HIV/AIDS have been published in a separate report *Proposal for Regional Action*, which focuses on policy conclusions. This report, which focuses on the technical issues discussed in the workshops and the Background Studies, complements the *Proposal for Regional Action*. It is intended for those interested in more detailed information about the issues, in particular those concerned with social and regional development in the SADC region, those responsible for developing and implementing regional policy and action, and those working in a range of sectors who may wish to consider the impact of HIV/AIDS.

SECTION 2: Background To The Conference

1. Stronger regional ties and EU/SADC co-operation

The objective of closer regional integration is common to both the European Union (EU) and the Southern African Development Community (SADC). In SADC, the positive experiences of closer co-operation between the governments and peoples of Southern Africa has led to a greater emphasis on joint actions.

This strong regional emphasis resulted in the establishment of a region-to-region dialogue between the EU and SADC under the Berlin Initiative (September 1994). In the words of Minister Brian O' Shea, Irish Minister of State for Health, at the opening of the Malawi Conference:

“The European Union and the Southern African Development Community have much to offer each other, operating in a regional context, on the basis of integrated philosophies and approaches, in a spirit of mutual co-operation, understanding and interdependence. Each of us are responding to economic and social challenges and are seeking to advance the well-being of our peoples.”

One of the main challenges identified by both partners during this ongoing political dialogue is the need for regional collaboration to address the problem of HIV/AIDS in Southern Africa. As the SADC Deputy Executive Secretary, Mr. L. B. Monyake, explained, the decision to put HIV/AIDS at the forefront of regional priorities is in the context of:

“A continuation of systematic efforts in SADC to take on board priority and urgent concerns in the social sectors that require regional attention. Our SADC Programme of Action so far has put much emphasis on the development of economic sectors. While acknowledging the central role that these areas play and the positive results that have so far been recorded, we are mindful of the fact that these achievements can only be sustained and improved upon if the social sectors are also given due attention.”

This view is reflected in the current deliberations by the SADC Council of Ministers on the creation of a new SADC Sector on Health. And, the serious concern at a regional level about HIV/AIDS was welcomed by the Malawi Minister of Finance, Mr. Aleke Banda, as encouraging “since none of our individual countries, on their own, could effectively reverse the trend and consequences of HIV/AIDS.”

According to Minister Banda, the best possible approach to addressing the problem of HIV/AIDS is to continue:

“Encouraging such regional co-operation, by strengthening the cross-fertilisation of observation and experiences—both positive and negative.”

2. Advantages of regional co-operation on HIV/AIDS in Southern Africa

Regional co-operation is building on existing national responses to HIV/AIDS in Southern Africa. Individual SADC countries have implemented programmes and strategies for many years and it is important to stress the value of ongoing national initiatives. As the representative of the SADC Presidency, Dr. Olive Shisana, Director General for Health in South Africa, pointed out:

“Each one of the countries in our region have had much experience with programmes for AIDS. Some of the countries have been developing responses for over 10 years.”

These national HIV/AIDS programmes have, over the years, been allocated significant national and international resources. According to Mrs. Dominique Dellicour, Head of the Health, Family Planning and AIDS Unit of the European Commission Development Directorate:

“Between 1987 and 1996, EU support for the Southern African region amounted to nearly 40 million ECU. This support was focused mainly on prevention strategies in countries like Botswana, Lesotho, Malawi, Mauritius, Namibia, Mozambique, South Africa, Swaziland and Tanzania through the improved management of STDs, information, education and communication programmes focused on targeted groups, and strengthening health services in the field of blood safety in countries including Angola, Lesotho, Zambia and Zimbabwe.”

As the dimensions of the HIV/AIDS problem and the possible responses have become better known, donor and individual country strategies have shifted from an emergency phase into a long-term structural approach. It is within the context of this longer term approach, as well as existing national initiatives, that the possible benefits of regional co-operation on HIV/AIDS for the countries in the Southern African region, as well as for the region's donors, should be assessed.

From the start of the Conference, SADC and EU keynote speakers were agreed on the broad benefits of regional approaches which can:

- offer economies of scale (e.g. in research and training);
- be more responsive to particular regional characteristics of the HIV epidemic (linked to the rate, extent and pattern of transmission of HIV);
- better address the needs of specific vulnerable groups which are not confined within the national borders of one country (e.g. migrant workers, refugees, tourists and specific categories of mobile workers in the transport or rural sectors);
- be more responsive in validating effective local approaches to HIV prevention and care (e.g. exchange of information on interventions in the field of education or in home-based care);
- contribute to creating a sustainable capacity to conceive, design, implement and evaluate HIV and other sexual health programmes (e.g. networking on data exchange).

3. HIV/AIDS in Southern Africa: a multisectoral problem

3.1 The scale and nature of the epidemic

The seriousness of the HIV/AIDS epidemic for Southern Africa and its potential negative impact on the future development of the region as a whole were emphasised at the opening of the Conference by Dr. Avertino Barreto, Head of Mozambique's National AIDS Programme:

"The implications of HIV/AIDS are beginning to be understood and felt as more and more of the people infected by HIV several years ago now develop AIDS, fall ill and die. There are probably more than 210,000 people in the SADC region at the moment with AIDS. This represents the numbers of those infected five or more years ago. The current number of people with HIV infection (who have not yet developed AIDS) is probably in the region of 3-4 million (assuming a general prevalence of 5-6% in the adult population). This number is still increasing and is likely to increase for at least a further five years."

The epidemic is at different stages in different countries of the region. In Malawi, Tanzania, Zimbabwe, and probably now also in Botswana, the epidemic is at a late, mature stage. In these countries, more than 10% of women attending ante-natal clinics in urban areas are found to be infected with HIV, and in some surveillance sites in these countries, rates may reach 30%. Other countries, where the epidemic is following a similar pattern of transmission (through heterosexual contact) are currently passing through an intermediate stage where between 1% and 10% of women attending urban ante-natal clinics are infected with HIV.

While recognising that the specific additional impacts resulting from HIV may seem small in overall economic terms at the present time, Dr Barreto warned that:

"The greatest concern arises from the additional and incremental impacts over time on particular work forces, systems and people that are already over-stretched. These impacts are also being seen amongst professional staff in the public support sectors such as health and education. In some countries, the gradual attrition of senior staff in some firms has led to their replacement by junior staff who are inexperienced and cannot handle the type of work that is required. We have already seen the impact on rural livelihoods and farming systems in Tanzania, and the projected increase in the numbers of orphans by as much as 50% will potentially have a major impact on urban areas of the region."

Potentially the greatest impact may be felt by those whose activities are not counted by standard measurements of economic performance and productivity. There are few mechanisms for valuing the resources, time and labour of people (especially women) in the informal sector, in peasant agriculture and in the household. Yet it is likely that these areas contribute in a variety of ways to the larger picture and will be impacted by the epidemic.

In conclusion Dr. Barreto stressed the need to monitor the epidemic and for the region to plan for the long term:

“The rate of HIV infection in sexually active adults continues to rise. Under circumstances that are not fully understood, epidemics may suddenly explode with rates of infection increasing several fold within only a few years, as has been observed recently in Botswana and South Africa. To deal with the situation, a balance of human, social and economic factors need to be taken into account in planning both for prevention, and for mitigating the increasing impact over the next 5-10 years as large numbers of those who are currently infected become sick and die.”

3.2 HIV/AIDS in different contexts

The scale and nature of the epidemic in the region show clearly that HIV/AIDS cannot be seen in isolation, either in terms of the pressure it places on existing health care or in terms of its broader social and economic impact. There was an overwhelming consensus at the Conference that HIV/AIDS needs to be considered in relation to a number of different contexts, including health, development and gender.

3.2.1 The health context

HIV/AIDS must be viewed within the wider health context and the range of health problems that face the region. In particular, the association of HIV/AIDS with TB which has resulted in an epidemic of TB as AIDS has spread, and the links between the occurrence of STDs and increased susceptibility to HIV/AIDS need to be taken into account.

3.2.2 The development context

There is a wide range of factors that increase susceptibility to HIV and an equally wide range of situations that result from HIV and AIDS. HIV/AIDS policies need to take account of the local social and economic situation and the vulnerability of peoples, societies and systems, and to reflect the overall context of development.

3.2.3 Gender

The issue of gender is related to the social and economic context. Gender is already identified as an area for attention within the SADC framework of co-operation, and the view of the Conference was that gender should be at the forefront of any consideration of a regional response to HIV/AIDS in Southern Africa. Dr Sheila Tlou provided the perspective of women in Southern Africa as part of the introductory statements at the Conference and her speech is quoted on the following page.

In summary, the repeated emphasis at the Conference on the importance of taking account of a variety of social, cultural and economic factors in any regional response to HIV/AIDS in Southern Africa, clearly points towards the need for the response to be a multisectoral one.

Women and HIV/AIDS In Southern Africa

Dr. Sheila Tlou,

President of the Botswana Branch of the
Society for Women and AIDS in Africa

The HIV/AIDS pandemic is having a major impact on the quality of life of women. The increase in the number of women infected with HIV in the region has been very rapid. This is due to, among other things, the low status of women in society which—in turn—is worsened by the social and economic impact of HIV/AIDS.

In all SADC countries, monogamy and mutual fidelity are promoted and encouraged as a primary AIDS prevention strategy, but it is women who are expected to adhere to this norm while male deviation from it is tolerated and at times condoned. One would be right in saying that, in our region, the so-called monogamous societies are just as polygamous as those that allow for multiple sex partners. As a result, the woman is more likely to be monogamous but will still become infected by her one partner—her husband.

Customary inheritance laws usually leave wives with nothing. Even where anti-inheritance laws exist, it is usually difficult to enforce them. Among many African tribes, for example, it is customary that the husband's relatives claim all of the household's possessions upon his death. This might leave the widow without a home and means to earn an income. She may be forced to send her children away or end up as a commercial sex worker.

This illustrates the need to employ a multisectoral approach. It is not AIDS itself that is at issue, but the complex factors surrounding the illness. Different SADC sectors need to look at HIV/AIDS from their perspective in order to develop a meaningful response.

When one considers data that is available on women and HIV/AIDS in the region, several questions emerge concerning its comparability across countries. For example, in Botswana 95% of pregnant women attend an ante-natal clinic. Here one can quite accurately state that 34% of pregnant women are seropositive. What about other countries where, for example, only 50% of women have access to such services? Data from such

countries that show 12% of pregnant women are infected do not take into account the other 50% who do not attend. Indeed seropositivity could be anywhere between 12% and 62%! This illustrates the need for the region to develop mechanisms for the harmonisation, analysis and use of data.

Women in the SADC region infected with HIV/AIDS do not have access to medical drugs. In particular, drugs for the treatment of opportunistic infections. A regional policy on research into anti-viral drugs is needed. This can be developed in relation to a regional protocol for essential drugs. Less expensive drugs are needed at primary and secondary intervention levels. In the area of prevention of transmission of HIV, female-controlled methods of prevention are needed that can be used without the knowledge or consent of a woman's sexual partner.

In the education sector, problems already exist. The career set-up in the sector is such that most of the teachers at primary and secondary level are female. Women are the main carers in the family. When a family member—a child, a husband or an elderly parent—is sick, it is the mother who is responsible for taking them to a health facility. This is one of the reasons behind the increased absenteeism in the sector, a factor which often leads to a decrease in the overall quality of education.

In the employment sector as a whole we find that women play an important role. Women provide labour in the agricultural sector, in the household, and in small businesses as vendors and hawkers whose trade often takes them from one country to another. Increased numbers of women who are ill or dying will have a major impact on the employment sector in each country and on the economy of the region. A regional policy on HIV/AIDS in the workplace should be developed to take account of those women in formal as well as in informal employment.

In conclusion, at a regional level responses to HIV/AIDS should seek to address the issue of women and HIV/AIDS through:

- a) Collaborative research on the interaction between women's economic and social status and their vulnerability to HIV infection. This would allow for the comparison of data across countries and result in formulation of regional policies which take into account the vulnerability of women.
- b) Concerted efforts aimed at the empowerment of women. This would enable women to participate in activities, events and processes that shape their lives. Most countries in the region have taken a step in the right direction by ratifying the Convention on the Elimination of all forms of Discrimination against Women (CEDAR) and changed their laws to be gender neutral. This includes governments' commitment to carrying out the recommendations of the Fourth World Conference on Population and Development (Cairo, 1994) which state that sexual and reproductive rights are fundamental to human rights and development.
- c) Sponsorship of bio-medical science research to develop female-controlled methods for the prevention of HIV transmission, such as vaginal microbicide which allows passage of sperm but blocks transmission of viruses and bacteria.
- d) Improving home-based care, so that the burden of care does not fall solely on women. The stress on women who are care-givers is apparent among women in the region. Similarly, there is the effect care-giving has on the schooling of girls. Regional intervention should support training for women in care-giving as well as providing 'respite care' for primary care-givers.

SECTION 3

Conference Proceedings:

Developing a Regional Response to HIV/AIDS

1. A regional framework on HIV/AIDS

The complexity of HIV/AIDS and the need for it to be dealt with simultaneously as a multisectoral, developmental and regional problem presents the Southern African region and its co-operating partners with an enormous challenge.

Welcomed as a first important step, the Conference set out to identify a policy framework for regional action on HIV/AIDS in Southern Africa, the aim of which would be to strengthen initiatives addressing HIV/AIDS in two ways, through:

- regional support aimed at enhancing national actions; and
- specific regional activities.

The task of creating a regional policy framework for action—if the framework was to be feasible, productive and politically workable—required the input of key actors from a variety of sectors and institutions involved in areas relevant to regional policy formulation and implementation.

Hence, participants at the conference included:

- representatives of all SADC Member States, both governmental and non-governmental;
- people with HIV/AIDS;
- health experts as well as experts on other sectors affected by the epidemic;
- those responsible for regional policy implementation at a national level and those involved at a regional sectoral level;
- observers from bilateral and multilateral donors; and
- journalists from the region and from the EU.

Their combined expertise ensured a better understanding during the debates of regional and national policies and actions on HIV/AIDS in the different SADC Sectors which are affected by the pandemic and which were the focus of Conference discussions. More importantly, the involvement of key actors at the earliest stage of policy formulation should ensure the necessary follow up to the framework and actions agreed upon during the Conference.

2. Specific areas for regional action

The specific issues which were chosen for discussion at the conference (employment, mining, tourism, education, medical drugs, and the use of data) all underlined the critical links between the HIV/AIDS epidemic and the broader development of the region. Their prominence during a conference on HIV/AIDS testifies to the overwhelming agreement within the region that policies and actions related to HIV/AIDS are the concern and responsibility of all sectors, and not just the health sector.

These topics were selected, not because they were considered to be the most important areas affected by HIV/AIDS, nor because they are the only areas for action or of concern. Rather, they were chosen to provide a significant starting point for the development of regional policy in areas that are both of relevance to HIV/AIDS and of interest to SADC, and where regional co-operation and policy development already exist.

The starting point for exploring each area was a basic assessment of:

- the impact of HIV/AIDS on the topic or sector concerned; and
- the potential for regional action in that sector in relation to HIV/AIDS.

To support and promote discussion at the conference, a set of in-depth background studies were commissioned by the SADC Secretariat, in co-operation with the European Commission, on HIV/AIDS relating to: employment, mining, education, medical drugs, and data. The research, which was conducted by Southern African consultants, corroborated many of the views and findings from the conference, and summaries of the studies are included in Section 4.

3. Sectoral perspectives

Intensive half day workshops on each topic provided an opportunity for each sector to review the issues from within its own policy context. This process also enabled actions to be identified that are relevant to existing regional structures and policies.

The Co-ordinators for each sector acted as facilitators during the workshops. This not only strengthened the process, but also ensured that the main focus of the debates was on actions which were feasible and appropriate within the regional policies and structures of the sector concerned.

During each workshop, two key actors from within the sector were invited to give their perspectives, allowing for an informed discussion on existing problems and issues.

What follows is a summary of the main points put forward by the key actors and Sector Co-ordinators, and these provide a general introduction and background to the final recommendations from each workshop which are included in the SADC Plan of Action.

3.1 Employment and HIV/AIDS

The theme of employment and HIV/AIDS was introduced by the head of the Co-ordinating Unit for SADC's Employment and Labour Sector, Mr. L. Nyimba, from Zambia. As facilitator, Mr. Nyimba, outlined how HIV/AIDS relates to challenges already facing the sector.

In view of Southern Africa's economic and commercial growth potential, employment and labour is one of the key areas for regional collaboration. Yet, as Mr Nyimba notes, there are many difficult issues to be addressed, including:

- How to promote employment and productivity in a region where there are high levels of unemployment and where economic competition is intense.
- How to ensure that economic development takes place in a context of promotion of basic labour standards and improved social conditions.

3.1.1 Existing programmes in the employment sector

According to Mr. Nyimba, the SADC Employment and Labour Sector is already implementing policies and programmes to respond to these challenges, including:

- the development of a workers' social charter;
- the creation of a databank on labour markets;
- the promotion of International Labour Office standards;
- harmonisation of labour standards in the region; and
- a review of social protection systems.

The significance of HIV/AIDS for the sector, according to Nyimba, is that it impacts on all these areas where SADC is working. In addition, the nature and the scale of the epidemic is such that its impact will require specific actions. Of the formal sector working population in the region of about 61 million, about 15 million employees are expected to die of AIDS in the next decade. The productive age group is a high risk group for HIV. Although those affected by HIV may have many years of normal productive life, AIDS is fatal and thus adds to the absolute loss of people in the productive age group.

Because of the added challenges posed by HIV/AIDS, the parties in the Employment and Labour Sector have begun to address three main aspects of the epidemic:

- human rights, or more specifically employment rights, issues;
- production and productivity issues; and
- employment and labour market issues, including employee benefits and social security issues.

Mr. Nyimba explained why these issues have been selected and principle activities to date.

“Our first focus was human rights issues. Why? The first reaction to AIDS in many countries in the region was stigma and discrimination and some people, including some employers, tried to push the problem away by pushing away HIV positive people. Hence, a baseline of basic rights and

protections had to be developed that would protect those with HIV, while developing strategies for preventing its spread and dealing with the impact. Such strategies demand information and a climate of openness, and openness cannot be achieved when people are fearful for their jobs and security.”

“The SADC Employment and Labour Sector, motivated by governments who had begun to work in this area, and by trade unions concerned about employment rights, co-operated with its social partners, with ILO and OATUU (the Organisation of African Trade Union Unity) and other organisations to develop a code on AIDS and Employment. The code will aim to ensure non-discrimination between individuals with HIV infection and those without, and between HIV/AIDS and other comparable medical conditions.”

“The objective is that in the near future SADC member states will develop tripartite national codes on AIDS and Employment that are reflected in law. The code presents guiding principles for, and components of, these national codes.”

3.1.2 What remains to be done?

A lot has already been achieved at a regional level with the code, but, as Mr. Nyimba made clear, the code is only a starting point. He stressed that there are many other issues to which a response will be required from the perspective of employment and labour and which are increasingly of concern in the region, including:

- the role of the workplace in prevention;
- how to address lost skills and experience;
- losses in production;
- medical costs; and
- the viability of insurance schemes.

3.1.3 The employers' perspective

Speaking from the perspective of employers, Mr. Ian Gilbertson, Senior Medical Officer for the Mhulume Sugar Estates in Swaziland, stated:

“As employers, while we 'rationalise', 'unbundle' and 'focus on our core business', the HIV pandemic is forcing us to review many of our policies and practices as well as re-examine our role in society. Death from AIDS is an added and growing burden. In most businesses deaths from AIDS may be few in number but are proportionally large—responsible for 30% of all employee deaths in one company with which I am associated over a three year period.”

Mr. Gilbertson admitted that, faced with HIV/AIDS:

“Initially most employers, and most others for that matter, viewed HIV as purely a health problem and waited for relevant government departments to take the appropriate action. Later, realising we had a responsibility, we did, however, react by working with NGOs and government on HIV/AIDS awareness campaigns. In the larger companies, we have some form of AIDS

committee to monitor the course of the epidemic, consider the Issues affected by the impact and advise strategies to minimise this impact, but we are still to a large extent viewing this as a health issue. Now that we have a better understanding of the consequences of HIV/AIDS, it can no longer be seen as merely a health issue.”

Employers in the region need to look seriously at addressing a range of problems which will increase as the epidemic progresses. In this respect, Mr. Gilbertson highlighted how, depending on the level of benefits, payroll costs can significantly increase. Innovative methods will be needed to maintain benefits, without discrimination, whilst containing costs within acceptable limits. In order to achieve this, accurate data is required relating to the profile of the labour force, the health of the labour force and health-related benefit costs, if accurate projections are to be made of the business implications. He also highlighted the need to deal effectively with anticipated labour shortages, for example, through multi-skilling, reviewing training practices and doubling up on task performance capability. According to Mr. Gilbertson, as employers:

“We know that some of our practices—such as migrant labour, work involving long distance driving or construction—disrupt family life and impact negatively on the epidemic. We know that home ownership and promotion of family life has a positive effect. These can be economically and socially sensitive issues to handle, with no easy solution, but employers need to start addressing them.”

In addition, he recognised how giving women a fair deal in the workplace is just one strategy, but one that could have a significant effect.

Mr Gilbertson also stressed the importance of primary health care, which can prolong the life of HIV-positive workers and can also provide treatment for STDs, thus reducing susceptibility to HIV infection. In all these areas, regional collaboration is needed to develop protocols that are effective, safe and affordable. He suggested that:

“Where public facilities don't exist, business may see a social and economic benefit in contracting with primary health care providers or occupational health services.”

In his concluding remarks, Mr. Gilbertson emphasised how employers in the region would increasingly need to act along the lines suggested above and to take other action as proposed by the Conference. However, he emphasised that:

“Because of the all encompassing nature of the problem we feel strongly that it is the function of government to take the initiative, but to include all social partners, nationally and regionally. The dimensions of the problem of HIV/AIDS are such that, for employers, a regional approach to many issues would have significant beneficial effects. The initiative should come from government or possibly from existing regional structures, and we would welcome that.”

3.1.4 The insurance perspective

One of the pressing topics relating to HIV/AIDS and employment in Southern Africa as a result of AIDS, is the rising costs for medical health and life insurance benefit schemes. As more people are affected by HIV/AIDS, issues related to social security, insurance and employee benefits schemes will be of increasing importance—in particular the growing demands for savings and for resources to meet the needs arising out of illness and death. These issues concern the insurance industry, employers and workers alike.

The perspective of the insurance companies was presented to the Conference by Mr. Macdonald Chaora, General Manager with the CIMAS Medical Aid Society in Zimbabwe, who stated that the industry is acutely aware of the impact of HIV/AIDS.

Already, Mr. Chaora reported:

“Life assurance companies in Zimbabwe have adopted various mechanisms to protect their Funds from adverse selection by people with HIV/AIDS. This occurred when companies realised that 45% of claims were AIDS-related and most of the policies had been taken out only a few years before death.”

In South Africa in 1995, the Old Mutual Assurance Company decided to increase by 30% contributions to the death benefit scheme under which the employers pay 70% and the workers pay 30% of the premiums. Furthermore, they indicated that, in the next few years, further substantial increases would be necessary in order to maintain the same level of benefits. Both the employers and the union reacted to this with neither side wanting to bear the increased costs. The union also questioned the data on which these figures were based. This led to extensive negotiations among the three parties concerned about possible ways forward. Options under consideration include reducing the level of benefits so as to allow for a smaller increase in the premiums, and schemes which tie benefits to the total contribution made for an individual employee.

Medical aid societies operate on the principle that members contribute to a pool from which claims for the sick are paid. Inherent in this practice is the concept of cross-subsidisation where the healthy pay for the sick. However as Mr. Chaora explained:

“Since young people, all things being equal, usually enjoy better health, they make up the majority from whom health insurance companies make a 'surplus' to be able to subsidise the chronically ill as well as the elderly. The impact of AIDS has, however, created a paradox where the young are net consumers of medical care.”

According to Mr. Chaora, therefore:

“As medical aid societies have had no past experience of an epidemic of the magnitude of AIDS, they fear that either contribution rates will have to increase to a level that will make them affordable only to a few, or the Funds will become unviable.”

This would have serious ramifications, since health and life insurance is often the only form of welfare provision available to people with HIV and the dependants they leave behind.

Recent advances in AIDS treatment also pose a particular problem for insurance. Experimental drug trials widely reported during and after the 11th International Conference on AIDS raised hopes that the use of a combination of drugs may be effective against the AIDS virus. Medical aid has traditionally not paid for vaccine or experimental medication.

According to calculations by CIMAS, the costs of providing AIDS anti-viral drugs would be more than the monthly premiums received by the Fund. But, asked Mr. Chaora, "can the decision be simply wished away when some AIDS drugs may reduce costs for medical aid even by possibly as much as US \$6,382 per patient per year?"

In conclusion, Mr. Chaora pointed out that:

"HIV/AIDS will have far-reaching effects for those who have to meet its costs, whether they are governments, medical aid societies or other institutions. Health care finance planners need to assess accurately financial liabilities and then to find the resources to meet them. This does not mean that they should be passive; they can be pro-active by coming up with innovative ways of reducing the full impact of the costs. The insurance industry as a whole can improve data accuracy by funding medical research on AIDS."

3.1.5 Conclusions

Following a wide-ranging debate on the perspectives and issues presented above, the Employment and Labour Sector workshop identified a number of initial actions which could be taken at a regional and national level. These included:

1. The adoption of the regional code of conduct on employment and HIV/AIDS.
2. The inclusion of data and research on employment in a regional databank.
3. The initiation of a comprehensive assessment of the impact of HIV/AIDS on employment.

The full recommendations of the workshop were adopted by the Conference and are included in the SADC Plan of Action on HIV/AIDS.

3.2 HIV/AIDS and the Mining Sector

In Southern Africa, unique in its mineral riches, the importance of the mining sector to the economy of the region cannot be underestimated (see Table 1 in the paper on Mining in Section 4). As the SADC Mining Sector Co-ordinator, Mr. C. J. Chanda, explained, the sector:

"Contributes 60% of foreign exchange earnings and averages about 10% of the region's GDP. It represents approximately 5% (500,000 - 800,000) of total employment in Southern Africa" and unlike most other industries "provides social amenities such as hospitals and education."

According to Mr. Chanda, the potential impact of HIV/AIDS on the mining sector is obvious:

“One of the major inputs into the mining sector is labour. HIV/AIDS negatively affects human resource inputs and is therefore potentially detrimental to the mining sector.”

While little data is available concerning the prevalence of HIV at different mines, prevalence amongst mineworkers in each of the SADC countries is believed to be high. It is reasonable to assume that prevalence is at least on a par with that in the surrounding communities, which means that in some areas up to 30% of the workforce may be infected.

Many of the issues that need to be addressed in relation to HIV/AIDS and its impact on the mining sector, such as loss of productivity or increased costs of benefits, overlap with those already highlighted for employment and labour. However, as outlined by Mr. Chanda, there are a number of additional factors in the mining sector which make its workforce more susceptible to HIV/AIDS. Amongst others, these include the fact that the majority of the region's miners work away from their families and live in singles hostels.

There is a close link between migration and mining. This is especially true of the South African mines, which employ 83% of all mineworkers in the SADC region. In 1993 there were as many Batswana working on South African mines as working on mines in their own country. And while Lesotho has no significant mining industry of its own, remittances from the 85,000 Basotho working in South Africa contribute approximately a third of Lesotho's gross domestic product.

In the mining sector it is clear, therefore, that there is much to be gained by addressing HIV issues at a regional level and this calls for immediate action by regional organisations. Mr. Chanda highlighted the importance of developing a regional methodology in assessing and monitoring the impact of HIV/AIDS in the mining sector and in developing regional guidelines on intervention and action.

This will require close co-operation between governments, mining companies and trade unions, with SADC governments giving a clear lead.

3.2.1 The perspective of the mining companies

In developing a regional approach, the experiences of many mining companies, which have already put substantial effort into establishing prevention programmes, could be invaluable. Some of these programmes were implemented very early on in the epidemic, several years before the development of any government prevention programmes, and involved large-scale educational campaigns which all mineworkers were required to attend, as well as attempts to distribute condoms. These experiences, both positive and negative, have an important contribution to make when considering future policies for dealing with HIV/AIDS.

At the Conference, the mining companies' perspective was presented by Ms. Jenny Crisp, AIDS Education Advisor to Anglo American. She described how HIV/AIDS was affecting the sector and why the lessons learnt by mining companies were crucial in addressing HIV/AIDS at a regional multisectoral level:

“HIV/AIDS is already having an impact on mining companies, in particular in three main areas: increased costs to health care systems and benefit schemes and reduced productivity. The HIV/AIDS epidemic is accompanied by a TB epidemic, and together these are increasing the burden on clinics,

hospitals and medical aid schemes within the industry. The cost of providing health care to mine employees is rising. The majority of mining companies provide pension and life assurance benefits to their employees. In Zambia and South Africa, mineworkers who develop lung damage as a result of TB are entitled to financial compensation. HIV/AIDS has resulted in an increase in claims made to companies' benefit schemes. Productivity has been affected in a number of ways. Increasing numbers of employees are becoming sick or taking leave to look after family members or to attend funerals. As employees with HIV/AIDS die or are retired because of ill-health, they are replaced by less experienced workers. New employees have to be recruited and then trained. This decrease in productivity is accompanied by an increase in costs."

In view of these problems, which are likely to increase as the epidemic progresses, Ms. Crisp highlighted how:

"The mining industry has to respond to HIV/AIDS in the same way as it responds to any other threat to its continued existence. It has to find a way to remain in business."

It has therefore become necessary for the companies to find ways to deal with the epidemic and to control costs. Different companies have responded in different ways. Some have encouraged employees to take ill-health retirement or retrenchment packages, others have established home-based care programmes for sick employees, and others have changed the structure of their benefit schemes. In order to cope with absenteeism and labour losses, companies have created pool gangs, trained employees in a variety of skills (multi-skilling), trained additional personnel for key positions, recruited expatriate skills or mechanised some of their operations. In countries where economic restructuring is in progress, downsizing of mining companies is taking place and this has to some extent cushioned the impact of the epidemic on the labour force of those companies. The majority of companies have developed policies relating to the employment of people who are HIV positive and there is a consensus that, as far as possible, HIV/AIDS should be treated in the same way as any other life-threatening disease.

According to Ms. Crisp, the response of the mining companies has to a large extent focused on the employee and his immediate environment, the workplace. She pointed out, however, that:

"HIV/AIDS is not confined to the workplace and, if workplace initiatives are to be effective, they must be supported by similar action in the communities with which mineworkers interact. Community initiatives must in turn be supported at national and regional level, and interventions at all levels must be openly and actively supported by the leadership at those levels."

3.2.2 The mineworkers' perspective

Activities by the unions in the mining sector have concentrated on negotiating labour agreements around HIV-related human rights issues, to ensure that:

- there is no discrimination against people who are HIV positive; and
- there is involvement in prevention activities.

In addition, efforts are being made by the unions to develop regional positions on HIV/AIDS, and there have been a series of meetings focusing on the establishment of regional mining codes. Thus, the Southern African Miners' Federation meeting in August 1996 produced a health manifesto, as part of a concerted move amongst union leaders to consider the issues related to HIV/AIDS in a way that explicitly acknowledges the social context of disease.

Union actions aimed at addressing effectively the socio-economic context of HIV/AIDS in the mines are, however, still the exception. One example of work to address the wider context is that of the South African National Union of Mineworkers on the issue of housing for miners. In 1994, the Union signed a framework document with the Chamber of Mines, relating to the establishment of bipartite (unions and management) housing forums at the mining house as well as at the mine level to look at the possibility of increasing the supply of family housing for workers. This has had a limited result in the establishment of social compacts with some mining houses and involving key players such as provincial government structures, the unions, management and developers.

Both mine managements and mineworkers unions have attempted to implement HIV awareness programmes and have realised that these cannot work without effective action at the broader national and regional levels. This would suggest that there is ample scope for the development of joint regional actions in the mining sector along the lines of the tripartite approach (involving governments and the region's social partners) adopted in the development of the regional code for employment on HIV/AIDS.

An urgent first step in this process involves gathering information about the contextual factors which contribute to the vulnerability of mineworkers. It is particularly important in relation to migrant workers that such information is gathered and analysed at a regional level. Isolated efforts in any one country are likely to have minimal value given the complex social movements and interactions of mineworkers across national and regional borders.

3.2.3 Conclusions

On the basis of the presentations of the keynote speakers and the discussions in the workshop, participants identified a number of specific regional measures for action in the mining sector. These included:

1. The development of regional protocols for the training of health workers and for the treatment of HIV/AIDS, STDs and TB.
2. Research into the particular factors which increase the vulnerability of mineworkers to HIV infection.

These recommendations were adopted by the Conference and are included in the SADC Plan of Action on HIV/AIDS.

3.3 Tourism and Transitory Migration

Inter-country and international mobility of people is a vital part of the growth and viability of the Southern African region, and at present considerable attention is being paid by the SADC to questions related to tourism as an industry.

Regional efforts to encourage the free movement of people, to improve transport infrastructures and to harmonise regional transport and communications form an important backdrop to deliberations on HIV/AIDS within the SADC Sector on Tourism. There is an interest in particular in policies and actions aimed at reducing the vulnerability of travellers, including those travelling for leisure or business and low-income travellers such as petty traders and truck drivers, and those involved in or related to the tourist industry in the region.

3.3.1 Tourism promotion

The newly appointed co-ordinator for the SADC Tourism Sector, Mr. Govinda, introduced the topic of HIV/AIDS in relation to the sector. His colleague and Principal Assistant Secretary in the Ministry of Tourism of Mauritius, Mr. Fowdur, speaking from a tourism promotion perspective, highlighted the importance of the tourism industry, a growth sector, to SADC and emphasised the need for a regional approach.

Last year, the Southern African region welcomed nearly 10 million visitors, the majority from the region itself. The SADC region recorded a 50% growth in tourism earnings between 1990 to 1993. Europe is the second most important source of tourists for the SADC region, followed by North America and Asia. However, Mr. Fowdur warned, HIV/AIDS poses a potential threat to the further development of the tourism sector:

“As we know, tourists are very demanding and are always looking for better destinations. They will therefore not come to countries identified or stigmatised as having high levels of HIV/AIDS, even if they are not 'sex tourists', because of concerns about the safety of hospitals, blood supplies, dentists and emergency medical services. We need, therefore, jointly as a regional team to consider what immediate measures are required to ensure that the tourism industry continues to expand.”

Mr. Fowdur also argued that, in particular:

“There is an urgent need for all countries in the region to pool their resources together, with a view to establishing a regional information and education programme for all those involved in tourism. This is because around 10% of our work force are directly and indirectly employed in the tourism industry, including those working in the transport sectors like drivers, helpers and guides or in the handicraft sector like artisans, hawkers and pedlars. In addition, there are those working in hotels, casinos, duty free shops, discos, and as singers, musicians and dancers.”

Specifically with regard to the tourism sector as an employer, Mr. Fowdur suggested that introducing and monitoring legislation to ensure fair employment practices and wages can also help to prevent low paid workers supplementing their wages through commercial sex.

Another argument for a regional approach is the increasing trend for tour operators to sell joint tourism destinations to different countries in Southern Africa, which means that the adverse effect in one country of the region will potentially affect the others. It also opens up the possibility of regional actions concerning information for tourists. Finally, Mr. Fowdur highlighted how:

“Assistance from international organisations to finance regional projects could help bring about concerted action so that we can develop policies on prevention of HIV/AIDS, agree on relevant studies to be undertaken together, exchange information for the benefit of SADC countries, and set up a proper mechanism for harmonisation of combined efforts.”

3.3.2 Low income travellers

Issues related to tourists visiting several destinations relate mainly to overseas or 'better off' visitors. However, 80% of all travel covered by tourism and transitory migration is intra-regional, mostly by people who are in informal or self-employment, and who have low incomes. They often have to pass across borders at night and may be subject to harassment in a variety of ways while doing so.

The perspective of those low income travellers was presented by Mr. T. Ncholu, Deputy Principal Secretary and SADC National Contact Point from Lesotho. Mr. Ncholu was until recently responsible for the SADC Tourism Sector which introduced the concerns of low income travellers onto the SADC agenda, following an intra-regional study of this large section of the region's travellers.

Mr. Ncholu explained how low income travellers are mainly:

“Petty traders (hawkers) and truck drivers. They use what we consider as tourist facilities, transport, hostels, hotels and restaurants but, because their income is erratic and depends on how much they sell, they resort to what will cost them the least.”

He pointed out that this often means using accommodation situated in an unattractive part of a city, with low cost, low quality services and minimal if any security. In the SADC region, most petty traders are women and insecure accommodation increases their vulnerability to abuse, commonly rape.

SADC needs to address this problem of the vulnerability of low income travellers. Possible interventions at a regional level include the role of the National Tourism Authorities in the SADC countries who have the authority to issue licences required for, for example, a hotelier to set up business, and set standards and issue certificates, and could offer assistance to run such businesses to acceptable standards. At a regional level this collaborative effort by both NTAs and tourism co-ordinating units could, for example, ensure the harmonisation of standards and that one country's efforts are not undermined by non-performance of a neighbour.

In addition, Mr. Ncholu, emphasised that:

“It is the duty of the NTAs in the region to inform the travellers about the dangers that go with their business, especially about HIV/AIDS.”

3.3.3 Conclusions

Following discussions on the perspectives and issues presented above, the workshop identified a number of action points at regional and national level in the tourism sector. These included:

1. Standardisation and co-ordinated regional dissemination of health information for travellers.
2. Regional co-operation in the education and training of tourism sector workers.
3. A review of working conditions in the tourism industry.

These were adopted by the Conference are included in the SADC Plan of Action on HIV/AIDS.

3.4 Education and HIV

The impact of the HIV/AIDS pandemic in SADC is being particularly felt in the area of human resources. For the education sector this impact has added to the burden of existing problems of recruitment and of staff attrition due to poor pay and working conditions. In some areas of the region there have been large losses of teachers due to HIV/AIDS and many teachers are taking in orphans as well as sick relatives.

There is already a growing 'de-scholarisation'—loss or non-enrolment of children—in the region. This is being exacerbated by HIV/AIDS, either because children are orphaned, or because families have become too poor to send children to school as a result of AIDS in the family, or because children have to stay home to care for the sick.

3.4.1 The perspective of educationists

Speaking from the perspective of educationists, Dr. Sheila Tlou, Senior Lecturer at the University of Botswana, argued that HIV/AIDS poses a challenge to education, both as a sector providing employment and as a topic for education strategies.

According to Dr. Tlou, although HIV/AIDS and education has been much discussed in Southern Africa, there has been very little practical change at the regional level. She noted how:

“In the protocol of the SADC Human Resource Development Sector proposal of 1996, there is no mention of HIV/AIDS and its impact on education and training. One would expect it to be a priority area, ranking somewhere above or next to eradication of illiteracy”

At the national level, some SADC member states do have policies related to AIDS in the Education Sector. In Botswana and Swaziland, for example, Family Life Education (FLE) has been introduced as a preventative strategy, especially in the case of teenage pregnancy. But, according to Dr. Tlou, this attempt at introducing FLE has:

“Not been successful because it is an optional subject integrated into other subjects.”

And:

“Even where well planned and executed programmes exist, such as in Zimbabwe, there are legal blocks in AIDS prevention. For example, the policy of not providing condoms to people under the age of 18 years is a major constraint to HIV/AIDS prevention for teenagers.”

This situation calls for regional efforts to ensure an integrated and co-ordinated approach to education policies, as well as efforts to ensure that these policies are supported at a multisectoral level throughout the region.

In addressing the question of how to achieve regional co-ordination and integration in relation to education in Southern Africa, Dr. Tlou suggested that:

- The SADC Education Sector needs to think not only about how HIV/AIDS fits into existing practices in education, but how current practices in education can be changed to deal with the problem of HIV/AIDS.
- SADC should promote and establish two or more regional Centres of Specialisation or Excellence to provide efficient and effective education, training and research on HIV/AIDS and its impact on education. These Centres could be based on strengthening existing institutions.
- SADC could devise standard ways of imparting information related to HIV/AIDS throughout the education curriculum. For example, Zimbabwe has a primary school (Std. 1-7) curriculum that covers life skills, gender issues, sex education and emphasises empowerment of the individual to make informed decisions concerning sex. Such a curriculum should be standardised, adapted and translated as necessary for use in other SADC countries.
- SADC should develop a regional policy to keep AIDS orphans in school while giving financial support to their carers. At present, national practices with regard to school fees vary, forcing some AIDS orphans to leave school early and seek low skill employment.
- SADC member states need to revisit the whole issue of human resource planning. Any planning for replenishment of skills will have to take into account the attrition of teachers due to AIDS deaths as well as the “brain drain” to other countries.

Dr. Tlou also highlighted free movement of students and teachers as they seek better educational opportunities in other countries as an issue that needs the solidarity of all member countries. As in other sectors, this includes questions regarding testing for HIV and health benefits. A SADC policy which ensures non-discrimination needs to be developed.

Overall, Dr. Tlou concluded that, at present, policy analysis and research are weak, resulting in inappropriate programmes. In this context, clear benefits could be derived from developing a regional approach.

3.4.2 The young people's perspective

The issues of sexual interaction and education are far from new. Problems of unwanted pregnancy, school drop-outs, unwanted early marriage, unwanted sexual interaction in schools, and abuse of power by teachers have all caused considerable problems in the educational system. The high political profile of AIDS has helped reinvigorate debates about these issues.

This was highlighted by the intervention during the Conference of Ms. Naomi Chimimba from Zambia who, as a 16 year old and a member of an anti-AIDS club, spoke from the perspective of youth in Southern Africa. She left little doubt about the need to address these problems in an open and in a participatory manner, pointing out how:

“Adults today pressurise young people to have sex with them because they think youth are always uninfected with HIV/AIDS. For this reason, concerned youths like myself would like to see programmes to help adults relate to youth positively. Another reason why we young people think adults need these programmes is because they have failed to talk to their children about sex and AIDS education.”

“These programmes will help them realise what damage they can do to their children by letting them grow up with no knowledge of casual sex and its consequences. Young people need to realise that both sexes are responsible for the consequences of casual sex including HIV infection. Most of the time the girls are blamed and labelled as irresponsible for the consequences because it is thought that protection against unwanted pregnancies and STDs is their responsibility. Sex education should be part of our curriculum, taught in both primary and secondary schools as children become aware of sex and the sexual development of their bodies at a young age.”

Such openness may do most to induce real change. For example, there is now much greater acknowledgement by the Churches in the region that sex education should be promoted, and several programmes have been initiated.

Young people have also played a crucial role in addressing HIV in other ways. More and more children are involved in care at home, increasingly care of people with AIDS. Simple practical advice to children has helped not only in the direct care of AIDS patients, but also to reduce discrimination. Malawi is one of the countries of the region that has particular experience in this area.

As Ms. Chimimba explained:

“To achieve the aim of saving youth from the AIDS epidemic, youth themselves have to get involved in the fight against AIDS.”

In her experience in Zambia, anti-AIDS projects have helped as they have worked very hard to involve all schools in HIV/AIDS educational programmes and have supported outreach programmes to other youth who are in and out of school.

An important regional objective should be to empower youth to inform themselves and each other about HIV/AIDS and related issues and to address their need for knowledge. Ms. Chimimba suggested that this might take the form of information centres throughout the region, accessible to interested youths in all areas, with clubs for out of school youths being assisted to form outreach programmes.

As Ms. Chimimba said about herself:

“I want to learn more about life skills now than ever before. But most of all, I would like to educate other young people who are not yet infected by HIV/AIDS.”

3.4.3 Conclusions

Following the introduction by the two keynote speakers, the workshop discussions focused on identifying practical strategies to address the concerns raised. A comprehensive list of recommendations and proposals for action were formulated which included:

1. The development of a regional network of anti-AIDS clubs.
2. The establishment of a regional model for curriculum development for life skills
3. Exchange at a regional level of educational materials.

These were adopted by the Conference and are included in the SADC Plan of Action on HIV/AIDS.

3.5 Medical Drugs and HIV/AIDS

Although there is much that can be done to reduce the susceptibility of people to HIV infection, and their vulnerability if they become infected, through social and public health measures, many problems remain in meeting the medical drug needs of the large numbers of people in the region who have acquired, or will be acquiring, the infection.

Treatment is important not only for the lives of the individual concerned, but also because effective therapy prolongs their ability to be productive and to support their family.

In terms of prevention, Sexually Transmitted Infections (STIs) and Reproductive Tract Infections (RTIs) have been shown to increase people's susceptibility to HIV infection. Recent work has proven that effective therapy with drugs for these infections can reduce the rate of HIV infection significantly.

The drugs required to treat the illnesses that make people susceptible to HIV infection (STIs, RTIs) as well as those needed to treat or alleviate the most common illnesses suffered by people with HIV/AIDS (pneumonia, diarrhoea, fungal infections) are not new. But, in Southern Africa the main problem is that they are not widely available or affordable. Related difficulties include lack of funding and of regional manufacturing, inadequate procurement, distribution and quality assurance, and poor knowledge about the proper use of drugs. At present there is also considerable variation between SADC countries in terms of drug policies as well as availability.

These issues, which were highlighted by Dr Barreto, Head of the National AIDS Programme in Mozambique, in his opening remarks at the introduction to the Conference, indicate that any successful regional policy on medical drugs and HIV/AIDS will also require the establishment of regional drugs policies in general. Mr. Barreto concluded that:

“A lot could be gained by the region through harmonisation of and collaboration in drug policies in Southern Africa.”

However, he also pointed out that there is already a starting point for such a regional policy in the existing National Drug Policies:

“Essential Drugs Programmes have been used widely in a number of countries to improve access to affordable, appropriate drugs. Most countries in the region have such policies and programmes in place. Although drug policies are national, they are all based on similar principles and have used essential drugs lists to ensure that adequate quantities of the required drugs for the conditions presenting by the majority of patients in a country are procured, distributed and used properly at appropriate levels of care.”

3.5.1 The public health care perspective

This point was supported by Dr. Kipuyo from the Ministry of Health in Tanzania, speaking from the perspective of the public health care sector. On the basis of his experiences in Tanzania, Dr. Kipuyo emphasised that:

“The benefits of regional involvement, including co-operation and collaboration on issues related to medical drugs, are pertinent. The formulation of a Regional SADC drug policy that will define and spell out the direction for future drugs availability in countries within the region would be an important initiative to achieve this co-operation.”

Mr. Kipuyo also stated that any regional essential drugs policy should “tackle the availability of anti-retroviral drugs” as well as ensuring “the availability for drugs for the treatment of STD and TB.”

However, this policy would only be one of the areas for regional co-operation and would require actions in other fields in order to be effective. As summarised by Mr. Kipuyo, the region also needs to examine ways to co-operate on:

- production of drugs;
- research and drug development;
- joint procurement of raw materials and finished products;
- training and manpower;
- transfer of technology;
- evaluation of drugs;
- the use of regional facilities, particularly in the field of quality assurance;
- regional drug research activities; and
- a forum for the exchange for research results based on drug trials.

It was also suggested that “the establishment of a central co-ordinating committee on medical drugs within the region is important as a pre-requisite for effective co-operation.”

3.5.2 The perspective of the pharmaceutical companies

As key actors in improving and ensuring the availability of medical drugs, the pharmaceutical companies have an important role to play, in particular at a regional level. This was the view presented to the Conference by Mr. Celestine Kumire, Manager of Pharmanova in Zimbabwe, who spoke from the perspective of pharmaceutical companies in Southern Africa.

Apart from the local manufacture of drugs, the manufacturing industry can potentially contribute to the availability of medical drugs in a variety of ways. According to Mr. Kumire, this contribution, at a regional level, could include:

- the production of drugs that are off patent;
- the establishment or strengthening of Drug Quality Control Facilities;
- liaison with Research Institutions (University Specialist Services, Standards Association); and
- encouragement of local industry to produce simple raw material inputs (such as starch, essential oils, lactose and liquid glucose) and achieving economies of scale in raw material procurement.

However, the local manufacturing industry in the region is limited and faces a number of serious constraints including:

"The need to import raw materials; high investment in capital equipment procurement; limited markets; aid tied to supply from donor countries, and subsidies offered to some competitors on tenders."

Consequently, at present, the majority of the required drugs are not manufactured locally but are supplied by multinational manufacturers. Only three countries in the region have manufacturing capabilities, South Africa, which has a well-developed pharmaceutical industry and a large export trade in pharmaceuticals, Zimbabwe, with a much smaller number of companies, smaller market and lower output, and Lesotho. In theory, South Africa and Zimbabwe could be the source of many of the drugs which are needed, but the sophisticated technical and regulatory requirements for drug manufacturing are such that large capital investment is needed before a single dosage form can be produced.

The situation could, however, be improved through a number of actions and policies aimed at encouraging the production and use of locally manufactured medical drugs. For measures to be effective they would need a high level of regional co-ordination and commitment in order to ensure economies of scale and coherent actions.

During his presentation, Mr. Kumire highlighted many areas for possible regional action, including:

- The establishment or strengthening of drug quality control facilities at a regional level. Pharmaceutical manufacturers are statutorily responsible for the quality of their products. The problem with this is that to be cost-effective in quality control, there must be sufficient scale of manufacture to cover these costs. The organisation of an efficient information exchange mechanism on the quality of drugs within the region should be regarded as a priority.
- Standardisation of treatment guidelines for HIV/AIDS related diseases and the inclusion of HIV/AIDS related drugs in essential drugs lists. Treatment guidelines have not yet been developed to an appreciable extent in order to standardise the approach to treatment of HIV/AIDS-related diseases in the region. A common approach would ensure the availability of drugs in health centres for the treatment of HIV/AIDS related illnesses, notwithstanding the budgetary constraints referred to above. The drugs

could then be procured in larger quantities at a time, thereby reducing unit costs.

Other actions suggested by Mr. Kumire related specifically to the situation for local manufacturers and included:

- practical promotion of intra-regional trade in pharmaceuticals;
- preferential treatment of regional manufacturers on tenders; and
- promotion of local manufacture of pharmaceutical excipients.

3.5.3 Conclusions

The presentations of the perspectives of the public health care sector and the region's pharmaceutical industry provided the workshop with an excellent starting point from which to identify possible action at a regional level and regional actions to support national efforts. These included:

1. The establishment of a regional essential drugs policy and guidelines on training of health care workers.
2. The development of a regionally co-ordinated approach to drug procurement and production.
3. Research into current and projected drug requirements in the region.

These recommendations were adopted by the Conference and are included in the SADC Plan of Action on HIV/AIDS.

3.6 Data and HIV/AIDS

In his introductory remarks to the workshop, Mr. Eduardo Siteo, Deputy SADC Sector Co-ordinator for Culture and Information, referred to the conclusions of the preceding workshops, highlighting how it was:

“Clear that the collection, dissemination and exchange of data related to HIV/AIDS ... is essential for regional policy co-ordination and harmonisation as well as for the development of integrated strategies.”

According to Mr. Siteo, the conference outcomes should at a minimum require the inclusion of information on HIV/AIDS within existing sectoral databases and the linking up of data collection initiatives on HIV/AIDS in the Southern African region.

3.6.1 The use of data in regional policy

The Chief Statistician for the SADC Statistics Committee, Mr. Elliott Odirile, concurred with this view. Speaking about perspectives on the use of data in policy making, Mr. Odirile explained that the:

“SADC is in a process of developing a decentralised regional database (Regional Information Technology Centre—RITC), with the Secretariat responsible for macro data, while sectors are responsible for micro data. The networks established will also ensure that data is collected, co-ordinated and disseminated as part of the day-to-day operations in member states. In order to achieve this, the SADC Statistics Committee was established and is

composed of Directors of National Statistical Offices (NSOs), who produce statistics in most member states. Whilst acknowledging the fact that there are other institutions in member states that produce statistics, the NSOs will be the focal points for statistics for regional integration. Each sector co-ordinating unit, as established by SADC, will be responsible for sectoral data including Health.”

Mr. Odirile emphasised the importance of ensuring that information systems at both national and regional level are operational, so that policy makers can easily access the necessary data. This is a challenge given the resource constraints faced by statistical offices, and in this context the major question to be addressed is:

“What can be done to assist in the development of both national and regional offices, since most of the existing health management information systems are poorly organised, unreliable, out of date, and not user friendly.”

Data on seroprevalence levels is generally collected by the National AIDS Co-ordination Programmes of the various SADC countries. These are normally required to update their seroprevalence databases every three months, but find it difficult to do so due to lack of funding. There is little formal co-ordination between these national bodies, thus data on regional trends are most easily obtained from databases outside the region.

In this context Mr. Odirile noted that:

“Most of the documents presented at this Conference have quoted non-SADC information systems.”

A major source of data for AIDS service groups in the region are the six-monthly HIV seroprevalence country updates compiled by the Health Studies Branch of the US Bureau of the Census, funded by the US Agency for International Development (USAID).

3.6.2 Methodology in data collection

The question of methodology in data collection regarding HIV/AIDS was addressed by Dr. Peter Way from the US Bureau of the Census. Speaking about perspectives on data collection, Dr. Way presented an extensive overview of models, survey and impact analysis. Through this he clearly highlighted the difficulties with the collection of data on HIV/AIDS in general. He concluded that in order to understand HIV/AIDS in its proper socio-economic and cultural context and to be able to deal with HIV/AIDS as an encompassing development issue, data of various types is essential for understanding the epidemic and for planning programmes and specifically that:

- there is a need to integrate data collection with programme implementation;
- data collection should be done with a purpose and a plan; and
- there is a need to balance the level of effort put in to data collection with the level of effort put in to implementation of programmes.

Within the SADC, the work of the Food Security Unit provides a useful model for how information can be effectively collected and disseminated. The main value of the Unit's work has been to standardise the collection of national data on food security through the Regional Early Warning Unit, and to effectively package and disseminate

it to member states and interested parties through regular, readable information bulletins. Professionals from a number of disciplines (including agricultural economics, agricultural statistics, agro-meteorology and nutrition) are involved in analysing and interpreting the early warning system data received from various sources. Member states are now looking to the SADC Food Security Unit for more enhanced support for policy analysis. To meet the needs of the region, a Regional Food Security and Policy Analysis and Research Network is currently being set up. A similar focal point for HIV/AIDS at a regional level would allow for data on women attending antenatal clinics, TB and STD patients to be better related to the data on HIV/AIDS in the overall population. More meaningful co-ordination of activities would reduce duplication and perhaps free up funds for investment in much needed activities, such as multifactoral development data collection and analysis.

It was also recognised that any effective research and information networking strategy should seek to include a wide range of public, private and NGO institutions throughout the Southern African region.

3.6.3 Conclusions

In the various workshops during the conference as well as in the workshop on data, many suggestions and recommendations were made for regional action on data collection. Some of these may overlap, whilst others are quite specific. The discussions in the workshop on data centred on prioritising a number of these possible actions at a regional level including:

1. Joint research Programmes:

Mobilising multidisciplinary teams of experts drawn from various countries in the region and involving university departments, policy institutes and NGOs, with a view to planning, designing and implementing relevant research programmes.

2. Joint data:

In addition to the linking up of the National AIDS Programmes referred to above, bring NGOs currently involved in HIV/AIDS data collection into the network and link them to other research and policy organisations, in order to develop flexible databases in support of individual SADC sectors (such as mining and tourism) that require this data. This recommendation is linked to earlier recommendations on the development of multisectoral strategies for which this data is necessary.

3. Joint monitoring and evaluation of programmes:

The sharing of monitoring and evaluation activities in order to ensure the systematic improvement of HIV/AIDS policy making and programme implementation.

These recommendation were adopted by the Conference and are included in the SADC Plan of Action on HIV/AIDS.

SECTION 4

Background Studies No 1

Employment and Workplace Issues

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1. Context

1.1 Introduction

This paper presents an overview of employment and workplace issues arising from the HIV/AIDS epidemic in Southern Africa. It discusses the impact of HIV/AIDS on workers and productivity, reviews the costs of the epidemic in relation to a range of employment issues, and provides an overview of the legal context of AIDS and employment. The paper also reviews what has been done to date and what remains to be done, concluding with a summary of the issues which policy makers need to address. The paper takes the position that the employment sector must go beyond tackling HIV/AIDS to address the causes and patterns of preventable ill health in the broadest sense.

1.2 The employment context

Southern Africa faces many challenges in employment and production, having inherited economies with skewed wealth distribution, monopoly ownership, a small entrepreneurial base, and high unemployment. There is a high level of dependency on formal sector earnings for basic needs and inputs to the informal sector and to peasant farming, but formal sector jobs are fewer and wages have lost value. Domestic producers face rapid liberalisation, poor access to credit, and high interest rates. Competition and cheap labour have contributed to declining real incomes, and eroded fragile social security and industrial relations systems. However, the region also has great potential for growth because of its rich natural resources, educated labour and investment in infrastructure, and since the end of apartheid and military conflict.

Achieving full employment is the greatest challenge faced by the region—in 1994 the World Bank estimated labour participation rates to vary from 32% to 54%—and unemployment has been increased by drought, and the effects of structural adjustment. A large proportion of Southern Africans work in the insecure, poorly paid and capitalised informal sector.

1.3 HIV/AIDS and other health problems in the productive age groups

Southern African countries are amongst those most affected by the epidemic, but HIV/AIDS is emerging in a region where there are already high levels of preventable death and illness. The adult working population has for decades suffered from a range of diseases that undermine productivity and well-being, including malaria, tuberculosis, sexually transmitted diseases, and from occupational illness and injury.

Work-related injuries continue to rise in the region. In Zimbabwe, for example, reported statistics indicate that an average of one worker is killed and 70 injured

every working day, and there is significant under-reporting of the real level of injury and illness due to work (Loewenson et al 1994).

After trauma, tuberculosis is the largest cause of death in miners in South Africa, with a mortality rate of 25 per 100,000 in 1993 and an industry-wide incidence in the same year of one in a hundred (Chamber of Mines 1994). HIV enhances the spread of tuberculosis, but other factors such as silicosis, working conditions, poor nutrition and poor health are also factors (SAMF/OATUU/ERU 1996; Williams and Campbell 1995).

Ill health in working people has been masked by the relatively easy substitution of cheap labour and low levels of efficiency of production, but is likely to be of increasing concern as demand grows for greater efficiency and skilled labour, and as AIDS increases health costs.

2. Production and the risk of HIV/AIDS

Before exploring the impact of HIV/AIDS on the employment sector, it is useful to consider how production systems and enterprises may themselves increase or reduce the susceptibility of workers to HIV infection¹. HIV spread is associated with biological factors, sexual behaviour, underlying social and economic circumstances and the macro-economic environment. Some of the major determinants of HIV transmission are shown in Figure 1.

Although it is difficult to prove associations between health and economic development, the consistency between certain economic indicators and levels of HIV infection suggest that production systems that enhance income equality (and redistribute income towards women for example) can have a positive impact on AIDS. Those that increase income inequality, for example between men and women, or that undermine family stability, such as single migrant labour employment, have a negative impact. The current liberalisation and restructuring of production, with commensurate shifts towards less secure employment and greater income inequality, may therefore contribute to an environment favourable to the spread of HIV.

Southern Africa has very high levels of migration and movement of people for economic reasons. The paper on mining highlights the links between migration and the spread of HIV. Trade, commercial transport routes and tourism are all associated with a high incidence of HIV, with transport centres such as Francistown experiencing higher rates of HIV than other urban centres in Botswana from an early stage. Rural to urban migration is also a feature of the economic structure, with urban employment closely linked to rural production through remittances, and sexual interaction between communities is a major source of HIV transmission in the region.

Although these conditions may not be the responsibility of individual enterprises, their actions and those of the governments that regulate them can exacerbate or ameliorate the situation. For example, transport companies that accommodate their employees adequately and equip them with information and the means to prevent transmission reduce the HIV risks of occupational mobility. Conversely, government regulations that make drivers leave their trucks at borders, forcing them to seek alternative accommodation, increase the risk.

Identifying the environments and factors that increase HIV risk are therefore clearly important for prevention. However, most government and company efforts to date have focused on the individual, rather than the social and economic factors that increase susceptibility, and on care rather than prevention. In 1992, in the early stages of the epidemic, developing countries spent US\$340 million on care compared to US\$90 million on prevention (Foster 1994).

FIGURE 1: FACTORS IN SUSCEPTIBILITY TO HIV

1. BIOMEDICAL FACTORS

- Virus type
- Viral load (disease stage)
- Gender and Age of the person
- HIV prevalence in the community from which sexual partners are drawn
- Presence of STIs (especially chancroid and genital ulcers)
- Male circumcision
- Presence of tuberculosis

2. SEXUAL BEHAVIOUR FACTORS

- Type of intercourse (e.g.: anal, during menses, oral etc.)
- Use of Condoms
- Use of spermicides or vaginal desiccants
- Communication on and knowledge of partners HIV status
- Extent of alcohol consumption
- Communication about sexual practices
- Number of sexual partners/rate of partner change
- Extent of concurrent partners

3. SOCIAL AND ECONOMIC FACTORS

- Perceived risks of HIV, knowledge and information on HIV/AIDS
- Gender relations and communication on sexual practices
- Cost, availability of and attitudes towards condom use
- Female employment, status, incomes, roles
- Income inequality
- Labour migration and mobility, trade related movements
- Polygamy and attitudes towards multiple sexual partners
- Urbanisation, education, overcrowding, poor diet
- Refugee and military movements
- Access to, cost of health (STI, TB, other) services, social/legal norms on STI management

4. MACRO-ECONOMIC FACTORS

- National wealth, income distribution, employment levels
- Budget allocations to and infrastructures for health, human resource development, housing etc.,
- Rural - urban integration, trade and transport infrastructures and systems
- Military/political crises

Source: Buve et al, 1995; Loewenson/OATUU HSEP 1996

3. The costs of ill health and HIV/AIDS

The impact of HIV/AIDS is most commonly discussed in economic terms, and this section discusses possible impacts on labour, insurance, productivity and social security. Economic impact is considered likely in terms of a reduction in labour supply, both quality and quantity, and an increase in demand over income resulting in falling savings (see Figure 2). The extent of the impact depends on the strength or weakness of the labour supply and savings in a particular country.

HIV/AIDS also has high social and psychological costs, for example in terms of demoralisation of workers as they lose colleagues, concerns among health workers about occupational risks of HIV transmission, or stress among women caring for the sick and trying to maintain family income. These social and psychological burdens affect those who are most vulnerable: women, children and communities where insecurity is already high.

3.1 The impact on labour

In some places, HIV/AIDS will probably result in a further decline in the quantity and quality of labour, as skilled and experienced personnel are lost. ILO estimates that in Tanzania the labour force will shrink by 20% by 2010 because of AIDS and the mean age of workers will fall from 32 to 28, leading to employment of younger, less experienced workers (ILO 1995). The impact of skills losses will be greater than that of total labour losses, particularly for skills that are less easily substituted through the labour market. Some studies on the impact of HIV/AIDS on labour are shown in Table 1.

Experience in countries where the epidemic is more advanced suggests that the impact of loss of skilled labour is not immediate but results in a steady increase in breakdowns, accidents and delays that will undermine the output of the economy. As skills become short, competition for and the costs of skilled labour will increase, widening income differentials, especially if lower paid workers receive less to keep labour costs constant. Shifting the cost onto lower paid workers will have its own negative impact on incomes and consumption.

Management of illness and lost work time are also a significant concern. A study of firms in Zambia found that, as the epidemic progressed, there were longer periods of absenteeism from those lasting between a day and a week to periods lasting between a week and a month (ILO 1995b). Frequent illness was noted to be a serious impediment to normal running of businesses. Lost work time does not only concern those with HIV/AIDS. Managers and employees also take time off to attend funerals or to care for family members who are ill. A sample of ten firms in Botswana all indicated that they experienced high rates of absenteeism due to sickness, and one indicated that they use casual employees to replace those away on sick leave.

As one employer's representative noted: "Clinic visits and sick leave increase. When the latter is exhausted requests increase for lighter duties. When eventually replaced there is a learning curve when new recruits take over. Where poor medical discharge packages exist, terminally ill employees are reluctant to leave and supervisors allow

them to stay on even though they are unproductive. Morale suffers as employees worry about poor health or have to cover for colleagues who are underperforming or absent". (Gilbertson 1996).

Table 1: Regional data on HIV/AIDS impact on labour			
COUNTRY	SECTOR	YR	SECTORAL IMPACT
Kenya	Transport	1993	8% increase in labour costs, projected to rise to 16% within 6 years, mainly due to absenteeism, additional training costs, lost productivity due to funeral attendance and burial fees (Mainor/USAID 1996).
	Unspecified	1991	Estimated indirect costs (lost wages) in Kenya of 206 500 Sh per new adult AIDS case or 23 Kenya sh per capita GDP of 8700 Sh (Forsythe et al, 1991).
Zimbabwe	Unspecified	1994	Absenteeism and fatigue projected to be more costly than deaths (Ainsworth and Over 1994).
	Unspecified	1992	Industrialists training two people for each vacancy. Estimated 5-15 students needed for one experienced 50 year old to avoid the need to import expensive manpower (Whiteside et al 1992).
Zambia	Unspecified	1994	Fivefold rise in mortality, 86% in under 46 year olds leading to declining productivity and recruitment (Ainsworth and Over 1994).
	Mining	1992	In the Zambian mining sector skills lost faster than replacement strategies (68% HIV+ men in Copperbelt mining were professionals), leading to increased incidence of breakdowns, accidents, delays etc. (Hanson 1992).
	Banks	1992	30% HIV in some banks speculated to lead to labour shortage led closure of branches (Whiteside et al 1992).
	Unspecified	1995	Staff absenteeism found to be at 15% (1994); Mortality rose 1987-1993 from 0.25% to 1.83% (Whiteside 1995).
	Agriculture	1992/ 1993	Zambia sugar estates (22,000 residents) HIV infection rates estimated at 28%, higher than rural areas generally. AIDS responsible in 1991 for 75% of deaths, 70% of medical retirements and 62% of deaths 21-40 years. Man hours lost due to TB/AIDS accounted for 50% lost time, with funerals a major reason for absenteeism. Costs arose mainly from absenteeism, illness, additional employment of expatriates, staff medical costs, funerals, medical retirement, repatriation and loss of highly qualified personnel, such as engineers. Total costs were estimated at US\$ 473,198 in 1992/3.

COUNTRY	SECTOR	YR	SECTORAL IMPACT
Zambia (contd)	Agriculture: Nkambala Sugar Estate	1993	Employs 3,250 permanent and 1,400 seasonal workers, latter mainly women. Mortality rates projected to rise by 70% 1992-1996. Half the person hours lost were due to TB/HIV/AIDS, 2% of total work hours. HIV/AIDS costs were 1.9% total costs, projected to rise to 3.1% in 1996. No impact was noted on production in 1993 as work overtime used to compensate for deaths and absenteeism.
Swaziland	Civil service	1995	6 months paid and 6 months unpaid leave in the civil service leads to lost output and industrial relations tensions arise as posts remain unfilled or filled by acting positions (Whiteside et al 1994).
Malawi	Unspecified	1993	Average employment is 25.3 years, while HIV+ work for 9.7 years. Including loss of children productive years lost is 18.7 years, which discounted at a 5% discount rate gives 6.6 years value of lost work time. Average discounted life income lost due to AIDS is K10 500 (US\$ 2,386) or up to 7% GNP (Forsythe 1992)
Tanzania	Unspecified	1993	Mean age of the labour force estimated to fall in Tanzania from 32 years in 1985 to 28 years in 2020 (Cuddington 1993).
	Railways	1993	1.2% of workers lost due to AIDS in 1993

Source: Compiled in Loewenson / OATUU HSEP 1996. US\$ conversions using exchange rates of the date applicable.

3.2 The importance of training

Companies will need to replace lost skills and experience through recruitment and training. In a study of 68 employee deaths² in 18 firms in Zambia over 10 months in 1993, 63% of the deaths were in lower, middle and top management and 37% in general workers (ILO 1995). As the labour market becomes more competitive with a narrower skills base, training may be a more viable strategy than recruitment for higher skill jobs.

Many companies in the region are therefore increasing in-house training and broadening their skills base. Multi-skilling, surplus training, out-sourced training and industry level training are all possible options depending on the type of firm and job. Whatever approach is taken, investment in training must increase. In Zimbabwe, replacement costs of lost skills were conservatively estimated in 1993 to be an average of \$2,500 per worker. Applying this to the number of people with AIDS in the formal sector would mean an increase in training costs from US\$ 1 million in 1991 to US\$ 5 million in 2000 (Forgy 1993).

3.3 Impact on productivity

In theory, a decline in labour supply could lead to a decline in production and returns on investment in production, since labour inputs are very important in the region, given the relatively low levels of capital investment. Any impact would probably depend on the labour market. A reduction in urban skilled labour and a consequent contraction in production of manufactured goods may lead to an increase in the share of cheaper primary production (Kambou et al undated) over manufactured, value-added production, leading to a net loss in macro-economic terms.

Loss of skilled labour could also reduce the efficiency of infrastructure, for example power and communications, adding to business difficulties and costs (Gilbertson 1996; Loewenson and Kerkhoven 1995).

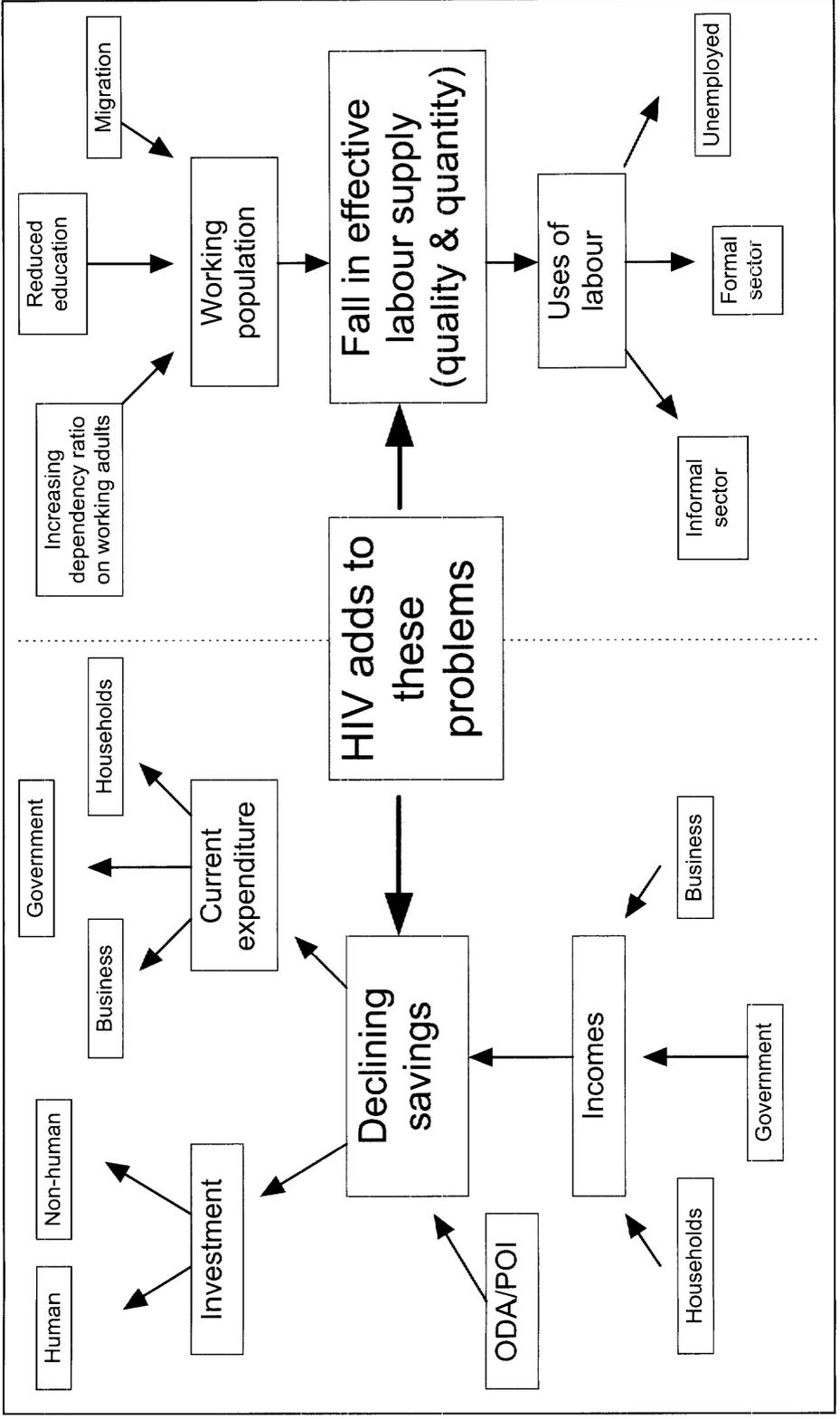
Despite the theoretical projections about these impacts, the reported effects on productivity are less clear. A World Bank assessment of the impact of AIDS on African firms in five countries, including one in Southern Africa, found little evidence of the impact on productivity in spite of increases in workforce mortality. In most countries, firms were able to replace labour or did not want to. In Zambia, by 1993, 78% of 18 surveyed firms reported that labour productivity had not been affected and that lower output was not attributable to AIDS. Only two firms thought that productivity losses would be a problem in future (Loewenson and Whiteside 1996; ILO 1995). The situation in the region is complicated by company and public sector adjustments, downsizing and retrenchment, and this staff attrition, because of its larger size, may hide the impact of AIDS.

On the other hand, there have been reports of breakdowns in production, poor planning, failure to meet delivery targets and reduced product quality due to losses in skills and experience in the labour force (Ching'ambo et al 1995; ILO 1995). It also appears that overtime working has increasingly been used to extend the productivity of existing labour. One large sugar plantation in the Zambian study quoted earlier (ILO 1995) noted that overtime work was used to compensate for deaths and absenteeism. While this may be a short-term response, as a longer-term measure overtime carries its own risks to workers' health and may increase injury and accidents.

3.4 Impact on savings, social security and insurance

Increased health expenditure at household, company and national levels is perhaps the most visible and direct cost of the epidemic, and as the productive age group that usually finances health care becomes a net consumer of services this will have a major impact on health costs.

FIGURE 2 ECONOMIC IMPACT OF HIV / AIDS



3.4.1 Costs of care

Analysis of the costs of health care is difficult, especially in the absence of detailed comparison with other spending (on health or other items). In direct terms, it is estimated that the cost of AIDS care is around US\$200 per person per year in SADC countries, and more than 20 times this amount in Europe and the USA. Estimates of the costs of institutional care in Africa vary widely, from US\$ 200 to US\$ 1,000 per person annually (Mainor/USAID 1996), but these costs are far greater than current public spending in Africa on health care at US\$ 5 per person a year (Ainsworth and Over 1994). AIDS treatment accounts for 27% of public health expenditure in Zimbabwe and 66% in Rwanda (World Bank 1995).

The costs to households are even higher, with studies showing that an average of 30-50% of annual household income is spent on health care in families with AIDS, decreasing to 24% for those covered by social security and increasing to 92% for those who are not (Hanson 1992).

Companies also face high costs. For example, INDENI Petroleum in Zambia spent 19 million kwacha on the costs of AIDS-related deaths and treatment when its profits for the same period were 16.4 million kwacha³ (ILO 1995). In companies where top management personnel have unlimited medical benefits, including treatment abroad, this can distort health spending on lower level employees.

Social security schemes reduce household pressures to meet the costs of AIDS. Such schemes also provided an organised form of medium- and longer-term savings when increased costs may reduce short-term savings. Social and health insurance and social security are therefore critical aspects of social and economic policies in the region.

Employee benefit schemes in the region are heavily oriented towards the 10% of people who reach the age of 60 and can claim pensions. Job insecurity and shorter life expectancy in lower income workers mean that they are unlikely to be represented among this 10%. AIDS may be a catalyst for shifting the emphasis so that the increased costs are met from the amounts put into pension awards currently given to a healthier and wealthier minority.

3.4.2 Insurance issues

The insurance sector, one of the first to assess the impact of AIDS on their operations⁴, has already implemented measures to deal with the impact.

The life and health insurance industry is not uniformly developed in the region. South Africa and Zimbabwe have the best developed systems, with 7 life insurance, 4 reinsurance and 24 health insurance firms in the latter (Chaora 1996). Even in Zimbabwe only 7% of the population is covered by medical aid, suggesting that there is probably much lower coverage in other countries in the region (Chaora 1996). With coverage this low, the bulk of the health costs of HIV/AIDS fall on the household or public sector budget. Death of the wage earner who is covered may deprive the rest of the family of cover, and if provision is not made for continuation of coverage after termination of employment, those who lose their jobs due to illness will cease to have cover at the time they need it most (Chaora 1996).

The picture for pensions and insured benefits is similar, with only workers' compensation common and relatively standard across the region. With the spread of HIV/AIDS, expanding the coverage of life and health insurance and social security has become an important policy issue. This could be achieved through bipartite negotiation at enterprise or sectoral level, tripartite review of available options at national level, and through regional co-operation and reciprocal arrangements to ensure an adequate standard of social security coverage across the region.

While expanding coverage is important for national savings and household security, the insurance sector faces problems that challenge its viability. Major sources of investment are being reduced by withdrawals due to death and illness, and AIDS has added substantially to the claims burden (Heywood 1996). The life and health insurance industry in Zimbabwe has reported that, due to rising mortality, claims are being made before adequate contributions have accumulated. The Zimbabwe Life Offices Association estimated that in the second quarter of 1995, AIDS-related death claims for Individual and Group Life Assurance represented 48% and 38% of claims respectively, with a total of Z\$11.62 million (US\$ 1million) paid out in definite AIDS claims (SAfAIDS 1995).

CIMAS, a private medical aid society in Zimbabwe with 400,000 beneficiaries report that, since 1990, Z\$ 31.493 million (US\$ 2.876 million) has been paid out, with an average direct cost per case of Z\$ 4,928 (US\$ 450), mostly incurred in the last two months of life through medical practitioner and hospitalisation costs (Chaora 1996). But, measures to protect schemes, such as pre-benefits testing, may reduce the number of people contributing and participating, including HIV negative people who do not want to be tested, thereby reducing overall savings.

Current issues faced by the medical insurance industry include which drug treatments to cover, how to reduce the costs of hospitalisation (home nursing care has been poorly utilised by beneficiaries), and how to address factors which are not covered but which have an impact on HIV incidence or progression (for example, TB and STD control, condom and information distribution). One recommendation is that medical aid societies give premium incentives for risk reducing or health promoting interventions (Evian 1994).

3.4.3 AIDS is still less costly than other health problems

Any analysis of the costs of health care in relation to HIV/AIDS needs to be undertaken in the context of the costs of other health problems. This comparative information is not always available, although it has been estimated that the cost per capita to medical aid is still highest for those aged over 55 years because of degenerative illnesses. And while the costs of AIDS care are high immediately prior to death, the overall costs are still relatively low, and the high cost of AIDS is related to the increased numbers of people making claims.

3.4.4 Practical joint proposals

The threats to health insurance and other forms of social security were reviewed in a tripartite workshop in Botswana in 1995. One medical aid firm noted that 90% of members are low and middle income earners. Delegates proposed that:

- pre-benefits HIV testing not be carried out and costs be dealt with in other ways;
- costs be covered by increasing premiums, increasing investment returns, reinsurance and restructuring of benefits;
- cost containment be achieved through increasing the risk pool by increasing membership, education of members on medical aid options, employer contributions to cover premium increases, use of in-house clinics and doctors at fixed rate costs, and promotion of generic drug expenditure;
- insurance firms develop schemes that allow participation by small enterprises;
- governments more rapidly introduce national social security schemes.

The increase in costs of employee benefits may cause employers to adopt more austere policies at a time when employees have greater needs for these benefits, creating conflict in industrial relations. Creating a positive climate for dealing with the costs of AIDS requires industrial relations skills and systems that are often undeveloped in Southern African workplaces.

3.5 Costs are not macro but micro

Macro-economic models of AIDS that have aggregated these various costs predict GDP losses of about 0-5% to 1% annually (Ainsworth and Over 1994). However, analysis of data for 51 countries at different stages of the epidemic suggest that HIV/AIDS has had a small and statistically insignificant impact on macro-economic indicators (Loewenson and Whiteside 1996), and a study of the direct and indirect costs in Kenya (Forsythe et al, 1991) found that impacts would be least visible at the macro-economic level and most visible at the household level.

The impact on the household of death and illness of an adult worker includes not only lost wages but also reduced access to land, labour, funds for farming inputs, and may result in a shift from cash to subsistence agriculture (Ainsworth and Over 1994). Poor households have a small asset base and can only absorb limited adjustments (Brown et al 1994). For informal traders, their own illness or time taken to care for the illness of others, results in lost earnings and an increase in costs that may make it difficult to resume business (ILO 1995).

The problems of peasant households, which have always been more vulnerable if they lack non-farm incomes, links to trade infrastructures, labour to meet seasonal demands, and labour-saving technologies, are likely to be exacerbated by AIDS (Ainsworth and Over 1994). This negative impact may reduce food production per capita, shift agriculture towards non-agricultural activities and off-farm employment, and lead to cultivation of smaller plots with less demanding crops. There is a reported shift towards consumption of products that were previously stored or sold and a decline in food cultivation as a result of AIDS (Foster 1993). AIDS also exacerbates household vulnerability caused by drought, dependency on inorganic fertiliser, and lack of access to credit for woman-headed households.

Because monitoring of economic conditions in the informal sector and at household level is poor, these costs may not be visible in the macro-economic picture, but they

are real costs nonetheless. With its impact on household food security, health, education and domestic consumption, AIDS will have significant implications for development, even if its effect on gross per capita income is low (Bloom and Mahal 1995b).

4. Legal standards on AIDS in employment

General labour and employment law in the region provides the context for legal standards governing the management of HIV/AIDS and employment. AIDS has highlighted general weaknesses and ambiguities in managing ill health at work, including procedures for job termination on medical grounds, confidentiality and employee benefits. These weaknesses have created situations where employees perceived to be HIV positive have experienced victimisation and discrimination, where job access has been restricted or employment has been terminated on the basis of HIV status. Workers in companies with in-house health facilities have expressed particular concerns about protection against victimisation due to HIV.

In 1994, a regional conference on AIDS and Employment in Southern Africa was held by the OATUU (Organisation of African Trade Union Unity) HSEP (Health, Safety & Environment Programme) in co-operation with SAfAIDS and supported by CIDA. Attended by employers, organisations, trades unions, governments and professionals, the conference defined a number of issues to be followed up including developing and legislating for a code of practice on AIDS and employment. The Government of Zimbabwe and SATUCC (Southern Africa Trade Union Co-ordinating Council) raised the issue of legally binding principles at the Southern African Labour Conference in 1995, and the concept of developing national and regional codes was taken up by the newly created SADC Employment and Labour Sector. The sector has since addressed three main issues:

- human rights, or more specifically employment rights, issues;
- production and productivity issues; and
- employment and labour market issues, including employee benefits and social security issues.

The development of a specific code on AIDS was motivated by the need to ensure that the principles governing all health and medical conditions in the employment context would apply equally to HIV/AIDS, given the potential for discrimination. Developed on the basis of national policies in Zimbabwe, Botswana, Zambia and Namibia, the code aims to ensure non-discrimination between individuals with and without HIV and between HIV/AIDS and other health problems, and to achieve a balance between protecting the rights of all parties including those with and without HIV, employers, employees, the state and others. These basic principles are applied to the areas of education and information, job access and security, workplace testing, managing illness, employee benefits, protection against victimisation and grievance handling.

The development of national codes of practice on AIDS and employment has been taken forward in Botswana, Zambia, Zimbabwe, Namibia, South Africa, Malawi, Lesotho and Mozambique. In Zimbabwe, for example, the code has been adopted by the national tripartite and is undergoing legal drafting, and in Botswana, the code has

been adopted by the National Employment Manpower and Income Council. Namibia and Zambia are in the process of national tripartite review.

However, a code on AIDS and employment is only a starting point, highlighting that the issue is a public rather than a private one, and is part of wider efforts to improve and harmonise occupational health standards and define basic labour and employment standards in general in the region.

5. What has been done to date and what remains to be done?

A common initial response to AIDS was denial, due to the lack of recognition of the disease and unwillingness to take on an additional challenge, which delayed the introduction of initiatives to manage the impact until the epidemic was well established. Despite this, by the early 1990s governments, employers and labour had begun information and awareness activities. Ministries of health, trades unions, employers' groups and international bodies have carried out various capacity-building, policy and information activities to deal with the impact of AIDS on workers. Union and tripartite national and regional meetings have set out to develop approaches to and programmes for AIDS awareness and to develop policy positions on industrial relations and AIDS.

In the early stages, these programmes focused on prevention activities such as condom promotion, information and education, and STD control, rather than managing the impact of AIDS or promoting health in those with HIV.

In Botswana, for example, government, non-government organisations and the private sector have responded in several ways to the epidemic. The government adopted a Presidential Directive "Botswana National Policy on HIV/AIDS" which created the political environment to support the inclusion of HIV/AIDS related issues into the process of development planning. The business sector has established the Botswana Business Coalition on AIDS, while the employers' federation has conducted an assessment of the impact of AIDS on enterprises in Botswana. And the Botswana Federation of Trade Unions has introduced programmes at company level through peer education.

In Malawi, the employers federation, working with government and the JSI/STAFH (John Snow International/ Support to AIDS and Family Health) project, has participated in a task force that has examined the impact of AIDS and carried out interventions aimed at preventing HIV and living positively with HIV. And, in Zimbabwe, the inter-sectoral committee on AIDS and Employment has begun a process of raising issues and reviewing actions on production and benefits in relation to AIDS.

Trade union awareness programmes were launched in the early 1980s in Zimbabwe and Tanzania, and in other countries in the region in the early 1990s. Following demand from their membership, the Zimbabwe Congress of Trade Unions introduced awareness aimed at couples, and the Zimbabwean unions have introduced peer

education programmes in sectors otherwise difficult to reach such as domestic employment and agriculture.

In Swaziland, larger businesses have started programmes focusing on changing sexual behaviour (Gilbertson 1996). One large consortium has 67 peer educators, managed by a community health team, who, together with an HIV positive person, organise discussion on HIV issues and distribution of condoms. In larger companies, an AIDS committee monitors the epidemic, considers the issues affected and advises on strategies to minimise impact (Gilbertson 1996). Gilbertson also notes that managers and supervisors need to be trained about workers' health in general as well as the importance of HIV/AIDS to ensure the sustainability of education programmes.

Tripartite workshops in 1995 in Botswana and Malawi reviewed the economic and production impact of AIDS including:

- the economic, social and workplace context and impact (economic production, occupational health and safety, and human resource development);
- employment and industrial relations; and
- approaches to interventions for managing the impact.

In these and other countries in the region, company level impact assessment is examining how AIDS is affecting businesses and how to put in place strategies to address training and human resource losses, introduction or restructuring of benefits, health interventions and the industrial relations and organisational culture needed to manage AIDS.

Much work has been done at this level in Zambia (ILO 1995b; Ching'ambo et al 1995; Forgy and Mwanza 1994) and, in Malawi, companies working with the multisectoral workplace task force have used impact assessment as an entry point for raising awareness. In Swaziland, assessment has been carried out in the sugar estates and at national level (Whiteside and Wood 1994), and in Kwazulu Natal in South Africa work has been done at the local authority level (Whiteside et al 1995).

Much positive and negative activity by companies is not documented. Negative activity, such as a shift towards insecure labour contracts and job shedding, is also difficult to attribute to AIDS in the current economic climate.

5.1 Difficulties encountered with activities attempted to date

ILO (1995) report that fear and complacency among employers and management have slowed down development and implementation of workplace programmes focusing on AIDS. There have also been a number of difficulties, in particular related to activities aiming to disseminate information. First, there has been little evaluation of the impact of information activities on knowledge, attitudes or practices. Second, most of these activities have not reached top levels of management, many of whom continue to perceive AIDS as a distant corporate as well as personal risk. And third, introducing AIDS activities in isolation from programmes which promote health and social welfare undermines their effectiveness and sustainability.

5.2 The need to confront ill health in general

Although AIDS may be a catalyst for company activities, interventions are needed that confront ill health as a more general problem facing the workforce and which, therefore, take a broader public health and health promotion approach. Many companies have recognised the need to integrate primary care into their health services and to focus on prevention of ill health. Many have not, however, broadened the scope of their interventions, seeing health promotion as the employee's individual concern, avoiding liability for work-related ill health, and only dealing with health as a curative issue when disease must be managed to avoid lost work time.

5.3 Informal sector and household production

There is very little information concerning the small enterprise, informal or household production sectors, even though these constitute the largest pool of labour in the region. Less than 20% of the regional workforce is employed in the formal economy, and less than 5% of these are employed in skilled jobs. To address this, various interventions have been proposed, including:

- labour economising methods and technologies that improve labour returns;
- developing apprenticeship and other community-based approaches for skills exchange;
- enhancing investment in small scale, vocational and youth training;
- improving credit;
- income and savings opportunities for young women and widows;
- securing survivors' land inheritance and tenure rights; and
- developing national social security schemes and safety nets.

However, there is little evidence about the extent to which such interventions are being implemented, their effectiveness or how they might be organised.

The household and informal sector does not receive the same planning and support for production and human resource development as the formal sector. Even more than in the formal sector, strategies for managing the impact of HIV/AIDS in the informal and household production sector are ad hoc, unsupported and rely on individual or family initiatives.

This is despite evidence suggesting that the impact of the epidemic in Southern Africa will be most severe on the informal and household sector, both because of the numbers involved and because of the greater vulnerability of this sector. The problem is starting to be acknowledged and the 1995 Botswana tripartite workshop on AIDS, for example, noted that the epidemic will also have an impact on schemes such as credit financing aimed at enhancing the productivity of small scale enterprises. But a systematic review of how AIDS will impact on the existing situation, strategies and organisations of the informal sector is yet to be done.

5.4 Broader social responsibility

The activities of employers, unions and other parties signal a willingness to take up a broader social responsibility for AIDS. As one employer from Swaziland noted “HIV puts pressure on the employment sector to broaden its scope of social responsibility to cover areas not presently addressed by legislation or codes of practice” (Gilbertson 1996). This may extend to more developed or better resourced sectors examining their role in supporting vulnerable public health systems, small scale producers, or orphans, while themselves being supported in delivering effective health interventions, benefits, training and other measures to deal with their own concerns around AIDS. But the vacuum in the informal sector highlights that the issue of social responsibility has yet to be elaborated in practical terms.

There is a basis for developing a collective approach to social responsibility through national tripartite structures, but strategies and options are needed to assist them to do this in the context of the many other pressing concerns in the employment and labour sector.

6. Conclusions

1. HIV/AIDS is only one of many problems affecting the productive age group in Southern Africa. With or without AIDS, there is an unacceptably high level of preventable ill health affecting productivity among the working population, and steps need to be taken to reduce the burden of communicable and occupational disease.
2. Aspects of the structure of employment and the economy in the region contribute to increased susceptibility and vulnerability of workers, for example migration and family separation in sectors such as the mining industry, patterns of trade, and factors encouraging rural to urban migration.
3. Workplaces can contribute to reducing ill health and enterprises need clear information about effective public health strategies. Taking action to reduce the risk of HIV/AIDS requires positive health promotion measures in the employment and labour sector to address the broader factors which contribute to susceptibility and vulnerability, and a shift away from the past emphasis of employers on curative care. This implies closer relationships between enterprises and local authorities on health issues. It also requires tackling income inequality between men and women, prevention of occupational illness, improved housing and conditions for migrant workers, among other measures.
4. Although there is little clear evidence to suggest that the impact of HIV/AIDS on labour has created major problems for enterprises or affected macro-economic indicators, it would seem that the cumulative effects of loss of experienced workers and increased absenteeism will have an impact on business efficiency and productivity, increase competition for and costs of skilled labour, and force employers to adopt strategies such as increasing investment in training.
5. AIDS-related health care costs are significant for companies and households as well as for the public health sector.
6. Social security, insurance and employee benefits schemes will be of increasing importance as demand grows for savings and resources to meet the needs arising from death and illness. Steps need to be taken to address low levels of coverage by life and medical insurance and pension schemes in the region, and to strengthen health and social security systems. Enhancing and stabilising savings and ensuring that they are used for investment rather than consumption is another challenge, as is identifying measures to address the impact of the rising number of claims related to HIV/AIDS on the insurance sector.
7. HIV/AIDS impacts the informal and household production sector most adversely, exacerbating existing vulnerability and structural weaknesses, but as yet little has been done to develop approaches to measure the impact or to support this sector.
8. Within the general legal framework of employment and labour in the region, steps have been taken to develop and adopt regional and national codes of practice to protect employment rights and prevent discrimination because of HIV.

9. Governments, NGOs, employers and trade unions have initiated programmes to address HIV/AIDS in relation to the workplace and the workforce, ranging from awareness raising, condom distribution and STD control, to union and company initiated peer education programmes, although these have not always been well evaluated in terms of their impact. Workplaces can play an important role in improving the dissemination of information about diet, stress reduction and other aspects of management of HIV/AIDS as a chronic illness.
10. Unions, employers and governments have begun to assess the impact of AIDS on economic production and human resource development, to review the implications for employment, benefits and industrial relations, and to consider approaches to interventions to manage the impact of the epidemic. There is a need in particular to identify approaches to covering the costs of AIDS prevention and management, in ways that are equitable and ensure that the burden does not fall disproportionately on the household level and those that are most vulnerable.

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8. Endnotes

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- ¹ Susceptibility is the term used for the factors that make a person more or less likely to be infected. It should be contrasted with vulnerability, which is the term used for the factors that make a person more or less able to cope once infected.
- ² From all causes, not just AIDS.
- ³ It should be noted here, however, that the figures for overall turnover, or expenditure on other worker benefits or health issues, are not available for comparison.
- ⁴ See, for example, Doyle P and Millar (1990) *A General description of the actuarial model applicable to the HIV epidemic in South Africa*, Transactions of the Actuarial Society of South Africa VII(1), and Doyle P (1993) *An update of the HIV/AIDS epidemic and modelling in South Africa*, Transactions of the Actuarial Society of South Africa IX(III).

Background Studies No 2

A Case Study Of The Mining Industry

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1. Context

1.1 Introduction

This paper examines HIV/AIDS in relation to the mining industry in the SADC region. HIV/AIDS is conceptualised as a marker of broader development issues in the sector and the region, rather than as a biomedical problem¹. The paper highlights some of the social, psychological and economic factors which make miners susceptible to HIV infection, in order to stimulate debate about multisectoral strategies to tackle these factors.

Although the proposition that HIV/AIDS is not just a medical problem is not a new one, the response to it by the mining industry, with a few notable exceptions, has failed to address the broader social and economic context of the disease.

The paper is organised in three sections. The first discusses the history of HIV/AIDS in the mining sector, the implications for management and unions, and their response to the problem, which has broadly fallen into two approaches—biomedical and human rights. The second section argues, using a case study of one mineworker, for a shift to an approach that recognises the importance of contextual factors, and the third section concludes the paper by identifying the challenges this poses for policy makers.

1.2 The importance of the mining sector in Southern Africa

Mining plays a central role in the economies of a number of countries in the SADC region. It contributes about 60% of foreign exchange earnings, an average of 10% of the region's gross domestic product (GDP), and provides about 5% of total employment (see Table 1). In most of the countries where mining is significant, the contribution to exports is particularly high, reaching 90% in Botswana and Zambia, and 65% in South Africa.

The sector is also a major consumer of utilities. In Zambia, mining is the largest industry consumer of electricity and coal, while in South Africa it consumes 23% of electricity sold. Mining is responsible for 69% of export tonnage on the Tanzania-Zambia railway (data from SADC Mining Sector Co-ordinating Unit).

In the social sector, mining provides housing and health care. In Zambia, the industry provides 11 hospitals and a large stock of housing in seven towns of the Copperbelt. In South Africa, the industry operates 41 hospitals with 7,000 beds (7% of the total in the country), employing around 300 doctors and a total health care staff of 3,500 (Fourie 1996). In Zimbabwe, the mining sector provides 9 hospitals, 51 clinics, 38 doctors, housing for 330,000 people and 40,000 school places (SADC Mining Sector Co-ordinating Unit).

Mining is closely linked with migration, especially on the South African mines which employ 83% of all mineworkers in the SADC region. In 1993, there were as many Botswana working on South African mines as on mines in their own country, and

remittances from the 85,000 Basotho workers in South African mines provide a third of Lesotho's GDP².

Table 1. Economic importance of the mining sector in SADC countries.
n.d.: no data available. (Data supplied by the SADC Mining Sector Co-ordinating Unit.) The number of people from other countries working on South African Chamber member mines are taken from Chamber of Mines (1996)

	Mining output as a % of:			Mining Labour	Labour on South African Mines
	GDP	Export	Employment		
Angola	9	<i>n.d.</i>	<i>n.d.</i>	<i>n.d.</i>	0
Botswana	40	90	6	13,000	12,930
Lesotho	0.4	<i>n.d.</i>	<i>n.d.</i>	1,000	85,017
Malawi	0.3	<i>n.d.</i>	0.1	3,500	0
Mauritius	<i>n.d.</i>	<i>n.d.</i>	<i>n.d.</i>	<i>n.d.</i>	0
Mozambique	0.2	2.9	6.2	<i>n.d.</i>	49,703
Namibia	30	54	5	12,000	0
South Africa	9	65	4.3	600,000	—
Swaziland	2	<i>n.d.</i>	<i>n.d.</i>	<i>n.d.</i>	15,894
Tanzania	2	1	1	<i>n.d.</i>	0
Zambia	13	90	15	44,000	0
Zimbabwe	8	45	4	50,000	0

2. Mining sector responses to HIV/AIDS

2.1 Management responses

Management has responded to HIV/AIDS in several ways:

- Involvement in prevention activities.
- Formulation of labour policies involving issues such as grievance handling, job access, retrenchment and confidentiality, as well as negotiating bipartite agreements on these issues with unions and tripartite agreements with unions and government.
- Consultation with international experts.

Almost all these responses have focused on the individual level, and industry management has explicitly refused to acknowledge links between HIV susceptibility and housing or migration³. This is consistent with the industry's response to miners' illness in general.

2.1.1 Management response to miners' illness

Most of the larger mines in the region have good hospitals, and in South Africa, for example, the mines have a history of providing excellent curative and tertiary care (Fourie 1996).

Less emphasis has been placed on preventive medicine and primary health care: miners in Zambia and South Africa, for example, continue to suffer from high levels of tuberculosis and silicosis⁴, and in the South African gold mines the average mineworker stands a one in forty chance of being killed and a one in three chance of suffering a reportable injury in a 20 year career.⁵

The priority given to curative care has been based on the need to maintain a productive workforce and, hence, to deal with immediate problems at the individual level quickly and effectively.

HIV/AIDS has had two main effects on the industry's traditional approach to health care.

First, the epidemic has prompted the introduction of preventive programmes, including education and information provision, and distribution of condoms. Second, consideration of how to meet the costs of providing free treatment to workers who are sick.

Despite the efforts of prevention programmes, the results have been disappointing (Crisp 1996), with improvements in awareness and knowledge not translating into behavioural change and with no demonstrable effect on the epidemic. Levels of STD have remained high even where educational campaigns have been linked to improved surveillance and treatment (Ballard 1996). In addition, the costs and efficacy of prevention programmes, alone or in comparison with treatment, have not been carefully assessed (Stein and Steinberg 1995; Gahagen 1996).

Although AIDS is not by definition an occupational illness, HIV positive workers may develop serious illness during their working lives, and the industry will be faced with increasing numbers who are expensive to treat. Given that the industry has traditionally provided free health care to miners⁶, this situation will necessitate rethinking the levels of treatment that the mines can continue to provide.

The longer-term response of the industry is not clear, but is likely to be determined by economic considerations. As one industry representative stated: "AIDS is neither a human rights issue nor a health issue. For the mining industry, AIDS is a business issue" (cited in Crisp 1996).

2.1.2 Implications of HIV/AIDS for the mining industry

HIV/AIDS has implications for a number of issues in the mining sector, including labour, productivity, and benefit and care costs.

Human resource implications

There is no evidence that loss of labour through AIDS deaths will seriously affect the overall economy of the mining industry. Although it has been estimated that it will increase worker turnover, for example on the South African goldmines from 3% to 6%

a year, there is a large pool of available labour to replace lost workers in a low-skill, low-paid workforce.

Human resource strategies will be needed, however, to deal with workers taking time off for HIV/AIDS-related illnesses or to attend funerals. In Botswana, for example, multi-skilling is being promoted to train workers for a range of jobs, and pool groups are being established to provide a reserve of workers who can be called on to perform a range of jobs at short notice. In some settings in Zimbabwe, two workers are trained for each skilled job to minimise vulnerability to sudden loss of skilled individuals.

Production losses

The cost of producing gold in South Africa is about 25% higher than in the USA, Canada or Australia (Baxter 1996), making South African gold uncompetitive. The copper mines are even more marginal, particularly in the light of the instability of the world's copper markets. AIDS-related illness will disrupt shifts, and may exacerbate uncompetitiveness. Based on a very preliminary analysis, Foster (1996) estimates that the loss of productivity on the South African gold mines due to HIV/AIDS will be about 2.5%. However, mining bosses believe that, overall, the impact of the epidemic is manageable. The chairman of South Africa's Anglo-American gold division was recently quoted as saying "If you are asking me whether I think the AIDS epidemic will destroy the mining industry, the answer is no. We will revise our death benefits and medical aid to be able to cope".⁷

Death benefits

This has become a major issue in South Africa where, in 1995, the Old Mutual Assurance company raised contributions by 30% (70% of contributions are paid by employers and 30% by employees⁸), and indicated that further rises may be needed. Neither unions nor management wanted to bear the increased costs, and options being considered include reducing the level of benefits to allow for a smaller premium increase.

Compensation

Historically, the mines have paid compensation to workers for occupational diseases such as tuberculosis and silicosis. Unions have argued that compensation should also be paid to workers with HIV/AIDS forced to retire because of ill health, but AIDS is a complex multi-causal illness and the unions will not be able to demonstrate a causal link between mining and HIV infection or that AIDS is an occupational disease. However, the debate is complicated because tuberculosis is a compensatable illness, and TB is clearly associated with HIV.

The South African Chamber of Mines has argued for pre-employment HIV testing—to exclude HIV positive workers for their own good from exposure to TB as a result of the working conditions in the mines (La Grange 1996). It should be noted that this would also reduce the costs to the industry of health care and of compensation for workers with HIV-associated TB.

Care

The costs of care for people with HIV/AIDS-related illness during their contracts are the most economically threatening to the industry. Treating one HIV positive miner for cryptococcal meningitis is estimated to cost R 40,000 in South Africa (Whiteside

1992). The traditionally free provision of the best available treatment in other large mines in the region would raise the costs towards expenditure levels in the USA, and given the implications of this for the industry, it has been suggested that the costs be borne by the state.⁹

Mine medical services will need to make difficult decisions about which diseases they can afford to treat, but how future care will be managed is not yet clear and has yet to be seriously addressed by management and unions.

2.2 Union responses

The union response to HIV/AIDS in the mining sector has focused on two main issues: negotiating labour agreements around HIV-related human rights issues to ensure that there is no discrimination against people with HIV, and a more limited involvement in prevention activities.

2.2.1 Reactive nature of union responses

Historically, unions in the mining sector have responded to HIV/AIDS by negotiating agreements with management around human rights issues. Union responses have in the main been reactive rather than proactive. In South Africa, for example, after a Chamber of Mines study found higher rates of HIV infection in Malawians compared to workers from other countries¹⁰ their repatriation was demanded¹¹ and the introduction of pre-employment testing to exclude those who are HIV positive was proposed.¹² The NUM argued successfully that these were discriminatory practices and agreements to prohibit pre-employment testing have now been formalised between the NUM and the Chamber of Mines.

Again, in South Africa, the unions reacted to the proposed increase in premiums by the Old Mutual Assurance Company, discussed above. Unions, management and the insurance industry are currently debating the form that premiums and death benefits should take in the future.¹³

2.2.2 Participation in bipartite and tripartite codes and agreements

In the SADC countries, unions have been party to a number of tripartite agreements protecting workers against discrimination and unfair dismissal. Progress in incorporating these agreements into law has been slower, although in some countries such as Zimbabwe the government is in the process of incorporating these issues into industrial relations legislation.¹⁴

Another challenge for the unions is to ensure that awareness of these agreements reaches the lower levels of union leadership and the grass roots, so that they are enforced. This will not be easy in the context of lack of awareness of HIV, low perceptions of risk and the susceptibility of ordinary workers to HIV infection.

More recently, efforts have been made to develop regional union positions on HIV/AIDS, with a series of meetings focusing on the establishment of regional mining codes. For example, the Southern African Miners' Federation meeting in August 1996

produced a health manifesto as part of a concerted move to consider HIV/AIDS in a way that acknowledges the social context of disease.

2.2.3 Prevention activities

Unions have been involved in prevention activities to a more limited extent, and most prevention programmes have been initiated and funded by management or outside agencies. One constraint is members' lack of awareness of the urgency of HIV/AIDS, and union leaders in a range of countries have noted the difficulties of grass roots organising around the issue.

The reasons for this include: low perceptions of risk and susceptibility, powerlessness in the face of another disease in a context where levels of ill health are high, the range of other social stresses and problems faced by mineworkers, stigma associated with HIV and denial.¹⁵

One management representative spoke of the unwillingness of workers to be involved in prevention activities:

“They have other problems like safety and security and wages. In many ways, AIDS is at the bottom of their pile of priorities. We need the unions to be less reactive and to take a more proactive role in the whole business. ... The unions are not taking ownership of the programmes.”

2.2.4 Migration and housing

Miners' living conditions vary from country to country in the region. In South Africa, the majority of miners live in hostels, away from their families, in poor overcrowded conditions.¹⁶ This is not the case in Botswana, Zambia or Zimbabwe, where the majority of workers live with their families and living conditions for miners are not substantially different from workers in other sectors.

Housing is one area where the unions in South Africa have been more proactive. Since 1988, the South African National Union of Mineworkers has argued strongly for something to be done about migration and housing in relation to HIV and AIDS. As a South African mine union leader said: “The best thing that management could do for the HIV problem in South Africa would be to provide family housing and decent bachelor quarters for the workers”. In 1994, the NUM signed a framework document with the Chamber of Mines, relating to the establishment of bipartite housing fora. In some cases this has resulted in housing being built with mine management subsidising land and providing expertise and resources, but in other cases progress has been slow, and 80-90% of miners still live in hostels.

2.3 Joint responses

There have been a number of bipartite (management and union) and tripartite (management, union and government) meetings at national and regional levels in SADC, resulting in a range of resolutions, policy declarations and codes.

The Southern African Tripartite Workshop on AIDS and Employment in Zimbabwe in February 1996, discussed in Section 3, led to the drafting of a code on AIDS and

employment which was unanimously adopted by tripartite delegates from Zambia, Zimbabwe, Botswana, Namibia and South Africa. However, not all joint meetings have been as successful. The Southern African regional seminar on HIV/AIDS in the mining sector in August 1995 concluded with a number of recommendations, one of which was to convene a committee consisting of the Chamber of Mines, NUM and Department of Health in South Africa, but which the Chamber of Mines declined to be involved in subsequently. (Heywood, 1996, p. 6).

These meetings have had some positive outcomes, for example encouraging officials to extend prevention programmes on their mines. But management and union leaders have had difficulties in sustaining the momentum, either because of lack of commitment of top management¹⁷ or difficulties in motivating workers at the grass roots, and the gap between policy and implementation remains.

2.4 Reasons for the lack of an effective response to HIV/AIDS in the mining sector

2.4.1 Lack of leadership from governments

The failure of governments to provide clear vision and leadership has resulted in mining management and union initiatives taking place in isolation. So, for example, while many miners have been exposed to information at the workplace, the same information is not disseminated to the wider community with which they interact outside the workplace.

Responsibility for HIV/AIDS has typically been located in Ministries of Health, with the result that it is perceived as a medical problem and this has reinforced the traditional approach of mining management. Attempts to take a multisectoral approach have not always been very successful, either because they have been reactive (i.e. to accommodate predicted impact) or because they have concentrated on spreading conventional prevention activities through other ministries, such as distribution of educational materials, rather than innovative approaches addressing the broader social, cultural and economic factors that provide the context for HIV transmission.

Activities at a national level should provide the broad context for activities in the mining sector, and national programmes should play a critical role in supporting and reinforcing industry education and prevention initiatives through similar initiatives in the wider community (e.g. in the media or in schools). Mine programmes that have attempted to conduct educational programmes in a vacuum have been criticised for their failure to have an impact.

2.4.2 Lack of a unifying vision

A unifying vision between government, unions and management increases the likelihood of successful interventions.¹⁸ But, as noted above, there has been a lack of government leadership, and unions have encountered difficulties in motivating grass roots members and in encouraging management to link HIV/AIDS to issues such as migration and housing instead of maintaining a primary interest in biomedical interventions.

The extent of the epidemic is also discouraging prevention efforts, as treatment and care demands more attention and as efforts to date appear to have had little impact on the spread of HIV.

2.4.3 The problem of stigma

Successful health promotion requires openness. But, throughout the region, stigma associated with HIV/AIDS has led many people with HIV to hide their status, contributing to lack of awareness of the extent of the problem. Stigma is also an issue for management, concerned that, if the extent of HIV/AIDS is acknowledged, the industry will be scapegoated, unfairly, as the "AIDS industry".

2.4.4 Top down approaches

As already discussed above, grass roots involvement in prevention programmes and the formulation of codes and agreements has been minimal, and this has contributed to the lack of success of initiatives to date.

3. Reframing the debate

As the previous section has shown, HIV/AIDS has been viewed as a medical problem rather than as a broader social and development issue, and this has been reflected in strategies to address the epidemic. The following case study illustrates how the sexual behaviour of mineworkers is influenced by a range of contextual factors that an individualistic approach fails to address, and is intended to stimulate debate about developing policies which will have an impact on these factors.

3.1 Case study: the psycho-social context of HIV transmission on the South African gold mines

P was one of 40 mineworkers interviewed for the Epidemiology Research Unit's Perceptions of Health Project in 1995. An account of his life has been constructed from this interview to highlight the psycho-social context of sexual behaviour in a particular mining context.

P is 23 years old, and he comes from a rural district in Lesotho. He works on a gold mine about an hour's drive from Johannesburg, South Africa. At the time of the interview in 1995 he had been on the mines for six months. He is tall and thin with a strong sense of humour, and much of his conversation takes the form of laughter and joking. He describes himself as a happy person. He does not have a special girlfriend or any children. He seems lonely on the mines and says that he misses his family very much, especially his parents. He says that he has an excellent relationships with his parents, despite the fact that they are very strict. In the mine compound he shares a room with 11 other men, and while he likes these men and appreciates the advice and support they often give him, they are all quite a bit older than he is and in some ways he feels he does not have much in common with them. He has one friend of his own age group who lives in another room in the same hostel. They spend their spare time together, playing *morbaraba* (fingerboard) in the compound or washing their clothes. P is very religious, and is part of church group that meets almost every day in the veld outside the mining compound.

He describes his job as the "pikinini ya square"—inserting dynamite into the rocks after the holes have been made. He gets paid about R800 per month. He does not enjoy this work, but feels that he has no option but to continue with it because his family in Lesotho have serious money problems. His father had been a mineworker in his youth, but had lost his job: "I was told that my father had been a loafer." Opportunities for making a living in rural Lesotho are extremely limited. P says that his options regarding work are particularly limited because he has had little formal schooling. "Truly speaking, unfortunately, my father could not take me to school because he was interested in women here in

Johannesburg. So I had to herd cattle as I was growing up.” He says that currently his main worry is that he would like to have his own wife and his own possessions. However he says that it is difficult to “chase two hares” (viz.: support both his parents and siblings on the one hand, and a wife and children on the other). “Given the salaries we get one cannot satisfy all their needs, that is why I am concentrating first on my parents. I did not go to school myself, so I want my younger brothers and sisters to get education, so as not to do the kind of work I am doing, but to get better jobs. The job I am doing is not for people with education, but for those who did not go to school. I do not want them to suffer like me, but to find themselves certain positions.”

At first he found underground work very frightening—“the underground surprised me, and I felt like running away, but I could not until I got used to it”. He said that his colleagues played an important supportive role in consoling him, and encouraging him to be strong in the face of his anxieties. He and his colleagues are constantly aware of the danger of accidents. He says that he deals with this fear by never talking about it. “We do not talk about injuries because if we did we would be too afraid to work underground.” While he himself has never been underground when an accident happened, he has seen the bodies of dead and injured people being brought out of the mine.

He is not satisfied with his working conditions, particularly since he says that he frequently has to work much longer than the eight hour shift he is paid for—often up to 10 or 12 hours. However he says that he and his colleagues have limited channels for airing their grievances: “We usually complain to our ‘baasboy’ (supervisor) and he usually does not take further steps. When he really tries to put forward our complaints he reaches a deadlock with those in authority.”

He describes his health as extremely poor, and finds working in the mines strenuous. The intense heat underground gives him headaches, and at the end of the day his body is full of pains, and his feet get very swollen. He ascribes the pains and the headaches to underground work and has recently sought treatment for these at the mine medical clinic. He ascribes the swollen feet to witchcraft practised on him by an old woman in his home district in Lesotho. He has consulted a number of sangomas about his swollen feet, paying them between R200 and R500 per consultation, to no avail. Currently he is consulting a faith healer, who is attempting to treat him through prayer. He says he struggles with medical doctors because he does not speak English, but he deals with this problem by making sure that someone accompanies him to the doctor to explain his problems.

P has many sexual encounters with commercial sex workers on the mines. He gives two reasons for his excessive sexual activity. The first is

that he enjoys the sexual freedom he has away from the control of his parents—who were very strict and prohibited him from moving around freely. The second reason is that “this is the way that men were made—to always have desire for women”. He says that casual commercial sex is easy to find. At every stage of his journey to and from Lesotho, large numbers of women gather, selling sex to workers. In particular women wait for men in Maseru on their way home from the mines with money in their pockets. At the mines, women also market sex in great numbers, and hang around near the liquor shop where people are drinking. “All you have to do outside the compound is to call someone—they all sell for ten Rand a round, especially those who do not insist on a condom, we like to do it “nama nameng” (flesh to flesh). I think a condom is wasting my time.” He says that condoms are freely available at the compound gate at no cost, but they are not to his taste. He tried using a condom once, but in the middle of the sexual encounter the woman ran away—saying that she feared that if he ejaculated in the condom, the condom would be left inside her. This—in addition to the fact that he did not feel pleasure with the condom on—has made him unwilling to use them again.

His knowledge about HIV/AIDS was patchy. In response to questions about HIV/AIDS, its symptoms and its causes, P said that HIV/AIDS was caused by having sex with many women, and that its main symptoms were that it caused the skin to peel off. He said it was an extremely serious disease, not curable by traditional healers, but he believed that if one went quickly to the medical doctors there might be some chance of them healing it. He said that he himself worried that he might get AIDS due to his sexual activities—but that these fears did not deter him. “The truth is that I do not think anything when I am having sex. It is only when I am finished—that is when I start to think about AIDS.” When asked why he knowingly took such risks, he commented that “the truth is that a man is a dog—meaning that he does not get satisfied ... when a man sees a dress, he follows her ... basically it is the body that has that desire”.

It can be seen that P’s health, particularly in relation to his risk of contracting HIV, is affected by a range of social circumstances which existing HIV prevention programmes do not take account of.

3.2 Contextual factors

In two papers discussing the 40 interview study from which the case study was drawn, Macheke and Campbell (in submission) and Campbell (in press) highlight some of the contextual factors that make mineworkers particularly susceptible to HIV, and these are summarised below.

- *Rural poverty and migration*—many workers work on the mines because of rural poverty and lack of other employment opportunities, and it is the best financial option despite the stresses and dangers.
- *Housing*—most workers live away from their homes and families, in large, overcrowded single sex hostels with few opportunities for leisure activities.
- *Working and living conditions*—mine working conditions are grim, involving physically taxing and dangerous work with few breaks, and drinking and sex are among the few activities available after work to enable workers to relax.
- *Fear of accidents*—miners live in daily fear of accidents; many have witnessed accidents where friends and colleagues have died or been injured, resulting in post-traumatic stress. In a context where death, illness and injury are part of daily life and immediate threats to life and health are a priority, the motivation to avoid a disease that may affect them in the future is not high among mineworkers.
- *Self-efficacy*—the more people feel in control of their lives the more likely they are to take measures to protect their health. Mineworkers feel powerless in many aspects of their lives and have little faith in their ability to improve working conditions or avoid ill health.
- *Easy availability of commercial sex and gender dynamics*—commercial sex may be one of the only options available to women to earn a living for themselves and their children, and they may not be in a position to demand that men use condoms. Women may find it equally difficult to insist on condom use in non-commercial sexual relationships.
- *Masculinity norms*—Men often adopt a macho identity as a coping mechanism for working on the mines, and this attitude of fearlessness in the face of risks may extend to sexual behaviour.
- *View that regular sex is essential for good health*—although not mentioned by P, other mineworkers interviewed have expressed this view.
- *Limited opportunities for social support and intimacy*—P described being lonely away from friends and family. Research suggests that sex provides lonely people with a sense of intimacy even in the context of commercial sex, and this may be a factor encouraging men to seek out repeated sexual encounters in the mining sector.
- *Plurality of healing systems*—the interviews illustrate how mineworkers seek health care from a range of sources, yet most HIV prevention activities are associated with western medicine. More attention needs to

be paid to traditional cultural beliefs and practices which may not be consistent with health messages emanating from prevention programmes.

4. Conclusions

1. In the SADC region, it appears that HIV/AIDS will not have a major impact on the mining industry, and that the industry is not going to make a significant contribution to the long-term care and support of former mineworkers with HIV/AIDS. These workers will depend on whatever benefits they are entitled to, increasing the burden on the insurance industry and the state, as well as on the individual household.
2. In terms of responses to HIV/AIDS by the key players in the mining sector, unions have made major progress in negotiating agreements to protect workers' human rights and steps have been taken by management and unions to initiate prevention programmes. However, there is little evidence that these activities have significantly affected the course of the epidemic in the mining industry.
3. A range of social, psychological and economic factors, such as housing, migration and family separation, powerlessness, poor working and living conditions, lack of leisure opportunities, make mineworkers susceptible to HIV. Strategies to date, which have tended to focus on the individual without addressing the wider context and on HIV/AIDS as a medical problem are, therefore, inadequate to deal with the epidemic.
4. HIV/AIDS will have an impact on the traditional approach to provision of health care by the mining industry, in terms of increasing the costs of treatment and encouraging a greater emphasis on preventive measures.
5. Increased absenteeism and deaths may reduce productivity unless strategies are developed to mitigate the effects on day to day running of the business. In addition, the industry faces rising costs of benefits and compensation, and unions and management, and the insurance sector, need to find ways to deal with issues such as increasing premiums and maintaining levels of benefits in future.
6. The industry is likely to face reduced productivity as shifts are interrupted through HIV/AIDS-related absenteeism among the workforce and will need to develop strategies to deal with this, such as multi-skilling.
7. Progress has been made in developing bipartite and tripartite regional and national codes and agreements. The challenge is to translate these into law, ensure that they are enforced, and to increase awareness of them at the grass roots level. Less progress has been made in persuading the mining industry to address issues such as migration and housing, which influence the susceptibility of mineworkers to HIV.
8. Prevention activities have been hindered by a number of factors. These include other more pressing priorities for mineworkers and unions, low perception of risk among mineworkers, lack of leadership from government in terms of implementing complementary activities in the wider community, and continuing stigma associated with HIV and AIDS.

9. At the regional and national level there is a need both for research to identify the particular contextual factors that increase susceptibility and vulnerability in the mining industry and for innovative multisectoral approaches to address these contextual factors. Migration is clearly one issue that requires action at the regional level.

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6. Endnotes

- ¹ This analysis is driven by Klouda's proposition that "HIV is not a cause in its own right, but a strong marker for action and concern in development." (Klouda 1995, p. 467)
- ² Some sections of the report will focus disproportionately upon the situation in South Africa. This is because this country has by far the biggest mining industry in the SADC region, and employs by far the largest numbers of workers.
- ³ 'A spokesperson for the Chamber of Mines ... emphasised that mining environments, where men lived in single-sex hostels, did not contribute to the spread of AIDS' *Pretoria News* 4 June 1987.
'The Chamber [of Mines] also believes that the mine environment and single-sex hostels have not contributed to the disease [HIV]. This is because, contrary to popular belief, homosexuality is not seen to be a widespread problem in the compounds' *Financial Mail* 22 April 1988.
'Had the mining environment been an adverse factor in the spread of AIDS, then the incidence of the virus among hostel-dwellers in the (mining) industry would have been higher than in the non-mining population as a whole, which the results [of the 1987 survey] show is not the case' said the Chamber of Mines.' *The Citizen* 29 August 1988.
'It is regrettable that the mining industry, which in 1985 became the first industry in South Africa to take the problem of AIDS seriously, should be used as a scapegoat for unsubstantiated claims that AIDS and mining are somehow associated' D. L. B. Pinnow, Senior General Manager, Chamber of Mines of South Africa, Health Care Services. Letter to *The Sunday Star* 25 April 1992.
- ⁴ A recent judicial commission of enquiry in South Africa noted that 'there is no evidence to indicate a decline in the prevalence or severity of any occupational disease in the mining industry during the past 20 years' (Leon *et al.* 1995)
- ⁵ Based on Chamber of Mines accident statistics for the years 1984 to 1993. (Chamber of Mines, 1994)
- ⁶ In 1973 the Chief Medical Superintendent of the Ernest Oppenheimer Hospital said that for R60 a month per person the miners are provided with everything from primary health care to the most sophisticated treatment and there are no accounts for special services, no limit, no hidden costs. *The Star* 28 July 1993.
- ⁷ *The Star*, 13 November 1995, 'AIDS and the miner— consensus is sorely missing.
- ⁸ *Eastern Province Herald* 1 August 1996 'Employers face big bill for AIDS'
- ⁹ Dr. O. Martiny, Chamber of Mines Medical Adviser in *The Star* 3 July 1988 "Migrant labour system 'is spreading AIDS' "
- ¹⁰ Brink and Clausen (1987) reported on the Chamber study in the Journal of the Mine Medical Officers' Association—reporting on blood samples that were taken in 1986.
- ¹¹ *The Argus* 8 February 1988 'Screen for AIDS'
- ¹² *The Argus* 2 April 1988 'AIDS warning from health minister'
- ¹³ It should be noted that debates concerning death benefits have been of much less significance in other countries of the region than they have in South Africa. In other countries problems concerning the replacement of skilled workers have driven the debates around HIV to a greater extent.
- ¹⁴ Rene Loewenson (pers. comm.)
- ¹⁵ As a trade unionist told us: "The problem is that many miners are unwilling to admit that they are HIV positive because they will be discriminated against by their friends, and if they go back to the rural areas everyone will know that they have HIV."

- ¹⁶ In 1995 the assessors of a judicial commission of enquiry, set up by the government and Chaired by Justice Ramon Leon, to investigate the regulation of occupational health and safety in the mining industry, visited three hostels on two mines (Leon, Davies, Salomon and Davies, 1996). Each room was occupied by between 12 and 20 men, giving an average of just over five square metres per person. The assessors were 'shocked by the conditions in which food was prepared' and by ablution facilities 'so squalid as to shock the most hardened'.
- ¹⁷ In a different, but health related, context National Union of Mineworkers counsel Edwin Cameron told the Leon Commission of enquiry into safety and health in the mining industry that none of the health and safety executives from the six mining houses had testified before the commission. *Business Day* 24 August 1994 'Mine heads lashed at safety hearing'
- ¹⁸ We are grateful to David Wilson for making this point.

Background Studies No 3

HIV/AIDS & the Education Sector

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1. Context

1.1 Introduction

This paper discusses existing concerns in the education sector and the impact of AIDS in this context. It also describes the major influences on supply and demand in education in the Southern African region and the emphasis of current efforts to improve educational processes and the role of informal education. The paper then outlines health concerns in education, and educational processes to prevent HIV transmission and to mitigate the impact of AIDS, concluding with a summary of areas where further research is required.

1.2 Existing concerns in education

The educational sector is already under strain in most countries in Southern Africa. With high numbers in primary education, high costs of tertiary education, lack of systematic educational provision in early childhood and adulthood, the sector faces enormous financial, social and managerial challenges.¹

Education still does not reach everyone, drop-out rates are unacceptably high, the models inherited from the educational systems of the past are not relevant to the present needs of the region, and the educational sector has failed to deliver investment outputs in terms of employment. Instead there are growing numbers of highly educated unemployed people. Education planning is hampered by lack of comprehensive, reliable data, particularly related to the needs of those not attending school.

The 1995 International Working Group on Education report (UNESCO 1995) identified resources and costs, quality and effectiveness as the predominant concerns. Reviewing current thinking about the role of education in development and poverty alleviation, the Group noted that globally there are 800 million illiterate people. Sub-Saharan Africa has high rates of illiteracy, particularly among women, girls represent 70% of children out of school and numbers of children not attending school are increasing.

The problems of the educational sector are related to a rate of population increase that is outpacing the increase in the number of schools, high unit costs for education combined with continuing recession and the impact of structural adjustment, decreasing quality, and inappropriate priorities. Problems that have a particular impact on girls include low perceived value of female education and lack of sexual safety in schools.

HIV and AIDS have highlighted these problems and the long overdue need for a shift in educational policy. However, although attention has been paid to education about AIDS, there has been little analysis of the impact of AIDS on the education sector or consideration of the policy issues raised, and neither the International Working Group report nor the SADC Human Resource Development Sector 1996 proposal (SADC 1996) mention HIV/AIDS as a priority issue in relation to education. Current priorities

focus on providing services to meet population increases and improving quality, improving financing and reducing inequities. One important aspect of improving quality is increasing the emphasis on social values rather than knowledge.

2. The impact of AIDS on education

Consideration needs to be given to qualitative and quantitative impacts. Both may affect supply (of teachers and students) and demand (for education or for types of education).

2.1 Quantitative impacts

Reviewing pupil/teacher/school ratios to see if there have been significant changes is one way to assess the potential impact of HIV/AIDS. A series of UNESCO tables showing these ratios for the SADC region is included in Annexes 1 and 2 (UNESCO 1997). In fact pupil/teacher ratios remained fairly constant during 1985-1993 (see Figure 1). Up to 1993, the numbers of teachers kept pace with the numbers of school students, and it would seem that no factor, AIDS included, has affected one group more than the other. Although figures for 1994 onwards are not available, the epidemic had stabilised in prevalence in Malawi, Tanzania and Zambia by 1990-1991 so any effect would have been apparent by then.

Figure 1: Student/ Teacher ratios

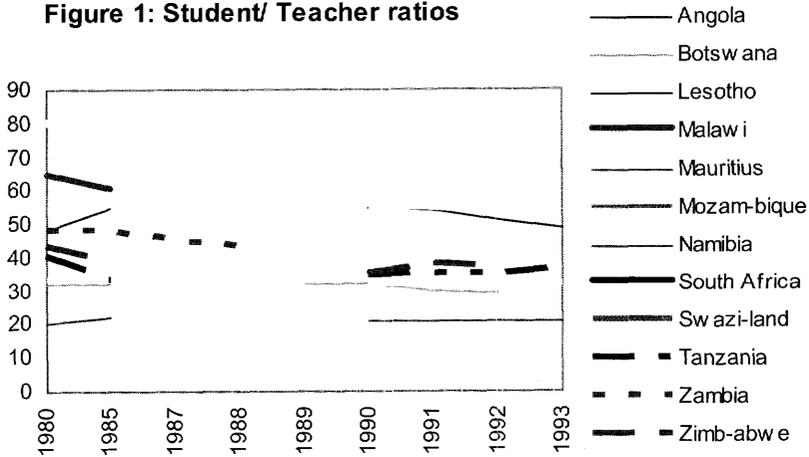
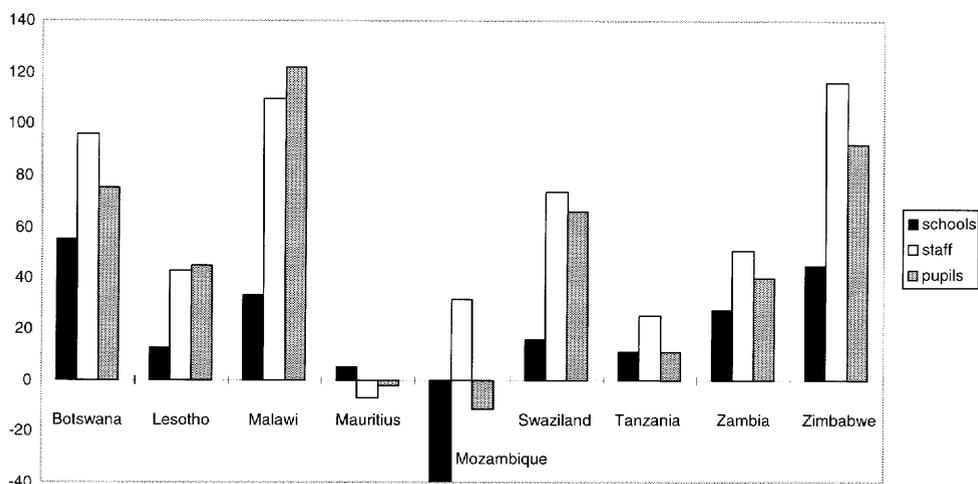


Figure 2 summarises the percentage change in numbers of schools, staff and pupils during the period 1983-1990 (Angola, Namibia and South Africa are not included, as figures for staff and schools were not provided for all parameters). Apart from Mauritius and Mozambique, staff, pupils and schools kept pace with one another, at growth rates varying from 1.7% to 6.5% a year². Educationalists are concerned that growth may have been at the expense of quality, but the impact, if any, of AIDS on quality is as yet unclear.

Figure 2: Percentage change in schools, staff and pupils 1980-1993



Before AIDS was an issue, enrolment rates were already falling (see Table 1), for economic and other reasons. Similarly, Table 2 shows that drop-out rates were already rising, in this case in Zimbabwe, before AIDS was an issue. These examples illustrate the difficulty in trying to determine the importance of AIDS relative to other factors in educational supply and demand.

Table 1

Average annual growth rates in educational enrolment Sub-Saharan Africa		
	1960-80	1980-86
Primary	8.2	2.3
Secondary	13.2	8.5
Higher	12.8	8

Table 2

Drop-out rate between Primary and Secondary Schools Zimbabwe							
1980-3	1981-4	1982-5	1983-6	1984-7	1985-8	1986-9	Average
10.4	14.9	8.4	11.6	18	24	26.5	17.3

Numerical studies that have been carried out in the region are included in Table 3. Other studies of the impact of AIDS on the education sector in the region have identified a number of issues. These include the high prevalence of HIV infection in teachers, the increase in orphans in schools and in teachers' own families, increased time children spend caring for infected adults, the impact of orphans on families'

ability to provide education for all children, and school girls selling sexual favours to pay for school fees and books.

Table 3: HIV/ AIDS Levels in Some Countries in the Region, for Education

Country	Decreased Demand: Educational enrolments	Decreased Supply	Estimated number of Orphans	Source
South Africa			KwaZulu-Natal: 1993: 13,470 2000: 197,490 2006: 565,910	
Swaziland	Primary school: 1994: 214,000 Estimate without AIDS: 2006: 343,000 Estimate with AIDS: 2006: 302,000		1) 1993: 10,730 2006: 115,090 2) 1994: 10,060 2000: 45,540 2006: 85,910	1) Whiteside et al, 1994 2) Whiteside and Wood 1994.
Tanzania	Primary: 2020: 22% less Secondary: 2020: 14% less	Primary teachers: 2020: 27,000 die of AIDS ³		World Bank, 1991.
Zambia		HIV prevalence <u>Higher education:</u> 40% <u>Gen population</u> 25% Urban 13% Rural.	1993: 50,000 2000: 600,000	Sichone & Haworth 1996
Zimbabwe			2) 15% of children under 15 years old in Mutare.	1) Mukuka and Kilikiti 1995 2) Foster 1996

Although there will be an increase in the numbers of teachers dying as those already infected with HIV develop AIDS, the extent is difficult to predict, and earlier projections have not been borne out. It is also important to consider whether teacher losses will be matched by reductions in pupil numbers, but again this is hard to predict. As Webb (1996) says:

"The impact of HIV/AIDS within the education sector is still largely unknown. Records are scant at educational institutions, and even on direct questioning, only 20% of one sample of school administrators claimed that AIDS had had any effect on labour costs (Kunxhuli 1995⁴). What the records did show is a rising trend of costs and that the highest expenditure incurred by the Ministry of Education as a result of AIDS is for funeral grants. Mukoka and Kalikiti (1995⁵) suggest that the impact is greater in urban areas: in 11 rural schools there were an average of five teacher deaths over the previous three years, compared with an average of 17 deaths in the urban schools studied. In general, though, teachers and students were unsure if AIDS had affected the quality of education in the schools".

Available data and projections, whose accuracy is hard to gauge, suggest that both supply and demand for education are likely to decrease in SADC countries in the medium term as a result of a wide range of factors that include AIDS. But it is unlikely that the two trends will match, leading to what Shaeffer (1993) calls the increased randomness of educational provision:

"In systems already affected by other factors ... the added absenteeism of teachers and pupils because of HIV and AIDS will only make education provision more sporadic and unsystematic. Parents and children who realise this may see little point in continuing to pay for such an education."

The international trend is towards devolution and flexibility in policy making, and a shift from administration to management, but this trend is not yet visible in the SADC region, and "increased randomness" will make educational planning more difficult.

As has been suggested above, many of the problems in the education sector in Southern Africa exist independently of AIDS, but the epidemic has done much to highlight inadequacies and weaknesses as well as to add to the burden. Existing data do not help to clarify the extent of the impact of AIDS and, hence the extent to which new regional policies, actions and strategies in education are required to deal with AIDS. Research is therefore needed to provide better information for planning.

2.2 Qualitative impacts

In terms of qualitative impact, some of the effects of AIDS are more obvious, for example, on teacher's health and morale, or the stress created by coping with orphans.

2.2.1 The effects on teachers

Sichine and Haworth (1996) point out that: "HIV infection levels in those that have received higher education are in the region of 40% or more (higher than the average for the general urban or rural population)." This applies as much to teachers as to other better educated groups, and is not only likely to remove teachers from the classroom but also to affect them in other ways. AIDS has been perceived to have various negative impacts as well as adding to the stresses already faced by teachers (Mukoka and Kilikiti 1995).

- Teachers become over-concerned about their health and, as a result, nervous and depressed.
- Teachers are frequently absent, they lose motivation and they become unable to perform well.

Combined morbidity and mortality rates represent a 25% increase in public expenditure required to maintain recruitment and staffing at current levels. Discrimination against teachers who are known to be infected prevents disclosure and is also psychologically and medically problematic, with negative effects on their educational performance.

2.2.2 Orphans

AIDS is adding to the growing numbers of orphans in the region, stretching extended kinship systems. Where orphans are cared for in households headed by grandmothers or older children, Whiteside and Wood (1994) note that they:

“Will not be able to afford school fees, uniforms and books, will not be likely to attend school because they need to work to survive and, if they do attend school, they will probably perform less well because of lack of home support ... they are also likely to drop out of school earlier.”

However, in some communities this is being addressed. Foster (1996) describes how the FOCUS (Families, Orphans and Children Under Stress) programme in Zimbabwe visits and supports families with and headed by orphans, and how:

“By 1995, 30 women volunteers were making 700 visits a month to about 250 needy families.”

The school system will also need to deal with the psychological deprivation of orphans which makes schooling more difficult, and the problem will increase as the number of orphans grows.

3. Improving education

The most important aspects of improving the quality and approach of education include the need to:

- Reduce inequities of opportunity and access related to gender, race, ethnicity or social status.
- Improve gender understanding and attitudes, and change power balances in relation to gender and other forms of discrimination.
- Focus more on social processes rather than academic competition or accumulation of knowledge.
- Link educational efforts to the lives people will lead.
- Improve the health of school students.

These have all been clearly stated educational priorities since 1990⁶, but improvements will potentially have great value in reducing susceptibility to HIV and vulnerability of those infected.

3.1 Inequity

In terms of equal access and opportunity there remains a gap between rhetoric and reality, as the following examples illustrate. The case of a young boy who knew he was HIV positive and wanted to be admitted to school made the front page of a newspaper in South Africa in 1997. The provincial as well as the national Ministries of Education reportedly said they had no policy on whether schools would or would not be required to admit such children, despite the fact that there is a published national policy on AIDS in schools and that the new South African constitution forbids discrimination on a wide range of issues.

Policy needs to be complemented by measures to address discrimination and change attitudes in the education sector as well as the wider environment.

The situation of girls in schools is another example of inequity, and one which is closely related to HIV and AIDS. As Shaeffer (1994) points out:

“A young girl who is forced to have a sugar daddy in order to attend school does not have any chance to decide whether she wants safe sex. She has no control over the risks ... The demand for education for girls may suffer the most because of HIV/AIDS, because their labour is needed in larger households and because they end up marrying at an earlier age as the pool of older eligible women decreases due to illness and death, and as men seek to find younger and presumably uninfected spouses.”

In addition:

“Girls may be encouraged to marry early - because parents want to remove daughters from a dangerous school environment in terms of infection risk and sex education.”

The implications for regional action are clear, in particular finding ways to ensure that policies are translated into practice and supporting changes in approaches used in schools.

3.2 Changing approaches

One of the key aspects of current educational thinking is shifting the emphasis from quantity to quality. In Swaziland, for example, it has been found that improving the quality of education increases enrolment⁷. An anecdote concerning Tanzania also illustrates this point (UNESCO 1995).

“Decreased expenditure on education in Tanzania placed an increased burden on parents to provide money and books. But parents found that they were paying more and more for schooling of decreasing quality. So enrolment went down drastically. The leadership misinterpreted this as ignorance among parents about the value of education and blamed the parents.”

Formal education in the SADC region is still largely based on individual learning and exam performance. Improvements in educational quality require a shift to experiential and participatory learning, improved teacher management and support, improved access to materials and books, stress on group work, social interaction and peer

evaluation rather than competition, and greater co-operation with and involvement of non-formal education methods.

3.2.1 Improving sexual education

A WHO/UNESCO (1994) report on pilot school-based AIDS education programmes makes the following point, which relates equally to the approach to education in general:

“From past experience with school-based programmes to prevent unwanted pregnancy and STDs among youngsters, there is ample evidence that the traditional emphasis on imparting factual information by teachers to a largely passive audience of students is unlikely to bring about the desired changes in attitudes and behaviour. Situations associated with high risk behaviours that lead to HIV infection and AIDS are of a complex interpersonal nature. To avoid or successfully negotiate such situations requires certain motivations, attitudes and skills, as well as a supportive social environment. These are hardly available through the traditional health education programmes which primarily aim at imparting information.”

Sexual interaction and education have always been contentious issues, and problems of unwanted pregnancy, school drop-outs, early marriage, and abuse of power by teachers have all caused considerable problems in the educational system. AIDS has renewed debates about these issues and helped to stimulate change. The churches in the region now acknowledge that sexual education should be promoted, and there has been renewed interest in traditional initiation practices in modern guise that could contribute to non-formal methods of sexual education. A consensus is emerging that sex education will not encourage early sexual experimentation and that it can in fact encourage restraint (Sichone and Haworth 1996).

3.2.2 Equipping schools for change

Attempts to introduce sexual education have often foundered because teachers and parents are inadequately prepared, or methodologies are unsuited to the issue. Some SADC member states have education sector policies, for example, in Botswana and Swaziland, Family Life Education (FLE) has been introduced as a strategy in the prevention of teenage pregnancy. But the success of FLE has been inhibited because it is an optional subject and because teachers do not feel adequately prepared to handle the topic (Molosi et al. 1995).

Effective strategies in schools may be counteracted by factors operating outside the school environment. In Zimbabwe' well-planned and executed programmes in schools are rendered less effective because of the policy of not providing condoms to under 18s. And changes in group norms achieved in schools will only be maintained if they are supported by matching changes in norms in the wider community.

3.2.3 The role of peer education programmes

There is growing awareness of the need to change the approach to sex education in the region. In Zambia, for example, new methodologies have been instituted throughout the school system⁸, based on a recognition that sexual behaviour and gender relations are influenced more by peer, cultural and social factors than by individual knowledge. Peer education is perceived to provide more effective interventions because peers can:

- provide support and social learning;
- provide information that is wanted locally and in a form that is understood in the local context;
- question prevailing norms and practices that support harmful behaviour and develop new group norms that support positive behavioural changes;
- develop action to improve the wider social and cultural environment.

In preventing HIV transmission and AIDS education in particular, the peer approach can redefine group norms to encourage behavioural changes and help individuals to acquire and use the behavioural skills they need. Unfortunately many groups have initiated peer education programmes with the intention of persuading young people not to have sex. Participatory approaches that allow groups of young people to develop their own thinking about the norms they want to achieve and to evaluate their actions are more likely to be effective.

Before embarking on school-based programmes, planners need to consider whether the school environment is equipped to change or shift group norms in sexual behaviour, what other sectors might reinforce or undermine them and whether school-based interventions can be linked to a broader set of programmes that relate to the wider societal factors that have the predominant influence on sexual interaction.

3.3 Changes to the curriculum

In addition to changing approach, education also needs to respond to HIV/AIDS by revising and changing the curriculum and, in particular ensuring that it meets the needs of those outside the formal school setting. This includes those not enrolled in school, who are absent or have dropped out, those working at home or in jobs, those who are orphaned, and those unable to afford to attend school. To cater for these children, school systems will need to provide more inexpensive and informal programmes.

Assumptions about educational development also need to be re-examined. With shorter life expectancies and pressures to go out and work earlier, assumptions about the long term investment in a system based on "basic" education followed by a period of vocational and skills training are less valid.

In terms of what is taught about AIDS itself, a UNESCO report (1994) recommended a balance in the curriculum between basic knowledge about the virus (25%), compassion and support for those infected (25%), and attitudes and skills that lead to responsible behaviour and prevent the transmission of the virus (50%).

3.4 Improving health at school

A number of studies have found that a few simple measures—deworming, and the provision of iron and food supplementation—can have a significant positive impact on enrolment, efficiency and educational outcome. Related to this, in the SADC region, is providing children with better knowledge about health issues and health care, especially since more and more of them are involved in caring for people with AIDS at home. Simple advice about practical procedures not only improves care, but also reduces discrimination: Malawi is one country that has particular experience of this.⁹

However the impact of illness in general on education has not been well documented. even though it is clear that levels of tuberculosis, malaria and chronic ill health are increasing rapidly in the region and, in some ways, pose more of a problem than AIDS.

Mukaka and Kilikiti (1995) writing about Zambia, argue that there should be more in the curriculum on primary health care and treatments, as both teachers and pupils are more likely to become carers themselves.

3.5 Impact of HIV/AIDS on learning ability

Those children born to HIV positive mothers who are themselves infected will place an additional burden on the school system, because a substantial proportion of them—73-95%—and show neurodevelopmental abnormalities requiring specially adapted or remedial attention (Independent Schools Council proposal undated).

4. Conclusions

1. It appears that, so far, HIV/AIDS has not had a major impact on the numbers of students or teachers but it is difficult to separate the impact of AIDS from that of other factors such as falling enrolment and increasing drop-out. The impact of HIV/AIDS on quality of education is also difficult to assess in the overall context of declining quality and resource constraints. However, it is expected that reductions in demand for and supply of education (caused by a variety of factors including AIDS) will not necessarily match and this may lead to increased randomness of educational provision.
2. Qualitative impacts of HIV/AIDS have been noted in the education sector. These include adverse psychological effects on teachers resulting in stress, poor performance and poorer quality of teaching, the additional strain of dealing with increasing numbers of orphans and with HIV positive children who may suffer from neuro-developmental problems, more sporadic attendance by pupils required to care for sick family members or work, and increased risk of HIV to girls who sell sexual favours to fund their schooling.
3. Implementing existing policies to improve the quality and effectiveness of education would play an important role in reducing susceptibility to HIV. These include reducing inequality of educational access and opportunity, improving gender understanding and attitudes, and changing the approach of education from one that focuses on information acquisition, individual academic achievement and competition to one that emphasises social interaction, group work and relevance to people's lives.
4. Sex education and education about HIV/AIDS would also benefit from this refocus in approach, since experience suggests that imparting factual information without also addressing attitudes and providing skills will have little impact on sexual behaviour. AIDS has resulted in greater acknowledgement in the region of the need for sexual education in schools, traditionally an area that has always been controversial.
5. To implement effective sex education, teachers need appropriate skills and practical support.
6. Behaviour change requires social support. Effective programmes in schools will only translate into sustained behaviour change among school students if supported by changes in norms of behaviour in the wider community. Programmes in schools will have a limited impact unless they are part of a broader educational programme in society at large.
7. The curriculum and the structure of education need to change to be of relevance to the needs and situation of the region, and this has been highlighted by HIV/AIDS. For example, meeting the needs of the increasing numbers of orphans, out of school youth and working children will require more flexible approaches to education and greater use of non-formal programmes.

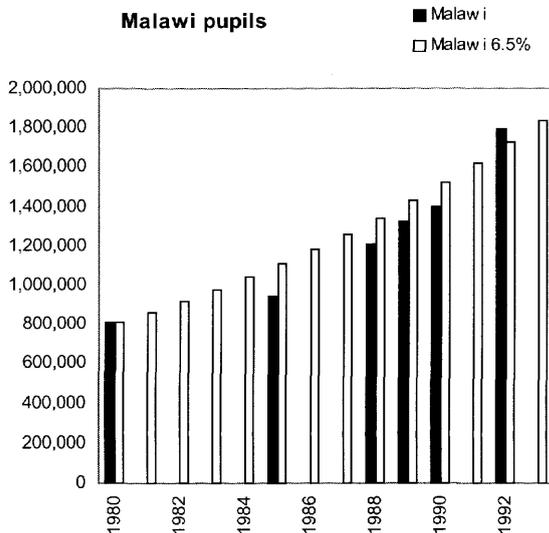
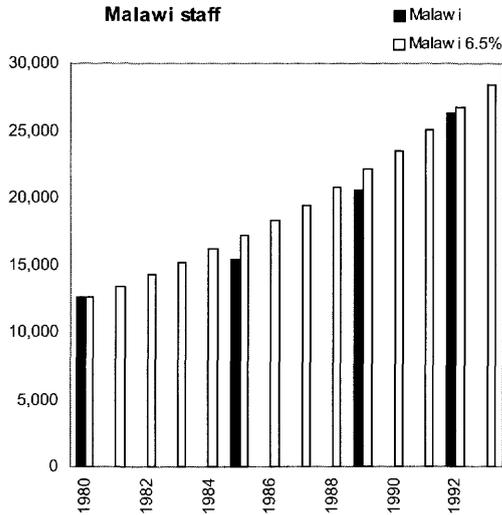
8. As more people become sick with HIV-related illnesses and are cared for at home because health services cannot cope, the role of schools in teaching children about care and practical treatment will become more important.
9. Education planning in all countries in the region is hampered by lack of data. The first section of this paper shows clearly that data is inadequate to support assessment of impact and future planning, and there is scope for regional and national research to address information gaps. Related to this is the need for a policy framework for analysis of the interaction of factors, including HIV and AIDS, on the education sector.
10. Research questions of particular relevance for the SADC region range from the extent to which schools should be involved in preparing children for health care, identifying the most effective approaches to education about safer sex and sexual interaction, to the most effective ways school-based activities can be reinforced in the community.
11. The story of the South African schoolboy with HIV also illustrates the need for clear policies, and their implementation, regarding discrimination, and regional action could do much to support policy development and implementation on this and other issues, such as gender.

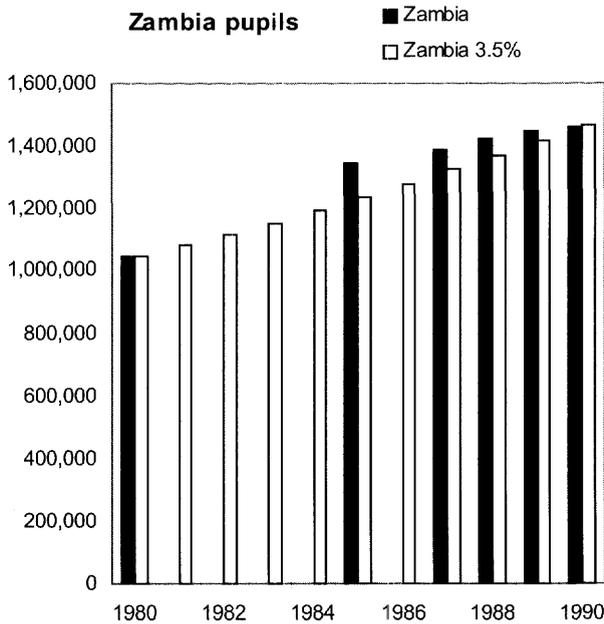
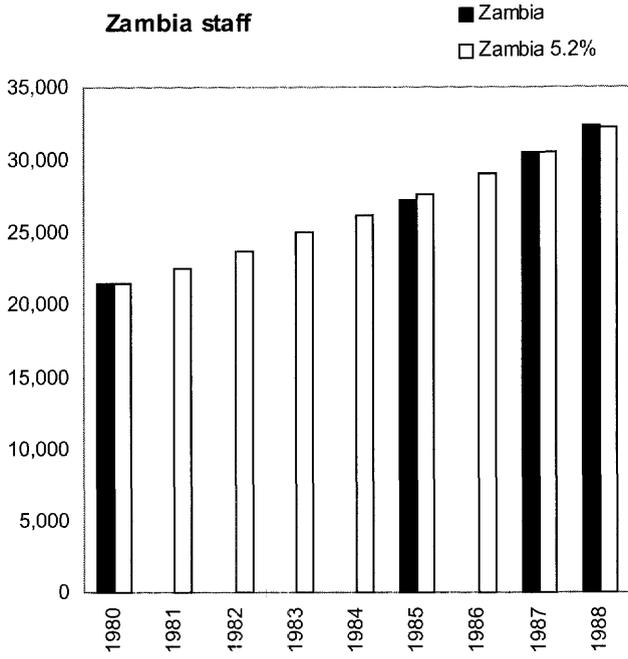
Country	Year	Schools (1)	Teaching staff			Pupils enrolled			Pupil/ teacher ratio (8)
			Total (2)	Female (3)	%F (4)	Total (5)	Female (6)	%F (7)	
Malawi	1980	2,340	12,540	...	...	809,862	333,495	41	65
	1985	2,520	15,440	5,124	33	942,539	408,727	43	61
	1988	...	...	...	...	1,202,836	536,477	45	...
	1989	2,693	20,580	6,995	34	1,325,453	593,539	45	64
	1990	2,906	...	...	...	1,400,682	633,127	45	...
	1992	3,118	26,333	9,064	34	1,795,451	847,974	47	68
Mauritius	1980	267	6,379	...	...	128,758	63,033	49	20
	1985	280	6,450	2,763	43	140,714	69,528	49	22
	1990	289	6,507	...	...	137,491	67,936	49	21
	1991	290	6,369	2,842	45	135,233	66,720	49	21
	1992	283	6,272	2,888	46	129,738	64,066	49	21
	1993	281	5,931	2,779	47	125,543	62,000	49	21
Mozambique	1980	5,730	17,030	3,714	22	1,387,192	590,101	43	81
	1985	3,679	20,286	4,390	22	1,248,074	546,101	44	*63
	1990	3,441	23,107	...	...	1,260,218	542,908	43	55
	1991	3,547	22,236	5,136	23	1,217,364	519,927	43	55
	1992	3,384	22,474	5,133	23	1,199,476	514,162	43	53
	1993	3,466	22,396	5,127	23	1,227,341	521,422	42	55
Namibia	1986	...	...	...	...	294,985	...	...	...
	1989	1,134	...	...	...	307,407	160,228	52	...
	1990	...	...	...	...	313,970	163,291	52	...
	1991	...	...	...	...	339,804	172,565	51	...
	1992	1,213	10,912	7,087	65	349,167	176,160	50	32

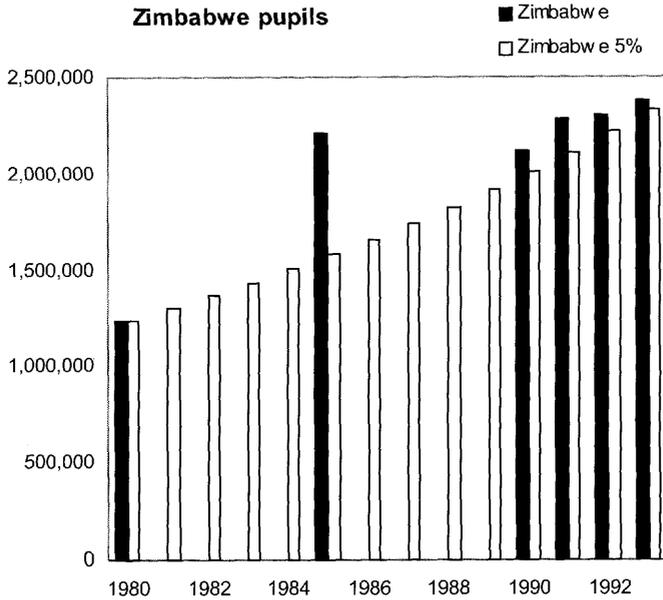
6. Annex 2: Individual Country analyses

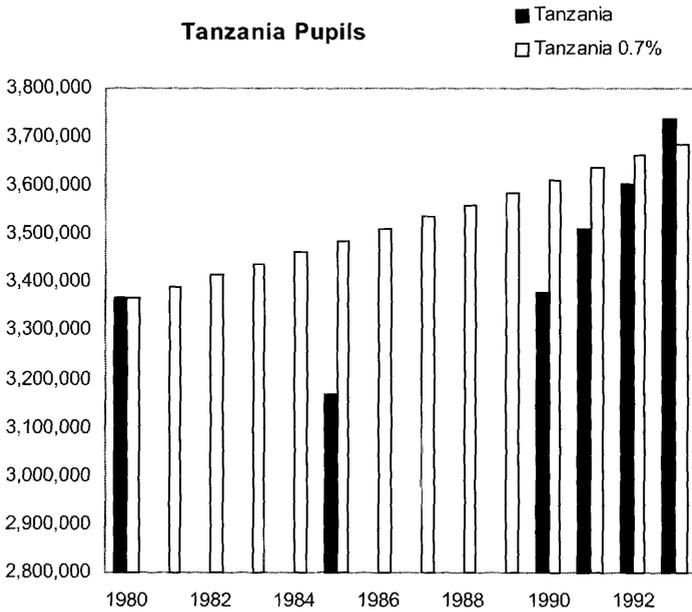
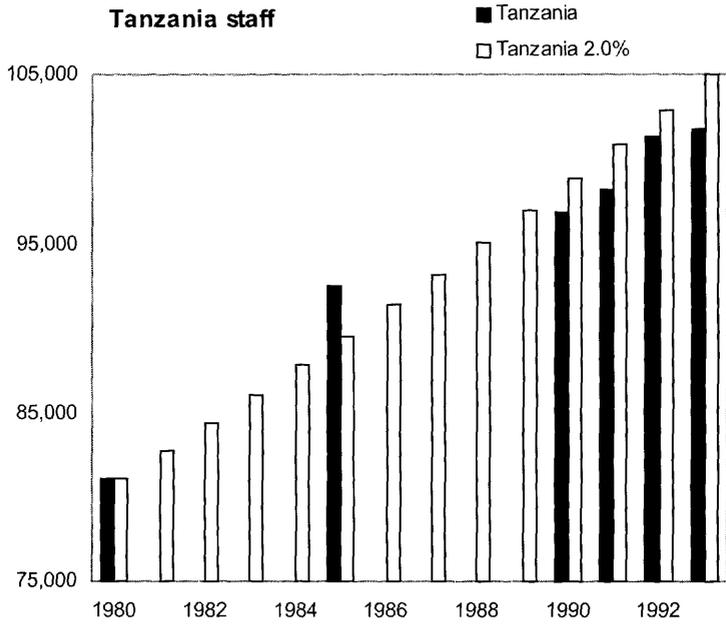
(from table in Annex 1)

Coloured bars represent the true figures, white bars represent the nearest mathematically exact growth rate based on the starting figures in 1980.









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8. Endnotes

- 1 See, for example:
 Priorities and Strategies for Education: A World Bank Review, The World Bank 1995;
 World Education Report 1993 UNESCO;
 Education and Training in the 1990s: Developing Countries' Needs and Strategies, UNDP Policy Discussion Paper 1989 from the Education Development Center;
 Investing in the future: setting educational priorities in the developing world, Jaques Hallat, 1990, UNDP/UNESCO.
 The main focus of the The World Education Report 1995 (UNESCO) is on educational opportunities for women and girls. The Report examines global trends and developments in female access to formal education in both industrial and developing countries, focusing in particular on male-female disparities and 'gaps' in key indicators (literacy rates, enrolment ratios, years of schooling, school retention and dropout, fields of study), as well as on girls' experience of the educational process itself and on the relationship between this process and adult life chances.
- 2 Note that the population growth rates in the region are between 2.11% and over 3% per year. The increases in the numbers of staff and pupils over the whole period in every country are in line with that range, with the exceptions of Mauritius, Angola and Mozambique.
- 3 There were 101,816 teachers in Tanzania in 1993 (see tables in Appendix). The growth rates that have occurred for the last 13 years in supply would give 200,000 teachers in the year 2020.
- 4 Referenced in original text.
- 5 Referenced in original text.
- 6 See, for example, the International Conference on Education in 1990, and numerous statements made at recent international conferences on Population (Cairo), the Environment (Rio), and Women (Beijing).
- 7 Personal communication with Cooper Dawson, Ministry of Education, Swaziland.
- 8 Interviews with Ministry of Education, Lusaka, September 1996.
- 9 Personal communication with Elizabeth Reid, UNDP AIDS & Development Programme, August 1996.

Background Studies No 4

Medical drugs for HIV/AIDS and opportunistic infections

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1. Context

This paper examines the need for a SADC role in medical drugs for HIV/AIDS and associated infections. It discusses problems at national level that would benefit from collaboration between countries of the region or from regional action, and highlights areas where regional harmonisation would be advantageous. The paper focuses mainly on the public and private health sectors although there are ramifications for other sectors such as finance.

Elements of the drug management cycle, particularly those related to HIV/AIDS are considered, and the paper points to the need to establish regional drug policies in general rather than policies for HIV/AIDS and STD drugs alone. The paper emphasises the importance of regional efforts to overcome problems with medical drugs and the conclusions include recommendations for specific action at regional level.

2. Regional requirements and problems

The region faces a number of problems related to medical drugs in general. These include non-availability of drugs, including those required to treat STDs and illnesses arising from HIV infection. The main reasons for this are government budgetary constraints and problems with drug supply management structures. Most countries have made progress with establishing essential drug policies, but systems for drug procurement, storage, distribution and quality assurance need to be strengthened.

Only a few countries in the region have sophisticated pharmaceutical manufacturing capacity and capability, and the region mostly relies on imports for its essential drug requirements. Countries that do have manufacturing capability still rely on imported raw materials that are not always available in the right quantities at the right time. The landlocked nature of some countries in the region exacerbates this problem.

In relation to drugs for HIV/AIDS specifically, there are a number of additional issues to be considered. First, drug treatment for people with HIV infection and AIDS can improve and maintain quality of life. Second, treatment of STDs and RTIs, which increase HIV susceptibility, can reduce the rate of HIV infection.

However, drugs for people with HIV and AIDS are often expensive, particularly those aimed at treating the virus itself. Anti-viral drugs also require expensive diagnostic and laboratory facilities if they are to be used properly. The infrastructure for correct use of drugs, including those for AIDS, is often not available. Drugs to treat common illnesses associated with HIV, and to treat STDs are also not always available.

Priorities for drug availability and treatment guidelines for HIV/AIDS and opportunistic infections are not consistent within the region, leading to movements of people between countries. A common approach would enable essential drugs to be purchased in larger quantities, reducing unit costs.

3. Drug policy issues

To achieve a consistent strategy across the region, governments will need to make choices about a number of issues. Some of the most important considerations are outlined below.

3.1 Availability and accessibility

Most countries in the region have Essential Drug Programmes and National Drug Policies,¹ and these have been critical to improving access to affordable and appropriate drugs.

Many of the drugs required for treatment of HIV patients and opportunistic infections are available in the region, and to some extent they overlap with drugs used for other common infections and are already included on essential drug lists for primary care. In Botswana, for example, 65% of the drugs used for the management of HIV-related opportunistic infections are on the essential drugs list. No country in the region currently offers free access to anti-virals used directly in the treatment of HIV itself.

However, as noted above and discussed in more detail in the next section of this paper, there are problems with drug supply and management in the region which affect access and availability. For example, in Botswana, of the list of essential drugs commonly used in the treatment of opportunistic infections only 15% were actually available at primary care level. The problem of access is exacerbated where personnel may only prescribe specific drugs.

One approach to improving availability and access, being tried in South Africa, is contracting out procurement and distribution functions to private companies. In some countries people are shifting towards using the private sector because of problems in public sector health care delivery, one of which may be poor availability of drugs. However, the private sector may not be the most appropriate approach to ensuring the provision of essential drugs.

3.2 Drugs are not the only cost

In developing policy for HIV/AIDS treatment, consideration needs to be given not only to the costs of the drugs themselves but also to associated costs of distribution, training health personnel to prescribe them appropriately, and laboratory and diagnostic tests². The costs of treatment at a hospital are also high and this means that treatment of patients with opportunistic infections at higher level hospitals will not be sustainable. For this reason other methods of treatment and support need to be explored.

3.3 Local treatment needs to be improved

Alternative approaches to hospital treatment focus on local treatment, especially of the 90% of illnesses that people with HIV infection develop in the early stages of the diseases which can be treated at the primary care level. Even where drugs are

available at the primary care level, people may still seek treatment from higher level facilities—in one study in Soweto it was found that 80% of people attending a major hospital could have been treated with available drugs at the primary level—and this also needs to be addressed. There are also major implications for local treatment as more people develop more serious AIDS-related illness, since the workload of hospitals is already estimated to have increased by 15-20%.

3.4 Care for the chronically ill

A third issue for policy consideration is care of people with chronic illness, already increasing before AIDS was a problem, as patterns of illness shift from acute infections to chronic diseases. Referring people with AIDS to provincial and central hospitals poses great problems, not only for hospital workload, but also for patients who face exposure to tuberculosis and other infections. The social consequences of treating people far from home and family is another disadvantage of referral to tertiary level.

Where HIV-related conditions can be treated at district hospitals, staff at these facilities will require training and support to diagnose, counsel and treat patients with opportunistic infections rather than referring them to a higher level.

3.5 Primary and home care

While the principle of shifting care from central levels to health care clinics and the home has been widely accepted in the region, policy needs to be developed concerning the extent of decentralisation and mechanisms for supporting decentralised care, including training for health workers and provision of the necessary drugs.

In the context of decentralisation of care for people with chronic illness, support for home-based care of HIV and AIDS implies a change in the role of health centres, from receiving and treating acute infections to providing support to families, including suitable medical drugs, to enable them to cope with care for the chronically ill.

There are also concerns about prescribing drugs at local level, for STD or TB or HIV-related illnesses. Approaches are needed to ensure that staff at local level can prescribe these drugs. Another issue to be addressed is purchase of drugs from vendors outside the health services. The need for appropriate training and education for people to use drugs effectively is huge.

3.6 Tuberculosis

The rapidly re-emerging problem and increasing impact of tuberculosis raises drug-related issues. New approaches, such as DOTS (Directly Observed Therapy, Short course), are being tried in the region to improve the effectiveness of treatment, but there are no regional policy developments in this area.

3.7 Post-exposure therapy

HIV transmission can also occur in health care settings through “needle-stick” injuries or by other percutaneous transmission. In some countries in the world, health workers exposed to risk of HIV in this way are offered post-exposure therapy, and the region needs to develop a rational policy on the use of drugs after such exposure.

4. Treatment and management issues

4.1 Drug treatment options

Key opportunistic infections in the region associated with HIV/AIDS, identified through a survey of key stakeholders in SADC countries, include tuberculosis, vaginal candidosis, herpes simplex virus and other STDs, pneumocystic carinii pneumonia, PCP, persistent diarrhoea, thrush, and cytomegalovirus. Most present to primary or district level facilities, but there are no figures available for the numbers of cases or their overall treatment costs. (See Appendix A).

4.1.1 Drugs used

Drugs commonly used to manage these conditions are anti-virals, anti-fungals, TB drugs and antibiotics, with the first two being the major contributors to drug costs. Data collected showed that many of these drugs were not available at the primary health care level, and this issue requires serious attention. Many can also only be prescribed by doctors and medical specialists and this further limits their accessibility to patients at primary care level.

4.1.2 Drug kits

A number of SADC countries use the drug kit system to improve availability in health facilities. In Tanzania, for example, the kits are uniform and packed and procured in Europe. One of the disadvantages of this approach is the inability to meet specific drug requirements at local level related to local patterns of illness, and this creates problems of over- or under-supply of some drugs. In some places consideration is being given to replacing this approach with a requisition system where drugs are packed at Regional Medical Stores. And in Kwazulu Natal in South Africa, a drug box has been developed by health workers involved in home-based care programmes which contains drugs approved for use by higher level health personnel.

4.1.3 Harmonising treatment protocols

Treatment protocols and clear referral systems need to be developed, agreed and harmonised, to manage HIV-related conditions effectively. This will remain important as new drugs and vaccines become available. Drugs used to attack HIV itself rather than the HIV-related conditions (such as AZT) are not at present available within the public health sector in any SADC countries mainly because they are very expensive, but standard treatment protocols may need to be developed if the price is

reduced—in particular to avoid the development of resistance which has been seen in other parts of the world where AZT has been used.

4.2 Drug selection

There is a multiplicity of pharmaceutical drug products available. Health personnel may not have access to objective information about these products, and many are duplicative.³ Drug selection policies, which reduce the number of drugs, have a number of benefits. Managing a reduced number of drugs can improve distribution and supply, reduce costs and improve therapeutic management (see Box below).

ADVANTAGES OF A REDUCED NUMBER OF DRUGS		
SUPPLY	*	Easier procurement
	*	Easier storage, distribution
	*	Better quality assurance
	*	Better dispensing
PRESCRIBING	*	Training much easier
	*	More experience with fewer drugs
	*	Easier drug information
	*	Easier adverse drug reaction (ADR) reporting
	*	No irrational alternative drugs
COST	*	Improved patient compliance
	*	Essential drugs are usually cheaper
	*	Economies of scale (bulk-buying)

ASSESSMENT GUIDE

THE DRUG SELECTION PROCESS

- How many different drugs are available? What is the range of drugs currently available? Are there "duplicate" drugs? Are there combination drugs for problems that could be treated with a single drug? Are there combination drugs that will dramatically improve compliance?
- How are the drugs selected? Is there a formalised process or is the process informal? What criteria are used? Is cost a factor? Can the country afford the selected drugs?
- Who selects the drugs for national campaigns? The individual practitioner? The local health authority? Hospital pharmacists or Pharmacy and Therapeutic Committees? A procurement clerk at national level or a pharmacist?
- What kinds of drug information are available? Is the information up to date and unbiased? Do pharmacists and medical practitioners know where to look for information about drugs?

Effective drug selection can make a major contribution to cost-effectiveness of management and palliation of HIV/AIDS. The process of developing an essential drugs list, selecting from the large number of drugs registered in a country those that are effective for the majority of health needs, can be applied to drugs used in the treatment of STDs, TB and HIV/AIDS-related infections. So, for example, of 200

drugs available, only 20 or fewer might be considered essential. Rationalisation of drug policy and essential drug selection in the region has the potential to provide substantial benefits in terms of drug manufacture, procurement, expenditure and use.

4.3 Drug manufacture

The majority of required drugs are not manufactured in the SADC region. Where drugs are manufactured locally, the active ingredients usually have to be imported. Only South Africa, Zimbabwe and Lesotho have manufacturing capabilities. In theory, South Africa and Zimbabwe could provide many of the drugs needed in the region, but substantial investment would be required.

The region will continue to rely on the major multinational manufacturers unless special importation policies are established and implemented to encourage the availability of drugs from other sources. The multinationals offer various reasons why such strategies should not be encouraged, for example the dangers of counterfeit drugs being introduced.

Developing the region's capacity for manufacture of pharmaceuticals faces a number of obstacles. A major one is likely to be opposition from the multinational manufacturers to local production of generic drugs, in order to protect market share. Other constraints include:

- Shortages of imported raw materials because of logistical problems.
- Quantities imported may be small and therefore uneconomic.
- Substantial investment in capital equipment procurement and maintenance is required for drug manufacture.
- Markets for locally manufactured drugs are limited to domestic demand, since SADC countries import from overseas goods that could be supplied by their neighbours.
- Drug donations from donor agencies are usually tied to donor country suppliers, denying local manufacturers the opportunity to participate and increase their manufacturing base.
- Some governments offer incentives and subsidies to national companies for the export of drugs on international tenders, which gives them an advantage over local manufacturers in tenders in their own countries.

Despite these problems, the local pharmaceutical industry has the potential to make a substantial contribution in the region in terms of:

- Local manufacture of tablet, capsule, injection and liquid formulations.
- Formulation development to produce drugs that are off patent.
- Establishing and strengthening drug quality control facilities.
- Investing in good quality manufacturing equipment and in personnel.
- Systems development for efficient production.
- Liaison with research institutions.
- Production of simple raw materials such as starch, lactose, liquid glucose and essential oils.

4.4 Quality control

Pharmaceutical manufacturers are statutorily responsible for product quality, but effective quality control is expensive and, in many countries, manufacturers do not apply adequate quality control measures. To be cost-effective, quality control requires sufficient scale of manufacture to include the costs. This is an obvious area for regional collaboration, and there are four quality control laboratories in Africa, in Zimbabwe, Ghana, Nigeria and Cameroon. However, these facilities are under-utilised both nationally and regionally for reasons that include lack of a proper administrative and legal framework, poor links with drug regulatory authorities, inadequate resources and absence of a communications network on drug quality.

A number of areas could therefore be considered for regional action. Self-financing mechanisms for quality control facilities, exchange of information on drug quality, implementing the WHO drug certification scheme and linking national and regional quality control laboratories are just some of these.

4.5 Drug procurement

Effective procurement means obtaining the quantity and quality of drugs required at the right time and at the lowest possible cost. Questions to be asked to determine the effectiveness of drug procurement are listed in the Assessment Guide in the following box. Studies need to be carried out to provide comprehensive information for the SADC region on these issues.

ASSESSMENT GUIDE

ASSESSMENT OF PROCUREMENT ACTIVITIES

- How much of how many kinds of drugs are procured each year? What proportion of drugs are imported? Donated? Manufactured?
- What are the unit prices paid for these drugs? How are these prices determined? Tenders? Supplier quotes? How do these prices compare with commercial and retail prices? How do they compare with prices paid by programmes in other countries?
- How often are there shortages because drugs are not delivered on time? Is this because the orders are placed too late? Suppliers respond too slowly? Suppliers fail to deliver on time? Is there a system that monitors the efficiency of suppliers?
- Who are the people responsible for drug selection, order quantities, technical specifications and contract terms? Who monitors the orders? Arranges finance? Sets quality standards? Are their training and experience adequate for the jobs they do?
- Are the facilities adequate? Is there adequate space? Filing capacity and record-keeping? Facilities for printing, copying or reproducing forms and records?

In addition, collaboration and joint efforts in the region are required to improve procurement practices and overcome the following problems:

- Lack of data about previous purchases and inadequate purchase records.
- Poor quantification, so that individual drugs are over- or under-used.
- Hold-ups in import procedures.
- Failure to order essential drugs and ordering of expensive, non-essential drugs.
- Skewed procurement requirements because of donated drugs.
- Lack of training and of trained personnel in effective procurement.

4.6 Drug distribution

The distribution cycle covers all activities from receiving drugs from the supplier to provision at treatment points in the health system. Reports on consumption feed back into procurement. All activities in the cycle are inter-related, and poor planning and co-ordination at any stage adversely affects the whole distribution system.

ASSESSMENT GUIDE

ASSESSMENT OF DISTRIBUTION ACTIVITIES

- How is the system arranged? How many levels are there in the distribution system? How far apart in time and distance are the levels?
- How often are there stock-outs (shortages) at the central warehouse? At regional stores? At individual peripheral points?
- What percentage of products exceed their expiration date before being consumed? Are there procedures to minimise these losses?
- What inventory records exist at each level of the health care system? Who maintains these records? How accurate and how current is the information? How useful are these records? Do they supply the information needed for procurement and distribution decisions?
- What are the stock levels at the treatment points in the health system? Are these high/low? What are the holding costs associated with the inventory? Do stock levels vary from one part of the country to the other?
- What percentage of deliveries is routine (weekly/monthly/ quarterly)? What percentage is "emergency" deliveries? Are limited transportation resources being used unnecessarily for unscheduled deliveries?
- What kinds of transportation are available? What alternatives are there? What does transportation cost?

The effectiveness of the distribution system can be affected by the following factors:

- Design of the distribution network (levels, degree of centralisation, geographic and population coverage).

- Information and inventory systems (in particular balancing holding adequate stocks and the costs of maintaining stocks).
- Storage planning (selecting sites, design of facilities, handling systems, determining what drugs are kept at each site).
- Transport management (modes of transport, organising routes and schedules to make best use of transport available, vehicle maintenance).

Operational research, development of model approaches and training are areas where regional collaboration could have benefits in terms of improving drug distribution.

**POTENTIAL ADVANTAGES OF CONTRACTING OUT
DRUG PROCUREMENT AND DISTRIBUTION**

- The contractor takes responsibility for all insurance of stock until delivery at the service point, hence overcoming the risk and the self insurance policy of public sector authorities.
- The contractor is responsible for ensuring continuity of services and will not be affected by public sector labour disputes.
- The contractor is responsible for the distribution system which decreases the costs of public sector transport, which is a major cost component in the distribution cycle.
- The contract can include aspects of staff development and the strengthening of resources as specific clauses.

CAUTION

Facilities and equipment can remain the property of the public authority, as well as some of the staff being employed by it. These precautions are necessary to ensure continuity of service in the event of poor contractor performance.

4.7 Drug information

It is generally accepted that drugs or medicines comprise the active substance plus information. However, drug information is a component of health services which is often neglected. Language, poor accessibility of the public to information, and lack of information at the dispensing point are all problems, compounded by inadequate resource allocation to information provision because it is considered, incorrectly, to be a low priority.

The establishment of a regional drug information unit to provide bulletins, compare products, evaluate treatments and disseminate uniform information in the region could play an important role.

5. Home-Based (Local) Care Programmes

A home-based care (HBC) programme offers health service support for the care of a patient with HIV/AIDS at home and to the family, through regular visits. Most health facilities in the SADC region will not be able to cope with the growing number of people with opportunistic infections. In Tanzania, for example, more than a third of hospital beds are occupied by people with underlying HIV infections. With the rising incidence of chronic ill health, including HIV and AIDS, HBC is becoming an increasingly important strategy for care and treatment in the region, although it is not a substitute for hospital care.

A number of SADC countries, including Zimbabwe, Zambia, South Africa and Uganda, have implemented and evaluated HBC programmes for people with HIV/AIDS. These programmes have been established to provide care for people after discharge from hospital sometimes in conjunction with TB units that provide HBC. They can provide a number of advantages, including contact tracing, ensuring that there is follow-up of patients who are discharged, addressing psychological and spiritual as well as physical needs.

However, effective home care requires back up from trained health centre and dispensary staff, and provision of knowledge, resources and drugs to care for people with a variety of chronic conditions. As already noted earlier in this section, this requires policy change with regard to the role of primary health centres and personnel, and prescribing practices.

A pilot HBC study in Kwazulu Natal in South Africa found that HBC had certain limitations:

- Logistical problems—contact with the rural hospitals proved difficult.
- Overworked staff—HBC placed additional pressure on staff in terms of time and emotional resources required for counselling and support of families.
- Poor quality of data about HIV/AIDS—due to possibility of confidentiality being threatened.
- Transportation—HBC placed heavy demands on hospital transportation.
- Lack of staff—and lack of adequate training for staff.
- Remoteness of patients' homes—in some cases staff had to walk long distances to visit patients whose homes were not accessible by road.

6. Economic implications

Advances in the management of HIV/AIDS have been matched by increases in costs involved. More effective diagnostic tests are also more expensive, and more advanced treatment and drugs are more costly and require greater professional inputs.

The range of infections in patients with HIV/AIDS is very wide, and the cost of treatment and long hospital stays is high. The annual cost of treating an adult with AIDS varies depending on the setting and reflects variations in quality of care, from an estimated US\$32,000 in the US, to US\$393 in sub-Saharan Africa, in 1990-1991. Unfortunately there is no data to compare costs of treatment between countries in the SADC region, although variations do exist on the basis of different levels of donor inputs to national AIDS programmes.

The additional financial burden of providing extra personnel and drugs fall primarily on the public health sector in countries in the region, since affected people are often denied private medical cover or exhaust the limit of cover available to them.

6.1 Cost extrapolations

In South Africa, it is estimated that there were, at the end of 1994, one million HIV-infected people and that the epidemic doubling time was 15 months. Depending on the policy options adopted for care and treatment by the government and medical insurance companies, the projected health care costs of people with AIDS could be approximately 50% of the total health care expenditure in 2000, assuming:

- Current drug-related costs of treating one HIV/AIDS patient for one year at approximately R 12,000.
- If 400,000 adults have AIDS by the year 2000 the drug cost would be R 7.2 billion at current prices.

The cost to the region as a whole is, therefore, potentially enormous, and the situation may be exacerbated by falling exchange rates or devaluation, which will affect countries' ability to purchase drugs.

6.2 HIV/AIDS notification

Estimating future needs and costs is difficult because of inadequate epidemiological data. At present there is no notification system in place in countries in the region to monitor the spread of HIV. It is now possible to make early diagnosis, and hence to provide those infected with care and monitoring.

However, the question of confidentiality remains a difficult issue.

Similarly, accurate recording of cause of death is necessary for accurate epidemiology, but the public nature of death certificates and the issue of confidentiality and stigma put health workers in a difficult position. In South Africa it has been suggested that disclosure of AIDS or other causes of death be recorded

separately and anonymously on another form, or that there be a relaxation of confidentiality requirements. There has been strong opposition to the latter proposal.

7. Case study

The following is a reasonably typical example of the course of AIDS. It is provided to illustrate some of the problems around the provision and cost of drugs. It is set in Manica Province, Mozambique, from October 1995 to October 1996. It assumes that the drugs are available, that the person returns for treatment when asked, that the person takes all the drugs as prescribed. No analysis is provided of the extra costs of seeking local, herbal or other remedies. Nor is there any assessment of the very large costs associated with the provision of Zidovudine in terms of laboratory analysis of blood samples for monitoring of treatment. In normal life, these factors would often have a key role.

History:

Maria-Vincente, 12 years old, visited a medical practitioner working as a private volunteer in the local clinic. Her mother sent her to the clinic because she was suffering from a vaginal discharge, but what she hadn't told her mother was that she also had a problem of "blood coming into the back of the throat".

Maria-Vincente had not been feeling well recently. In fact she felt tired and weak most of the time. Yesterday she was in trouble at school because she fell asleep in the class. She has been losing weight, which she believed was because she slept very little. She worked mainly at night. When she eventually went to sleep, she woke up regularly with fever and sweating. Her parents arranged "contacts" for her, to help them to pay her school fees. This situation has been going on for the last 11 months. Although it was very difficult for her recently, she was confident that things would improve. At least she would have a good qualification that would help her to get a proper job when she grew up. Her children would not have to work as hard as she did.

On examination:

Maria-Vincente suffered from TB and sexually transmitted vaginal infection (STD), with suspected HIV infection. There were no diagnostic facilities in the district, but a blood sample was taken for screening elsewhere.

Management:

Maria was asked to come back to the clinic a week later to obtain treatment for her infection (the normal supplies were not delivered because the truck bringing the drugs was hi-jacked last week) TB treatment is supplied from the TB clinic in the neighbouring town. The clinic sister filled out a referral appointment for her. She was advised to abstain from sexual activities until her TB treatment was initiated and her infection cleared up. She was also advised never to have unprotected sex in future.

Medical Report (October 95):

Patient : Maria-Vincente; 12 years old; weight 33kgs; STD positive; TB positive; HIV positive; non-pregnant.

Treatment :**STD** (Vaginal infection):

Ciprofloxacin 500mg p.o. stat (*R13.83)
 Doxycycline 100mg bd for 7 days (R1.16)
 Metronidazole 2gm stat (R0.32)

Treatment Cost: R15.31

TB : 2 months course of

4 tablets daily for 5 days per week of
 Isoniazid/Rifampicin/Pyrazinamide (160 tablets = R48.72)
 2 tablets daily for 5 days per week of Ethambutol (80 tablets = R6.59)
 4 months course of 3 tablets daily for 5 days per week of
 Rifampicin/Isoniazid combination (240 tablets = R44.10)

Treatment cost = R99.41

[prices are stated in South African Rands (R)]

Referral to hospital (January 1996):

Genital Herpes : Acyclovir 200mg orally 5 times a day for 10 days
 (50 tablets = R 467.46).

Vaginal Discharge : As per previous treatment (R 15.31)

Treatment Cost = R 482.77

Referral to hospital (April 1996):

Genital Herpes and Vaginal Discharge: Treatment as in January 1996

Treatment Cost = (R 482.77).

Referral to hospital (July 1996):

Genital Herpes : Treatment as in January 1996

Treatment cost (R 467.46)

Oesophageal Candidosis : Fluconazole 200mg ivi stat. Then Fluconazole
 100mg ivi daily for 21 days (R 2,619.24).

Treatment cost = R 3,086.70

Referral to hospital (October 1996):

HIV Symptomatic: Zidovudine 300mg daily as a chronic medication (1 month
 supply of tablets = 90 tablets at a cost of R 574.20 as the antiviral is available
 only in the private sector).

Treatment cost = R 574.20 (the additional and larger lab costs for monitoring
 of treatment are not included)

Total drugs cost for one patient in first year = R 4,741.16.

Cost of the HIV/AIDS drug for the next year:

R 6,890.40 + R 4,273.70 = R 11,631.56.

8. Conclusions

1. There are a large number of issues related to medical drugs, in general as well as for HIV/AIDS in particular, that would benefit from a regional approach. These include harmonisation of drugs policy, and establishing priorities for essential drugs, based on combining data to assess needs.
2. Priorities need to be established for drug availability on the basis of palliation, treatment of bacterial infections, treatment of fungal infections and anti-viral therapy.
3. There is no consistent approach in the region to drug kits and consideration could be given to inclusion of HIV-related drugs in revised essential drugs kits. Consideration also needs to be given to policies regarding prescribing of drugs required to treat HIV-associated illnesses by health workers providing primary and home-based care.
4. Common treatment protocols would reduce movement across borders in search of treatment and ensure that people receive the same treatment throughout the region. Standardising treatment would also support development of a common regional approach to training of health workers and to procurement. The latter could improve drug availability and reduce the cost of drug purchasing through economies of scale.
5. The pharmaceutical industry in the region faces a number of obstacles to growth, such as the high cost of effective quality control, lack of investment, small size of national markets, and regional action and initiatives could do much to support the development of local manufacture.
6. Drug information is inadequate and poorly disseminated. Much could be done at a regional level to improve sharing of information and education of health workers and the general public.
7. Regional collaboration in training, operational research and development of model approaches, could strengthen aspects of drug management systems which are currently in need of improvement, such as procurement, storage and distribution.
8. Combined efforts to improve accessibility and availability of drugs to treat common HIV/AIDS-related infections could include: standardised treatment protocols, review of import duties levied by governments on drugs, review of the contents of essential drug lists and drug kits, development of policies concerning the availability and prescribing of drugs at primary and home care levels.
9. Given the increase in numbers of the chronically ill in the region, including those with HIV and AIDS, regional collaboration to assess the role of home care and the role of the health services in providing support for home-based care will be important, both to contain the costs of care and to ensure that people who are chronically sick receive adequate standards of care.

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10. Appendix A: Drug treatment options for HIV/AIDS and AIDS-related opportunistic infections

Indicator weight = 60kg Indicator age = 30 years [Prepared by School of Pharmacy, MEDUNSA]

DISEASE CONDITION	TREATMENT OPTION	PRESCRIBER	DISPENSER	LEVEL OF CARE
Genital herpes	<p>Acyclovir - 5mg/kg (300mg) i.v. tds x 5 days OR 200mg orally 5 x day x 10 days</p>	<p>Medical specialists and doctors. Its scheduling status warrants that it be prescribed by medical personnel only.</p>	<p>Pharmacists, medical practitioners.</p>	<p>Not on PHC EDL in most SADC countries. No generic equivalent currently available. Available mostly in the private sector, tertiary academic hospitals. Cost of drug is a limiting factor.</p>
Oesophageal candidosis	<p>gentian violet solution OR nystatin suspension qid for 10 days OR miconazole oral gel apply 2-3 times daily for 10 days</p>	<p>Prescribed by PHC nurses, doctors, specialists.</p>	<p>Pharmacists, medical practitioners. Drugs prescribed at PHC level may be dispensed by PHC nurses.</p>	<p>At least one of these drugs is available at PHC level. Is available on the EDL of most SADC countries.</p>
	<p>amphotericin B - 1,0 mg/kg i.v. daily for 10-14 days OR 10mg orally qid OR ketoconazole - 200-400mg daily OR nystatin - one tablet qid - continue for at least 48 hours after symptoms resolve</p>	<p>Prescription of these drugs is limited to doctors and specialists. Fluconazole is sometimes available as an alternative for oesophageal candidosis.</p>		<p>Ketoconazole and nystatin are available on the EDL of many of the SADC countries - availability is limited to district and secondary hospitals.</p>

DISEASE CONDITION	TREATMENT OPTION	PRESCRIBER	DISPENSER	LEVEL OF CARE
Disseminated gonococcal infection	ceftriaxone - 1gm daily for 7 days OR spectinomycin 2g bd x 7 days	Medical specialists, doctors.	Pharmacists, medical practitioners.	Ceftriaxone is available at all levels of care in many of the countries for the management of gonococcal infections and chancroid.
Uncomplicated gonococcal infection	ceftriaxone 250mg imi single dose OR spectinomycin 2g stat OR ciprofloxacin 500mg p.o. stat			No generic equivalent is yet available for both ceftriaxone and ciprofloxacin. Ciprofloxacin and spectinomycin are not on the EDL of many of the SADC countries.
Chancroid	erythromycin 500mg tds x 7 days OR ciprofloxacin 500mg p.o. stat OR ceftriaxone 250mg imi OR spectinomycin 2g imi			

DISEASE CONDITION	TREATMENT OPTION	PRESCRIBER	DISPENSER	LEVEL OF CARE
Early syphilis	benzathine penicillin LA 2.4 MU stat OR doxycycline 100mg bd for 15 days OR erythromycin 500mg qid for 15 days OR tetracycline 500mg qid for 15 days	Medical specialists, doctors, PHC nurses.	Pharmacists, medical practitioners, PHC nurses.	Most of these drugs are available on the countries' EDL lists. Tetracycline is not available in many of the countries.
Late syphilis	benzathine benzylpenicillin LA 2.4MU stat or once weekly for 3 weeks OR procaine benzylpenicillin 1.2MU im daily for 3 weeks OR doxycycline 100mg bd x 30 days OR erythromycin 500mg qid x 30 days	Medical specialists, doctors, PHC nurses.	Pharmacists, medical practitioners, PHC nurses.	Available on the EDL of most of the countries. Erythromycin however is not available on the EDL in many of the countries.

DISEASE CONDITION	TREATMENT OPTION	PRESCRIBER	DISPENSER	LEVEL OF CARE
Tuberculosis (<50kg)	combination tab of rifampicin(R) + isoniazid(H) +pyrazinamide (Z) 4 tabs PLUS 2 tabs ethambutol (E) - 2 month initial phase THEN combination tab of rifampicin(R) 150mg +isoniazid(H) 100mg 3 tabs - 4 month continuation	Doctors, PHC Nurses	Pharmacists, medical practitioners, PHC nurses	On EDL. At PHC level and to specific TB hospitals
(>50kg)	combination 5x tabs of RHZ PLUS E 3x 400mg tabs 2 month initial phase THEN combination R 300mg PLUS H 150mg x 2 tabs - 4 month continuation phase			
AIDS and AIDS-related complex	zidovudine - 500-600mg orally 4 hourly didanosine - 125 - 300mg 12 hourly zalcitabine - 0,75mg 8 hourly	Medical specialists, doctors	Pharmacists, medical practitioners	Available only in the private sector. Not routinely available at tertiary level. NOT on EDL.

11. Appendix B: Acknowledgements

We acknowledge, with sincere thanks, information and contributions from the following individuals and groups.

Ms L Baker and R Burgin, TPS Drug Information Centre, Braamfontein, Johannesburg, South Africa

Mr A Anderson, Windhoek Central Hospital, Windhoek, Namibia

Mr M Banda, Pharmaceutical Services, Churches Medical Association of Zambia, Zambia

Dr W Bannenberg, Public Health Consultant, The Netherlands

Prof P Folb, Department of Pharmacology, University of Cape Town Medical School, Cape Town, South Africa

Mr C Forshaw, WHO representative, Malawi

Ms O Johnson, Princess Marina Hospital, Gaborone, Botswana

Dr A Klouda, London, UK

Dr R Laing, School of Public Health, Boston University, Boston, USA

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Dr M Miralles, Drug Management Program, Management Sciences for Health, Arlington, USA

Ms B Mkwanazi, Medical Research Council, Durban, South Africa

Mr C Pillay, University of Durban-Westville, Durban, South Africa

Ms M Pryce and Ms C Green, ECHO International Health Services, Coulsdon, Surrey, UK

Prof DJ Pudifin, Department of Medicine, University of Natal, Durban, South Africa

Ms P Saunders, Essential Drugs Project, London, UK

Dr H Schneider, Centre for Health Policy, Medical School, University of the Witwatersrand Medical School, Johannesburg, South Africa

Ms B Trapp, ZEDAP, Harare, Zimbabwe

Dr E van Praag, AIDS Division, WHO, Geneva, Switzerland

12. Endnotes

- ¹ Botswana, Kenya, Malawi, Mozambique, Namibia, South Africa, Tanzania, Uganda, Zambia, Zimbabwe.
- ² The costs of the antiretroviral drugs although large are small in comparison with these other costs.
- ³ This refers to the same chemical compound (or one very similar), or drugs with a very similar action in the body being marketed under different brand names

Background Studies No 5

Regional harmonisation of data

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1. Context

1.1 Introduction

This paper examines the nature of HIV/AIDS data and information in the SADC region, and the extent to which data already available are useful to or used by policymakers. It discusses the limitations of existing information and ways in which data could be more useful as a basis for regional policy, planning and programme implementation. The paper argues that the current weaknesses of HIV/AIDS data reflect general problems with the collection and use of data in all fields of development, including lack of relevance and failure to utilise available data for policymaking.

1.2 Defining the problems

Overall, data collection and use in the region have lacked clear focused co-ordination, in part as a result of the multitude of independently funded and conducted discrete programmes of research, which has resulted in a lack of ownership of either policy or data. Specific problems related to HIV and AIDS include:

- Data are weak in terms of explanation, since it is largely biomedical in focus, and this has been reflected in the policy response.
- Data are imprecise and suffer from methodological weaknesses.
- Data do not always reflect the perspectives or realities of the socio-economic groups that are most vulnerable to HIV/AIDS.

Lack of ownership of data and policy is a key concern, in particular identifying ways that SADC sectors can develop ownership of policy research and data management, in order to develop policy appropriate to the regional context. Research agendas and parameters have been largely set by external agencies and the region needs to take the lead in determining research priorities and to strengthen locally-led research.

2. Overview of existing HIV/AIDS data

2.1 Types of data available

HIV/AIDS is a health issue but is also, among others, an economic, social, migration, education, gender, insurance and cultural issue that cuts across different sectors, populations and age groups. Despite this, research has tended to focus on health, with the collection, for example, of seroprevalence data, rather than on these other equally important issues. Research on the impact of HIV/AIDS has often failed to make comparisons with the impact of other factors. This failure to take account of the wider context of HIV/AIDS and of other factors renders existing data less useful than it might be in terms of social and economic planning and development in the countries of the SADC region.

2.2 HIV seroprevalence and AIDS case data

It is widely accepted that, more than with any other illness, there is considerable under-reporting of AIDS¹. In Zimbabwe, for instance, reported cases are thought to represent only a quarter of the real number, and in Mozambique there is almost no medical coverage, and hence no reporting of cases, outside the urban centres. WHO has suggested that the level of under-reporting of AIDS in Africa overall may be as high as 90%.

Accurate data collection and reporting is constrained by poor or patchy medical coverage to identify cases, inadequate facilities to confirm AIDS cases, a shortage of skilled personnel to collate and analyse data, and reluctance to identify AIDS as the cause of death.

There are also problems with HIV seroprevalence data. Although national programmes are required to update seroprevalence data every three months, there is little co-ordination between countries and information about regional trends can only be obtained from databases outside the region. A major source of data about the region is the six-monthly seroprevalence updates produced by the US Bureau of the Census funded by USAID. The reports form part of the Bureau's HIV/AIDS Surveillance Database of developing country data, and comprise research notes, maps and summary tables showing HIV-1 and HIV-2 seroprevalence for "high risk" and "low risk" urban populations in Africa, in addition to low risk populations in east, west, central and southern Africa.

2.2.1 Problems with HIV seroprevalence estimates

Table 1 includes the most recently available HIV seroprevalence estimates. It shows wide variation in HIV prevalence estimates for the 12 SADC countries and discrepancies between data sources, suggesting that better approaches are needed to arrive at national estimates.

In some cases, for example Angola, the data is confusing and earlier data has also been included. Earlier studies show higher prevalence rates than the more recent data, which seems unlikely given the pattern of rising HIV levels in other SADC countries, and the data may reflect methodological weaknesses, such as small sample sizes.

Table 1 Variations in HIV seroprevalence estimates by source					
COUNTRY	GROUP	HIV PREVALENCE	YEAR	SOURCE	
Angola	National	15-20%	1994	Whiteside	
	ANC attendees: Luanda (HIV2)	1% (0.0%)	1995	US Bureau of the Census	
	STD pregnant women: Luanda (HIV2)	1.6% (0.0%)	1995	US Bureau of the Census	
	Pulmonary TB patients (HIV2)	7.9% (0.0%)	1995	US Bureau of the Census	
	Professionals: Luanda (HIV2)	1.7% (0.0%)	1995	US Bureau of the Census	
	Students: Luanda (HIV2)	1.4% (0.0%)	1995	US Bureau of the Census	
	Hospital patients: Andrada (HIV2)	25.9% (3.7%)	1987-88	US Bureau of the Census	
	STD patients: Dundo (HIV2)	10.3% (9.8%)	1987-88	US Bureau of the Census	
	Blood donors: Dundo (HIV2)	6% (16%)	1987-88	US Bureau of the Census	
	Blood donors: Luanda (HIV2)	1% (0.0%)	1995	US Bureau of the Census	
	Botswana	National	15-20%	1996	Whiteside
		Adult prevalence	18%	1995	Wilson and Dube
ANC attendees: Gaborone		28.7%	1995	SAFAIDS	
ANC attendees: Francistown		39.6%	1995	SAFAIDS	
Lesotho	National	1-4%	1994	Whiteside	
	ANC attendees: Quacha Nek, Leribe, Maluti, Mafeteng, Quthing	31.3%, 8.7%, 5%, 10.8%, 9.1% resp.	1994	SAFAIDS/NACP (Lesotho)	
	STD patients: Leribe, Maluti, Mafeteng, Quthing	21%, 30.3%, 48.3%, 30.7% resp.	1994	SAFAIDS/NACP	
	TB patients: nationwide	17.7%	1994	SAFAIDS/NACP	
	TB patients: Leribe, Mafeteng, Maseru	39.8%	1995	SAFAIDS/NACP	

Table 1 (contd) Variations in HIV seroprevalence estimates by source					
COUNTRY	GROUP	HIV PREVALENCE	YEAR	SOURCE	
Malawi	National	6.6%	1995	NACP (Malawi)	
	Adult prevalence	13.6%	1995?	Wilson and Dube	
	ANC attendees: urban areas	18.5-22.5	1995	SAFAIDS/NACP	
	ANC attendees: semi-urban areas	13-29%	1995	SAFAIDS/NACP	
	STD patients: urban areas	57-70%	1995	SAFAIDS/NACP	
Mauritius	STD patients	37-54%	1995	SAFAIDS/NACP	
	TB patients	0.8% 0.3%	1989-91 1989-91	US Bureau of the Census US Bureau of the Census	
Mozambique	National	5-10%	1994	MoH Mozambique	
	ANC attendees: Maputo, Nacala, Tete, Chimoio	2.7%, 10.5%, 18.1%, 15.7% resp.	1994	SAFAIDS/Moz. Epidem. Unit	
	STD patients: Maputo, Quelimane, Tete, Chimoio	3.8%, 13.1%, 37.3%, 30.8% resp.	1984	SAFAIDS/Moz. Epidem. Unit	
	Blood donors	9.8%	1993	US Bureau of the Census	
	National	10-20%	1994	Whiteside	
Namibia	ANC attendees: nationwide	8.4%	1994	SAFAIDS/NACP (Namibia)	
	National	10.4%	1995	SAFAIDS/Aids Analysis Africa;	
South Africa	Adult prevalence	11.4%	1995	Wilson and Dube	
	National	20%	1994	Whiteside	
Swaziland	ANC attendees: nationwide	18%	1995	SAFAIDS/Aids Analysis Africa	
	STD patients: nationwide	26.7%	1994	SAFAIDS/Swazi MoH	

Table 1 (contd) Variations in HIV seroprevalence estimates by source

COUNTRY	GROUP	HIV PREVALENCE	YEAR	SOURCE
Tanzania	National	20-25%	1994	Whiteside
	ANC attendees: Dar es Salaam	16.1%	1993	SAFAIDS/US Bureau of
	TB patients: Bukoba region	57.4%	1993	Census
	STD patients: Dar es Salaam	24%	1993	SAFAIDS/US Bureau of
	Police officers: Dar es Salaam	12.9%	1994	Census
	Female blood donors: national	6.9%	1994	SAFAIDS/US Bureau of
	Male blood donors: national	4.8%	1994	Census
Zambia	National	20-30%	1994	Whiteside
	Adult prevalence	17.1%	1995	Wilson and Dube
	ANC attendees: urban average	27.9%	1994	SAFAIDS/US Bureau of
	STD patients: average	58%	1992	Census
	Paediatric TB patients	68.9%	1992	SAFAIDS/US Bureau of
	Malnourished children: Lusaka	40.5%	1994	Census
Zimbabwe	National	10-12%	1996	NACP (Zimbabwe)
	National	20-30%	1994	Whiteside
	Adult prevalence	17.4%	1995?	Wilson and Dube
	Adult prevalence: urban	30%	1996	Wilson and Dube
	Adult prevalence: rural	15%	1996	Wilson and Dube
	ANC attendees: Masvingo-Chiredzi, Harare	50%-70%, 38.4%	1995	Wilson and Dube
	STD patients: Harare, female, male	50.7%, 71.2%	1995	US Bureau of the Census
	Factory workers: Harare	19.4%	1995	US Bureau of the Census
	Blood donors	2.03%		NACP

2.2.2 “High risk” and “low risk”

The US Bureau defines “high risk” populations as those where there are known risk factors, such as commercial sex workers or STD clinic patients. “Low risk” samples refer to the general population or specific groups such as pregnant women or blood donors.

However, collecting and analysing data on this basis is problematic. For example, characterising pregnant women as a low risk group is problematic, since pregnant women do not necessarily represent the overall low risk population. In some settings in Zimbabwe, Botswana and Malawi for example, pregnant women have the same or a greater level of risk of HIV as STD patients. Other recent data suggests that the gap in infection rates between pregnant women and commercial sex workers is narrowing (Wilson 1993a). Classifying all pregnant women in all countries in the region as “low risk” is, therefore, potentially misleading, and the only truly low risk groups in the population are probably children aged 5-15 years, adults over 55 years, and those in long-term monogamous relationships.

2.2.3 Data from blood transfusion services

The blood transfusion services in each SADC country screen blood donors and are an important source of information about seroprevalence rates. However, data from this source cannot be generalised to the wider population since transfusion services now try to source blood donors considered to be at low risk, such as school students. There is also sensitivity about dissemination of information from blood transfusion services because of concerns that this may deter potential donors.

2.2.4 Occupation

Few country studies are available providing data on prevalence levels by occupation. Mozambique and Angola have gone further than some other countries in the region, testing for prevalence levels in groups such as the military, students and various professionals. Zimbabwe has conducted studies among factory workers and commercial sex workers, and Tanzania among police officers. In Zambia, banks have shown that employees whose jobs involve travel are at higher risk of HIV.

2.2.5 Commercial sex workers

Seroprevalence data showing high rates of HIV infection among commercial sex workers and theories about “core groups” modelling epidemic spread have provided the rationale for programmes targeting sex workers and clients. However, this approach to data about sex workers can increase scapegoating of women as responsible for the spread of disease, and diverts attention from the fact that the epidemic has already spread to greater numbers of women who are not sex workers.

2.2.6 Generalising from existing data

Most data available are from the public sector, and there is relatively little information included from private clinics. In Zimbabwe, estimates of seroprevalence rates of 30%

in antenatal clinic attenders have been generalised to all pregnant women in urban areas (Mbvizo et al 1996). But the antenatal clinic data reflects the population served by larger urban hospitals, mainly women from low-income, high-density suburbs. In contrast, some private physicians report seroprevalence rates among better-off clients at between 5-10%. There is potentially a problem with generalising from available data, although it is important to note that the private sector usually provides health care to only a small proportion of the population.

2.3 Data on sexually transmitted diseases

The rapid spread of HIV/AIDS in sub-Saharan Africa has been associated with the high prevalence of sexually transmitted diseases (STDs) or infections (STIs). Yet there is little data about STD and STI in the region.² Table 2 shows the limited database available on STDs in Zimbabwe, for example.

Table 2 Zimbabwe :	
STD Bibliography (published and unpublished) October 1996	
Subject	Number of Studies
Epidemiology	9
Social behavioural	9
Biomedical	1
Total Entries	19

Source: SAfAIDS

Available STD data have the same weaknesses as those described above for HIV/AIDS data. Lack of standardisation of research objectives and methods makes comparison within and between countries difficult. And while data is not analysed or used to inform prevention programmes, there is little incentive for health personnel to collect it.³

2.4 Data comparability

A number of factors are a constraint on regional comparison of surveillance data, including lack of harmonisation of variables, methods and timing of data collection, and of definitions of HIV and AIDS.

2.4.1 Timing, variables and testing procedures

Some countries find it difficult to update HIV/AIDS data every year because of lack of funding, and comparing 1994 seroprevalence data from one country with 1995 data from another is problematic. Similarly problematic is the use of different variables in different countries. For example, in some countries HIV-1 and HIV-2 are treated as separate, while in others it is not clear whether seroprevalence rates relate to one or the other or both together. Southern Africa is believed to be experiencing an epidemic of HIV-1, but HIV-2 has been reported in Mozambique, Angola and Zimbabwe, and it is not clear to what extent countries are testing for HIV-2. In countries with both, only testing for HIV-1 may result in an under-estimate of HIV seroprevalence. On the other

hand, testing and reporting for both may lead to double counting where joint infections are counted twice.

Where an ELISA test is not confirmed by a second test such as the Western Blot, false positives can result in an over-estimate of seroprevalence. Whereas in Harare, Zimbabwe's capital city, a second or even a third confirmatory test is usual, outside the capital lack of funds or shortages of kits may mean that only one test is done without confirmation.⁴

Even where variables have been standardised, there are other problems with data collection. To protect confidentiality, data in many countries is collected by doctors, creating additional workload where medical personnel are already under pressure and in short supply. Doctors may have insufficient time to collect comprehensive information from patients. If incomplete samples are disregarded for the sake of comparability of data, this can result in a small and unrepresentative sample. Where other personnel have been enlisted to collect data, lack of skills and training has resulted in less than competent sampling.

In addition, there are problems with comparing sub-variables, such as data on age groups, which vary from country to country. There is scope for regional harmonisation in collection of age group data, to be able to differentiate between sub-groups particularly susceptible to HIV.

2.4.2 Mortality data

Southern African countries collect little data on mortality rates. Zimbabwe, for example, only collects mortality data every ten years as part of the national census. It has been argued that mortality data is necessary to monitor the impact of AIDS. So far it has been difficult to assess the impact because hospital reports, on which the census relies, do not give AIDS as the cause of death.

2.4.3 Sampling

HIV seroprevalence surveys are typically based on sample populations not the total population. There are a number of problems arising from this. The issue of generalising from samples of pregnant women has already been discussed. Urban samples conducted in capital cities are unlikely to reflect the situation in other urban areas in the same country. Because samples sizes are usually small, non-random sampling will tend to over-estimate seroprevalence levels; and sampling of patients attending clinics or hospitals is also not representative and may confuse seroprevalence estimates (US Bureau of the Census 1996).

2.5 Socio-economic and cultural data

Not only is there little socio-economic and cultural data related to HIV/AIDS, but only a small range of data is being utilised for policymaking, mostly that concentrating on impact analysis.⁵ The limitation of this approach is that impact analysis can only help in planning for numbers rather than in determining what actions need to be taken by different sectors.

There are several areas where existing data could be used to support strategic decision-making. For example, data on the effects of policy on imbalances in employment between men and women, and in education, both of which have been found to be correlated with HIV prevalence⁶; and data on the effects of migration on sexual behaviour (Simelani 1995).

However, there are also several areas that may have strong links to HIV infection requiring further research. For example, further research is needed to explore the links between mobility and patterns of HIV seroprevalence, the influence of the social environment on sexual behaviour and of other social determinants on the spread of HIV, and to ascertain the impact of AIDS on descolarisation as opposed to other factors.⁷

2.6 Inability to predict epidemic trends

Predicting the course of the epidemic remains difficult. In countries such as Uganda, where the epidemic appears to have stabilised, it is not possible to understand whether the stabilisation of the rate of new infections is a natural feature of the epidemiology of the epidemic, or as a result of programme efforts or other factors.

More recent data suggests that the impact of HIV/AIDS may not result in negative population growth or have such a severe impact on the region's economy as had been predicted earlier (Way and Stanecki, 1994). Refinement of the Disability Adjusted Life Year (DALY) also suggests that the impact of HIV/AIDS on productivity and employment will be far less than that of several other diseases (Klouda 1996).

2.7 Experiences in regional cross-sectoral data collection

There are several practical experiences in the SADC region of cross-sectoral data collection that may provide useful lessons for data collection relating to HIV/AIDS.

The work of the SADC Food Security Unit, provides a useful model for how information can be effectively collected and disseminated to avert disaster at national and regional levels, most notably in enabling member states to take action to avert famine and starvation during the unprecedented drought of 1991-1992 in the region. The Unit has successfully standardised the collection of national data and effectively packaged and disseminated it to member states through regular, readable information bulletins. A key lesson is that standard approaches to data collection and regional analysis and dissemination improve the technical quality and neutrality of information, and allow individual countries to gain a regional perspective on common problems (Mugwara 1996).

Similarly, with regard to nutrition data, the Zimbabwe government established a Task Force for Food and Nutrition to prepare a policy framework based on the premise that food and nutrition issues cannot be confined to one sector, and require a multisectoral approach to research and information dissemination as well as other aspects such as policy reform or advocacy. Future intersectoral structures for developing policy related to HIV/AIDS could similarly determine the nature of the data that are collected and used.

3. HIV/AIDS data collection and development

Two issues are important, collecting and utilising data for development that are relevant to different but interacting sectors, and research that is relevant to the situation of the poor and marginalised.

To address the first of these, consensus must be reached among a wide range of sectors about policy objectives and information requirements, and methods of disseminating the data collected and of assessing the impact of actions taken. This is not easy to achieve, given the different understandings of and responses to HIV/AIDS. To address the second issue requires collection of data in a participatory manner and increasing the interest of policymakers in issues, such as HIV/AIDS, which disproportionately affect the most vulnerable in society.

Shifting HIV/AIDS research and data collection towards an approach that encompasses economic and social aspects also means changing the current view that HIV/AIDS is predominantly a health problem to one that perceives it as a broader development issue.

Additional constraints to collecting data relevant to HIV/AIDS, development and the poor, include the declining allocation of resources to the social sectors in general, and prioritisation of the formal sector in national economic development.

3.1 The link between policy response and data

Judging by the literature, there are four types of policy response, reflected in interventions, to HIV/AIDS: biomedical, behavioural, institutional and societal. These responses are in part formed by the type of data collected, and themselves determine the type of data that is collected (Philipson and Posner 1993). All four have been identified in countries in the SADC region, in varied degrees and combinations. Their influence on data is summarised in Table 3, which also shows the kind of data and analysis that might contribute to the development of more effective interventions.

Table 3 Impact of Different Policy Models on Data Collection

I. Bio-medical	<ul style="list-style-type: none"> - search for vaccine HIV - treatment of HIV/STD - circumcision (rare)
II. Voluntary Individual Behaviour/ Paternalism [e.g. Governments or people should abandon their negative behavioural or cultural traits or adopt new ones such as:]	<ul style="list-style-type: none"> - sensitivity about sex discourses (promotion of safe sex, admission of problem) - openness of policy debate on sexuality and HIV - sexual repression and dis-empowerment of women - learn more about HIV/STDs - provide more information to all concerned - reduce multiple sex partnerships - regulate extra-marital sex - increase home based care for HIV/AIDS affected.
III. Agency-Dependent Behaviourism [e.g. Governments/ institutions should undertake to:]	<ul style="list-style-type: none"> - regulate prostitution (legalise, health, control) - protect human rights of workers (testing, discrimination, etc.) - regulate insurance policies against victimising people - allocate resources to interventions and improved capacities - provide incentives for medical aid, insurance, hospices - promote transparency, accountability (media, literacy, secrecy) - promote research, information and dissemination - promote cultural change - collaborate with NGOs in prevention, care and other interventions - collaborate with other Governments (SADC, WHO, etc.) - develop social security/welfare legislation to provide incentives and disincentives towards positive private and business behaviour.
IV. Structuralist Constraints [e.g. Socially revolutionary change to:]	<ul style="list-style-type: none"> - change major policies (migrants, etc.) - redistribute wealth, resources and social services to reduce HIV vulnerability or drastically reduce poverty - provide voice to poor in policy making - indigenise research and data management, and policy lobby.

3.2 Taking a different approach

Improving the relevance, usefulness, management and application of data and developing alternative approaches are constrained in Southern Africa by limited research skills and resources. There are, however, some approaches that could assist in the collection of policy relevant data in the region.

3.2.1 DALYs

In terms of comparability of data for health, the DALY is a potentially useful approach, since it attempts to prioritise health problems in a logical way. It has also focused attention on methods of defining economically useful data requirements and priorities in disease analysis, highlighting the links between human and economic development. If adapted by Southern African research and policy centres, this approach could be a promising one.

3.2.2 Susceptibility and vulnerability

Another approach is the concept of susceptibility and vulnerability to HIV/AIDS, described in a model that traces the causes and consequences of the spread of the disease in Africa. The model focuses on the labour problem in small farming systems as the key issue leading to poverty, which in turn enhances susceptibility to HIV and vulnerability to AIDS. This approach to analysis requires data relating to the critical factors that increase susceptibility and vulnerability.

3.2.3 Different levels of data management

Most HIV seroprevalence data are focused on the individual level and sample data focus on specific groups. There is little in the way of cumulative time-series based data. The value of data is limited by the use of extremely broad levels of aggregation, such as urban versus rural. Consideration could be given to data collection and analysis that focuses on different levels (see Table 4).

3.2.4 Making economic analysis more useful

Macro- and micro-economic analyses of problems of health and HIV/AIDS have to date been weak. There is a need to combine analysis of economic processes and socio-cultural analysis to increase understanding of behaviour, values and motivations.

Table 4: Strategic Levels for effective Data Management

Individual Level	Same as outlined among all the categories below.
Household/ Family Level	Household Sero-prevalence Dynamics and Diffusion; Incomes and consumption pattern in relation to HIV/AIDS vulnerability; Employment/Labour patterns; Asset bases and access to social services; Inter-household social linkages and dynamics.
Community Level	State and private social welfare structures, traditional support organisations, socio-metric maps, socio-economic differentiation, poverty and wealth patterns. Cultural variables such as matri-lineality, polygamy, circumcision, sex values and behaviour patterns.
Functional/ Economic Zones	Various data as above.
Sub-National Political Regions	(provincial data as above).
National Level	Macro-Economic, Sectoral, Micro-Economic, Human Resources, Consumption/Savings, Foreign Direct Investment, etc.

4. SADC information, data management & policy capacities

Various policy capacity building measures are being undertaken in the SADC region to strengthen policy formulation, analysis, planning and implementation. Development of policy related to HIV/AIDS needs to be linked to these initiatives.

Although there are many research activities underway in the region and efforts are being made to improve databases, there is no overall regional co-ordination to develop an information resource base for effective policymaking, implementation and monitoring impact. Most regional and national policy analysis centres lack access to data compiled at the regional level as well as the skills and infrastructure to process and analyse available data. Another important aspect of building capacity could, therefore, be the development of a regional information and data management programme, following the model of the SADC agriculture and food security sectors. At present there is no SADC body with a clear mandate to co-ordinate research or to ensure standardisation or comparability of data, on HIV/AIDS, STDs or related issues.

5. Conclusions

1. There are a number of weaknesses in existing HIV/AIDS data in the SADC region, in particular a narrow focus on epidemiology and absence of contextual data related to wider socio-economic and development problems, lack of ownership of data reflecting a failure to take the lead in determining the research agenda, and wide differences in methodology and variables between countries creating problems in making comparisons or monitoring regional trends.
2. Joint regional action is required to strengthen data collection and analysis at national and regional levels, to ensure comparability of data, and ensure that research and data focus on issues that are relevant to the broader context of HIV/AIDS and of the region. Effective regional collation and dissemination of data will depend on open access to information.
3. Since the type of data required is determined by the policy context in which it will be used, clear regional policy frameworks need to be developed before mechanisms for data development can be established.
4. Data management systems are required that provide information for developing integrated policy on the wide range of factors that underlie the HIV/AIDS epidemic in the region, rather than concentrating on collecting health-specific data.
5. Current HIV/AIDS data does not provide information to enable comparison of the impact of HIV/AIDS relative to other social, economic, and health problems in order that decision makers can develop balanced policy approaches within or across sectors.
6. Consideration should be given to how the objectives of research and methods of data collection can reflect the needs of and involve the most poor and vulnerable people in the region, who are also those most affected by HIV/AIDS.
7. Regional initiatives around research and data collection would have major benefits in terms of economies of scale. Such initiatives could include: joint research programmes, joint databases, joint information dissemination, collaborative monitoring and evaluation, and integrating HIV/AIDS research and databases into broader regional initiatives.

6. Annex: SADC HIV/AIDS Prevalence and Correlates: Cultural

Country	%Urban Pop.HIV+	% Rural Pop. HIV+	Males circum-cised	Late Age Marriage	High Polygyny	Post-partum Abstinence	Women maintain own budget	Matrilineal	High HIV Migrant Cities
Angola	4	3	Yes	Mostly no	No	Long	No	Yes	Yes?
Botswana	23	10	No	Yes	No	Long	No	No	
Lesotho	4	3	?	Yes	No	Long	No	No	
Malawi	23	10	No	No	No	Long	No	Yes	
Mauritius	-	-	-	-	-	-	-	-	-
Mozambique	4	3	Yes	Mostly no	No	Long	No	Part yes	Yes (Beira?)
Namibia	4	3	Part yes	Yes	No	Long	No		
South Africa	4	3	75% no	Yes	No	Long	No	No	Jo'burg?
Swaziland	4	3	?	Yes	No	Long	No	No	
Tanzania	23	10	No	No	No	Short	No	No	
Zambia	23	10	No	No	No	Long	No	Mostly yes	
Zimbabwe	23	10	No	No	No	Long	No	Mostly no	
Regional Ave.					No	Long	No		

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8. Endnotes

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Section 5: Conclusion

The Conference highlighted common areas of concern related to HIV/AIDS in the SADC region. More importantly, it reached a consensus on the need for policy action that is regional in focus, that takes account of the multisectoral nature and impact of the epidemic, and that recognises the broader development context.

Priorities for consideration by SADC policy makers were identified in the areas of employment and labour, mining, tourism, education, medical drugs and data, areas which both affect, and are affected by, HIV/AIDS. These policy priorities and the regional actions to address them proposed by the Conference, are summarised below.

The implications of HIV/AIDS for the employment and labour sector include impact on the health of the productive age group, costs of medical care to employees and employers, the future viability of insurance schemes, and potential production losses. Innovative policies are needed to address these issues, in particular the role of social security, benefits and insurance in meeting the future costs of treatment and care, the role of the workplace in relation to government in HIV/AIDS prevention, education, and treatment, and how best to deal with shortages of skilled and experienced labour.

HIV/AIDS raises many of the same policy questions for the mining sector. But there are also issues that are particular to the mining industry that warrant specific consideration by policymakers at regional level. For example, the close links between mining and migration in the region, and the consequent separation of mineworkers from their families for long periods of time, increase the susceptibility of miners to HIV/AIDS. The Conference also noted the need for policies to address the important interaction between HIV and other STDs and between HIV and TB.

Mining is not the only reason for migration in the SADC region. Transitory migration is a feature of leisure and business. Low income travellers, such as truck drivers and petty traders, and those working in the tourism industry, are vulnerable to HIV/AIDS for a range of reasons. Tourism is of growing importance to the regional economy, with visitor numbers increasing and numbers employed in the sector also rising. Questions to be addressed by policymakers at national and regional level include what measures are needed to protect those working in the tourism sector from HIV/AIDS, to reduce the vulnerability of low income travellers, and to reassure visitors and potential visitors to the region.

In the education sector, HIV/AIDS has highlighted the importance of implementing policy changes that had already been identified as priorities. HIV/AIDS has also created additional policy issues, including how to maintain and improve the quality of education at the same time as teacher numbers decline and teachers are under increasing strain. Policymakers will need to find ways to meet the needs of growing numbers of orphans, erratic attenders and school dropouts, and those who have never enrolled in school. Another important area for policymakers, where regional information sharing and action might be beneficial, is education about HIV/AIDS, including determining the most appropriate role for schools in AIDS education and identifying the most effective approaches to school-based AIDS education.

Among the policy conclusions reached concerning medical drugs and HIV/AIDS were the need for standardised treatment protocols and guidelines, and for regional harmonisation and collaboration on procurement, distribution, production, and quality control. Standardised treatment protocols would also provide the basis for regional approaches to training of health workers and to public education and information.

Regional policy action on trade, capital investment and importing raw materials is also required to develop SADC capacity for the manufacture of pharmaceuticals.

Conference discussions concluded that existing research activities are disparate, narrow in focus and mostly fail to address issues of regional concern. Data available are incomplete, lack consistency between countries of the region, are poorly analysed, and used inadequately to inform policy making and programme implementation. Policy action is therefore required to jointly develop and implement a clear and relevant regional research agenda and to strengthen the collection, analysis, utilisation and dissemination of data at national and regional levels.

The main recommendations for action focused on regional support for national action, and joint regional action to strengthen the effectiveness of the response to HIV/AIDS.

1. Research

- Develop and implement joint studies and research relevant and beneficial for the region.
- Develop a regional financing system for joint research.
- Support and conduct studies on developing appropriate minimum treatment strategies and protocols for STDs, TB and other opportunistic infections and HIV.
- Perform analytical studies to identify priority aspects of HIV/AIDS and mobility and migration, and develop a framework for more comprehensive co-operation on migration, mobility and the rights of migrant workers, traders and others crossing borders in the region.
- Develop research into the particular contextual factors which increase the susceptibility and vulnerability of mineworkers to HIV/AIDS and the development of regional guidelines on interventions.
- Conduct research into current and projected drug requirements in the region.
- Develop, enhance and harmonise data collection on HIV/AIDS in the region.
- Mobilise regional multidisciplinary research teams.
- Introduce joint monitoring of the epidemic through harmonising regional management information systems.
- Ensure the collection of data that is useful for planning, policy formulation and implementation at all levels.

2. Education, training and capacity building

- Increase the capacity of existing monitoring and data collection systems, such as the SADC regional information technological centre, to enable policy makers to make informed decisions.
- Action to improve training in data collection and analysis and building the capacity of existing institutions.
- Organise enhanced skills and professional training and human resource development through support for a network of training facilities in the region.
- Develop regional protocols for the training of health workers in treating HIV/AIDS, STDs and TB.
- Regional cooperation in the education and training of tourism sector workers.

3. Information exchange and dissemination

- Develop shared production capacities for media and written materials for information and education on HIV/AIDS.
- Standardise and coordinate regional dissemination of health information for travellers.
- Exchange of information about technical and institutional capacities.

4. Education

- Involve young people in the development of educational material.
- Regional exchange of educational materials and establishment of a regional network of anti-AIDS clubs.
- Establish a regional model for curriculum development, in particular around life skills education.
- Strengthen action aimed at the education and empowerment of girls.

5. Employment, manufacturing and trade

- Facilitate manufacturing and harmonised quality control systems for drugs and condoms.
- Encouragement of joint measures to encourage greater regional production and trade in affordable drugs.
- Facilitate purchasing through opening of markets for products produced at national level.

- Adopt a regional code on employment and HIV/AIDS.
- Include data and research on employment in a regional databank.
- Initiate a comprehensive assessment of the impact of HIV/AIDS on employment.
- Action to reduce the vulnerability of low income travellers, especially women.
- Review working conditions in the tourism industry and develop and enact measures to improve these.
- Facilitate the process for governments in the SADC region to enact legislation to implement the code of practice in HIV/AIDS and employment.

6. Health services

- Regional action on issues that affect the health of travellers such as safe blood.
- The establishment of a regional essential drugs policy.
- The development of a regionally coordinated approach to drug procurement and harmonisation of distribution and dispensing policies .

The immediate outcome of the conference was a Statement on Regional Responses to HIV/AIDS in Southern Africa, and the SADC Plan of Action on HIV/AIDS. These are published together in the accompanying report *Proposal for Regional Action*.

The Conference and the *Proposal for Regional Action* were a first step in developing a framework for regional policy and action. To take this forward, the Statement and Plan of Action were submitted for approval by SADC country Ministers of Human Resource Development and their recommendations were put forward for consideration by the SADC Council of Ministers, with the ultimate aim of implementing the recommendations into the SADC region sectoral programmes.

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