

## **Socio-economic effects of HIV/AIDS in African countries**

Jan Isaksen  
Nils Gunnar Songstad  
Arild Spissøy

**R 2002: 10**



# **Socio-economic effects of HIV/AIDS in African countries**

Jan Isaksen  
Nils Gunnar Songstad  
Arild Spissøy

**R 2002: 10**

**A study commissioned by NORAD**

## *CMI Reports*

---

This series can be ordered from:

Chr Michelsen Institute

PO Box 6033 Postterminalen,

N-5892 Bergen, Norway

Tel: + 47 55 57 40 00

Fax: + 47 55 57 41 66

E-mail: [cmi@cmi.no](mailto:cmi@cmi.no)

<http://www.cmi.no>

Price: NOK 90+ postage

ISSN 0805-505X

ISBN 82-8062-020-6

This report is also available at:

[www.cmi.no/public/pub2002](http://www.cmi.no/public/pub2002)

## *Indexing terms*

---

HIV/AIDS

Social aspects

Economic aspects

Development aid

Malawi

Mozambique

Tanzania

Uganda

Zambia

# Table of contents

List of tables.....	v
List of figures.....	v
List of text boxes .....	v
Executive summary .....	vii
<b>1. Introduction.....</b>	<b>1</b>
<b>2. Overview of Social and Economic Impacts and Responses .....</b>	<b>2</b>
2.1 <i>HIV/AIDS, the medical facts</i> .....	2
2.1.1 What are AIDS and HIV? .....	2
2.1.2 The disease process.....	2
2.1.3 How HIV spreads.....	3
2.1.4 How is HIV infection diagnosed? .....	4
2.1.5 How is HIV infection treated? .....	4
2.1.6 How can HIV infection be prevented? .....	4
2.1.7 An HIV/AIDS vaccine? .....	6
2.2 <i>Demographic consequences</i> .....	6
2.2.1 Demographic overview .....	6
2.2.2 From high HIV prevalence to full-blown AIDS.....	8
2.3 <i>AIDS and the household</i> .....	10
2.3.1 Increased poverty from the HIV/AIDS epidemic .....	10
2.3.2 Impact at the household level .....	11
2.3.3 Household coping strategies .....	12
2.3.4 Long term consequences .....	12
2.4 <i>The gender aspect of HIV/AIDS</i> .....	13
2.4.1 HIV/AIDS and women in Africa.....	13
2.4.2 The burden of AIDS on women.....	14
2.5 <i>Children and orphans</i> .....	15
2.5.1 The plight of children .....	15
2.5.2 Vertical transmission of HIV .....	15
2.5.3 Orphans - the most vulnerable .....	16
2.5.4 The support system for AIDS orphans .....	17
2.6 <i>Community impact and responses</i> .....	18
2.6.1 Overall impact on the community .....	18
2.6.2 Community coping mechanisms.....	18
2.6.3 NGOs, CBOs.....	19
2.6.4 Greater involvement of affected people .....	20
2.6.5 Best practices .....	20
2.7 <i>Socio-cultural responses to HIV/AIDS</i> .....	23
<b>3. Overview of Economic Impacts and Responses.....</b>	<b>24</b>
3.1 <i>General macroeconomic effects</i> .....	24
3.2 <i>Changes in GDP and GDP per capita</i> .....	24
3.3 <i>Economic effects on enterprises</i> .....	25
3.3.1 General economic effects on enterprises.....	25
3.3.2 Impact on production factors .....	26
3.3.3 Impact on productivity .....	28
3.3.4 Impact on product demand.....	28
3.3.5 Other economic effects of HIV/AIDS on enterprises.....	29
3.3.6 Enterprise responses .....	29
3.4 <i>Sectoral impacts</i> .....	31
3.4.1 Industries and growth potential.....	31
3.4.2 Agriculture, subsistence and commercial.....	32
3.4.3 Manufacturing.....	34
3.4.4 Transport, mining and construction.....	35
3.4.5 Tourism .....	36
3.4.6 Financial sector .....	36
3.4.7 Media .....	37
3.4.8 Informal sector.....	37

3.4.9	The professions .....	38
3.4.10	The public sector in general .....	39
3.4.11	The health sector.....	39
3.4.12	Education .....	42
3.4.13	Military, security.....	45
3.4.14	Local government .....	46
3.4.15	Politics and politicians .....	47
3.4.16	Various social/development sectors .....	47
<b>4.</b>	<b>AIDS Problems and Policies in Norwegian Co-operation Countries.....</b>	<b>48</b>
4.1	<i>Aids policies and planning</i> .....	48
4.2	<i>Malawi</i> .....	51
4.2.1	Overview of population and HIV/AIDS .....	51
4.2.2	Socio-economic effects .....	51
4.2.3	Aids discourse.....	52
4.2.4	HIV/AIDS, institutional focus and key policy statement.....	52
4.2.5	Overview of planning and budgeting processes and integration of AIDS.....	53
4.2.6	Role of donors .....	54
4.3	<i>Mozambique</i> .....	55
4.3.1	Overview of population and HIV/AIDS .....	55
4.3.2	Socio-economic effects .....	55
4.3.3	HIV/AIDS, institutional focus and key policy statement.....	56
4.3.4	Overview of planning and budgeting processes and integration of AIDS.....	56
4.3.5	Role of donors .....	57
4.4	<i>Tanzania</i> .....	57
4.4.1	Overview of population and HIV/AIDS .....	57
4.4.2	HIV/AIDS, institutional focus and key policy statement.....	58
4.4.3	Overview of planning and budgeting processes and integration of AIDS.....	59
4.4.4	Role of donors .....	60
4.5	<i>Uganda</i> .....	60
4.5.1	Overview of population and HIV/AIDS .....	60
4.5.2	Socio-economic effects .....	61
4.5.3	Aids discourse.....	61
4.5.4	HIV/AIDS, institutional focus and key policy statement.....	62
4.5.5	Overview of planning and budgeting processes and integration of AIDS.....	63
4.5.6	Role of donors .....	65
4.6	<i>Zambia</i> .....	66
4.6.1	Review of the HIV/AIDS situation.....	66
4.6.2	Aids discourse.....	67
4.6.3	HIV/AIDS, institutional focus and key policy statement.....	67
1.1.1	Role of donors .....	68
4.7	<i>Integration of HIV/AIDS issues in national plans, some main points</i> .....	69
4.7.1	HIV/AIDS strategies.....	69
4.7.2	Institutional frameworks .....	69
4.7.3	Integration of HIV/AIDS into national planning.....	70
4.7.4	Plans, budgets, accounts and outcomes.....	71
4.7.5	Aids discourse.....	72
4.7.6	Donor activities.....	73
<b>5.</b>	<b>Conclusions and recommendations .....</b>	<b>74</b>
5.1	<i>Mapping demographic and social impacts</i> .....	74
5.2	<i>Socio-economic destruction, coping strategies and long-term planning</i> .....	74
5.3	<i>Economic impacts on agriculture</i> .....	77
5.4	<i>Economic impacts on other sectors</i> .....	77
5.5	<i>Comprehensive anti-AIDS planning and donor support</i> .....	78
5.6	<i>Improving resource flow monitoring</i> .....	80
5.7	<i>Diversity in anti-Aids strategy</i> .....	80
5.8	<i>Integration into country planning frameworks</i> .....	81
5.9	<i>Norwegian assistance strategy</i> .....	81
5.10	<i>Making donor assistance effective</i> .....	82
5.11	<i>Policy-oriented sectoral impact research</i> .....	82
<b>6.</b>	<b>References.....</b>	<b>84</b>

## List of tables

Mapping demographic and social impacts [Section 3.2 and country sections on population and socio-economic effects under section 5]:.....	vii
Table 1. Adult HIV prevalence rates.....	6
Table 2: AIDS mortality 2000 and projected 2005.....	9
Table 3. HIV prevalence among young adults (highest estimates).....	13
Table 4. Estimates of annual deaths in children from AIDS.....	16
Table 5. Estimates of AIDS orphans.....	16
Table 6 Decline in labour force due to HIV/AIDS, 2005 and 2020.....	26
Table 7 Reduction in output on smallholder farms in Zimbabwe.....	33
Table 8 Health sector checklist to tackle HIV/AIDS related problems.....	41
Table 9 The costs of scaling up the AIDS response and the impact of HIV/ AIDS on education.....	44

## List of figures

Figure 1. Life expectancy in Malawi, Mozambique, Tanzania, Zambia, Uganda.....	7
Figure 2: The "population chimney".....	8
Figure 3: The growth impact of HIV.....	25
Figure 4 Industries in Southern Africa that reflect high growth opportunities (% of respondents).....	32
Figure 5: How effectively are PRSPs tackling AIDS.....	71

## List of text boxes

Box 1. Characteristics of poverty.....	10
Box 2 Strategic action to help affected children.....	18
Box 3. Strengthening the household through agriculture.....	22
Box 4 Possible intervention strategies.....	22
Box 5 A Best Practice survey.....	30
Box 6 A university response to HIV/ AIDS.....	45

## Executive summary

This desk study of HIV/AIDS was prepared by the Chr. Michelsen Institute under a contract with NORAD. The objectives of the study were to:

- review and summarise the main and most recent literature analysing the socio-economic consequences of HIV/AIDS in sub-Saharan Africa and identify the main challenges for public policy
- compile and analyse relevant studies and policy documents from Malawi, Mozambique, Tanzania, Uganda, and Zambia, called the “focus countries” below
- identify particular issues of importance for Norway's longer term country assistance to the five countries, and more generally to all countries in sub-Saharan Africa, in view of the AIDS pandemic.

It is hoped that the study will contribute to the analysis of Norwegian aid policy in the area of HIV/AIDS and be of assistance in providing background material for development assistance officials. The study also gives a few pointers for more rigorous research in the area.

**Mapping demographic and social impacts** [*Section 3.2 and country sections on population and socio-economic effects under section 5*]: The study examines very briefly the demographic effects of HIV/AIDS. Although there are considerable differences in adult HIV prevalence rates between our five focus countries, all countries have experienced falling life expectancies because of HIV/AIDS. Uganda is the only country where the last five years have seen a slight *increase* in life expectancy. The countries' population *growth rates* will decline but none of the focus countries are likely to experience a *decline* in their population, which could be the case for Botswana, Zimbabwe and South Africa.

The study stresses the long-term consequences of AIDS and finds little evidence of attempts to explore the future socio-economic effects of the profound changes in the population structures of most African countries as a result of AIDS. It is *recommended that Norway, which has taken the AIDS challenge very seriously and in some countries have become the lead donor in this area, offers its support to countries which attempt to explore the future demographic and societal effects of AIDS.*

**Socio-economic destruction, coping strategies and long-term planning** [*Sections 3.3 to 3.7 and 4.1 to 4.3*]: All our focus countries are among the poorest in the world. Since the population is already vulnerable, the epidemic will have a particularly strong affect on these countries and the poorer households are likely to be relatively worse affected by HIV/AIDS.

The study stresses that women and children are suffering most from AIDS. In Africa it is clear that women have the highest infection rates. Traditional systems for taking care of orphaned children are breaking down under the burden of AIDS and new institutional systems have not been built up.



The epidemic also has a strong impact at the community level. Agricultural production and food supply drop, families and communities break apart and young people's future becomes insecure.

Best practices in reducing the impact on individuals, households and communities must be focused on the *household*, which is the most important institution for providing care for children, sick people and the elderly in rural Africa.

Efforts to establish support systems for people and communities must pay adequate attention to social and cultural responses to the HIV/AIDS issue. Pre-existing cultural patterns are highly relevant to the response to AIDS control messages.

The study emphasises that analysis of the economic effects of AIDS at both macro and micro levels is important, not least for the international community which will have to support African countries in getting through the crisis. There is, however, little data and little work has been done in this area so far.

Recent studies of African countries looking at key determinants of long-term growth show a considerable reduction in the growth rate of GDP per capita as a result of the AIDS epidemic. Main causes for the deterioration in growth are likely to be a slower growth in total factor productivity and a shift in government spending towards health spending.

The study also considers the impact on enterprises. The most notable negative effect has been the decline in labour supply and loss in productivity because of absenteeism, while the effect on capital appears less certain. Many of these effects are greater for small businesses that are dependent on a few key persons and therefore will be particularly vulnerable. Foreign direct investment is likely to decline because of the economic uncertainties created by the epidemic. Declining economic growth will mean that the demand for domestic goods will be hit.

It appears generally that business is not taking the threat of AIDS very seriously in terms of contingency planning or attempts to create awareness about HIV and AIDS. **With the likely scenario of a worsening epidemic, it is therefore recommended that NORAD, with those co-operating countries that may welcome such support, look into the possibility of making available more resources for long term and contingency planning and/or awareness-creation within the enterprise sector.**

**Economic impacts on agriculture** [Sections 3.3.2 to 3.3.3 and section 4.4.2]: The study also examined the available evidence for the more important private and public sectors. The biggest challenge in agriculture appears to be the overall decline in food production where even if one takes AIDS out of the equation Africa will have difficulty in maintaining basic food production over the next two decades. It is *recommended that Norway should consider supporting FAO's major exercise in rethinking the epidemic.* This will have implications for agricultural policy and for appropriate modification of FAO's work.

**Economic impacts on other sectors** [Section 4.4]: The manufacturing sector transport, mining, construction, tourism and the financial sector will be hit in various ways.

In all the focus countries, health services were far from perfect before the onset of HIV/AIDS. Presently, they are under very severe pressure. The reason for this is mostly the overwhelming number of patients but also attrition of health service staff due to infection.

The study also points out that high HIV/AIDS prevalence within the armies of Africa is a matter of concern as it increases the probability of instability within the military. HIV/AIDS is quite likely to nourish tendencies for instability and insecurity both nationally and regionally if allowed to proceed unchecked. It is *recommended that Norway should offer the main co-operation countries in Africa support for studies of particularly vulnerable or susceptible sectors within both the enterprise and public sectors. Such studies would aim at producing policies and measures against the particular sectoral problems of prevention and cure as well as abatement of social and economic effects.*

**Comprehensive anti-AIDS planning and donor support** [Country sections on anti-AIDS policy, planning, budgeting and donors under section 5 and sections 5.7.3 to 5.7.4]: It has been argued that HIV/AIDS is a disease like any other disease and should therefore be fought in line with all other diseases. This study points to a number of reasons why the fight against HIV/AIDS in Africa must come at the top of the national and indeed international agenda.

First of all, AIDS is now the biggest killer in Africa. Secondly, whereas no effective cure or vaccine has been found, prevention methods are both known and relatively simple. Thirdly, and very importantly, the disease hits the most productive segment of the population, thus ruining human resources that are the most important basis for what Africa needs most of all, economic development. Fourthly, there is considerable evidence that the disease hits poorer populations harder than better off populations and thus multiplies Africa's poverty problem.

In most African countries preventive and curative efforts focused on HIV/AIDS have come about relatively recently and have perhaps therefore still not been given a share of available resources which is commensurate with their importance. The pressure for continuing the improvement of preventive and curative activities must therefore be strengthened.

The greatest future challenge for African developing countries and their donors alike is, however, to prepare for the change of the epidemic from one of HIV/AIDS to *full-blown AIDS*. The present decade will certainly be the worst decade ever with regard to AIDS morbidity and mortality. This may be said quite confidently because the majority of those who will die are infected already and the chance that cures will have a dramatic effect is small indeed. The only case in Africa where it is likely that AIDS mortality will start to decline soon is Uganda.

This means that in addition to the preventive and curative effort, much more emphasis will have to be put on social and economic effects that will appear even more overwhelming than they are today. Two main consequences of this are that the total amount of resources needed for the fight against HIV/AIDS will increase and that they will have to be mainstreamed in public sector planning and budgeting.

Given present donor policy trends away from narrow project support towards budget support, the study highlights the extreme importance for public sector planning and budgeting systems in recipient countries of channelling resources to fight HIV/AIDS and its consequences effectively and efficiently. Based on ideas from UNAIDS and the World Bank, the study formulates and tries to apply criteria for appropriate HIV/AIDS planning and budgeting based on what has been done in Norway's main co-operation countries in Africa. *It recommends that such criteria be used as a guideline for NORAD to pinpoint weaknesses in systems that channel public resources to the fight against HIV/AIDS, and to offer support for improvement to its development co-operation partners.*

**Improving resource flow monitoring** [*Country sections on budgeting under section 5 and section 5.7.4*]: Because of the dearth of analyses and data in this area it is also recommended that NORAD uses tracer studies as well as impact studies to analyse the effects of channelling resources for HIV/AIDS activities through public sector budgets.

**Diversity in anti-Aids strategy** [*Country sections on institutions and planning under section 5 and sections 5.7.2 to 5.7.3*]: Considering HIV/AIDS strategies in the focus countries, the study finds that there are quite marked differences in how the countries target groups, set measurable targets, handle popular mobilisation and apply mainstreaming, for example in relation to PRSP. The study points out that *the differences in approach may be a basis for the cross-fertilisation of ideas, which should be supported by NORAD.*

**Integration into country planning frameworks** [*Country sections on planning under section 5 and sections 5.7.3 to 5.7.4*]: Looking at institutional setups and the integration of the national framework for HIV/AIDS activities into national plans or PRSPs, it is clear that countries have handled the *institutional frameworks* differently. It is, however, clear that although all countries have devised strategies, the lack of capacity in government planning and budgeting as well as in the institutional base for managing the fight against HIV/AIDS, has made for a slow start of activities and, most likely, an inefficient use of funds. As the new trends in aid management take effect and call for more emphasis on budgetary support combined with proper financial governance and management, it will make sense for donors to consider support to efficient management of public sector AIDS activities, right from the policy level down to the grassroots. In the real world, the fight against AIDS competes for resources with many other public sector goals. As a relatively new segment of public expenditure HIV/AIDS will tend to lose out in the battle for resources if it is not given a strong emphasis both at the policy level and the implementation level. *Because of*

*the particular circumstances around HIV/AIDS as a new phenomenon in the budget context and because of the particular need to move quickly from the planning stage into practice, it is recommended that NORAD places particular emphasis on offering its co-operating partners capacity building for the institutions and individuals that are involved in the fight against HIV/AIDS.*

**Norwegian assistance strategy** [*Country sections on donors under section 5 and sections 5.7.5 to 5.7.6*]: Initially, national programmes had a major emphasis on preventive and medical issues. In addition to supporting UNAIDS activities, Norwegian support also came to have considerable emphasis on preventive and curative areas. In most countries the profile of support is now starting to move towards broader areas, particularly co-operation with the national AIDS commissions. *In view of the greater concern for the social and economic effects of HIV/AIDS expected in the future, this movement towards general and institutional support is necessary and should be accelerated.*

**Making donor assistance effective** [*Country sections on AIDS discourse donors under section 5 and sections 5.7.5 to 5.7.6*]: More general support for public sector anti-AIDS activities strengthens the case for greater concern with financial management and efficient use of resources in the public sector in general. *It is important to ensure clear and thorough mechanisms for resource mobilisation and for channelling funds to the communities so that the limited resources reach where they are needed.*

**Policy-oriented sectoral impact research** [*Comments at various points in the report on information gaps and absence of issue-focused analysis*]: The transition from an HIV/AIDS crisis to a full-blown AIDS crisis will be dramatic. Looking at the next couple of decades there is a large number of uncertainties about the future shape of the pandemic. These uncertainties have implications, however, for decisions taken and policies set at the present stage. *It is recommended that NORAD, in co-operation with the key African recipients of Norwegian aid and other development partners, considers the possibility of promoting and supporting a number of policy-oriented sector studies of the future social, political and economic impact of HIV/AIDS. Important sectors for such studies may be education, health, agriculture, mining and perhaps security, peace and stability. The studies should include macroeconomic and budgetary implications as a major part of the policy problems are connected to the ability to fund them. The studies would aim at clarifying the implications of future developments for policies that are being set today. Such studies will complement Norwegian support to the national AIDS commissions, which will also need to deal with the longer-term effects of the crisis.*

# 1. Introduction

This study of HIV/AIDS was prepared by the Chr. Michelsen Institute under a contract with NORAD. The objectives of the study were to:

- review and summarise the main and most recent literature analysing socio-economic consequences of HIV/AIDS in sub-Saharan Africa and identify main challenges for public policy
- compile and analyse relevant studies and policy documents from Malawi, Mozambique, Tanzania, Uganda, and Zambia.
- identify particular issues of importance for Norway's longer term country assistance to the five countries, and more generally for all countries in sub-Saharan Africa, in view of the AIDS pandemic.

The study focuses on social and economic effects. Therefore, medical and demographic issues are only presented by way of introduction in short subchapters. Demographic aspects are further examined in a paper by Helge Brunborg of the Norwegian Bureau of Statistics, which we have drawn upon in the present study.

The study was prepared as a desk study and suffers from some of the typical limitations of such studies. The literature on HIV/AIDS is vast, quickly growing and to some extent bewildering. During December 2001 - March 2002 the team collected over 600 relevant documents and web pages, which provided the basis for the study. A partly annotated database containing this background material can be made available from CMI on request.

During the data collection exercise, the CMI library was intensively used and the Internet thoroughly searched. The CMI's extensive contacts in various countries in Africa were also canvassed. Not least, the NORAD headquarters and the Norwegian embassies in the focus countries contributed considerable material.

It is hoped that the study will contribute to the analysis of Norwegian aid policy in the area of HIV/AIDS and be of assistance in providing background material for development assistance officials. The study also gives a few pointers for more rigorous research in the area.

## 2. Overview of Social and Economic Impacts and Responses

### 2.1 HIV/AIDS, the medical facts

#### 2.1.1 *What are AIDS and HIV?*

AIDS (acquired immune deficiency syndrome) was first described only in 1981 and has become a major world-wide epidemic. AIDS is caused by infection with HIV (human immunodeficiency virus), which kills or harms cells of the body's immune system (T-cells), gradually destroying the body's ability to fight infections and certain cancers. There are two types of HIV: HIV-1, which is distributed world-wide; and HIV-2, which is largely confined to West Africa. Individuals diagnosed with AIDS are likely to get life-threatening diseases called opportunistic infections, which are caused by bacteria, viruses, and other types of microscopic organisms that are usually harmless in healthy people. AIDS is called "acquired" to distinguish it from inherited (genetic) forms of immunodeficiency. It is called a "syndrome" because it is a set of symptoms, which occur together, rather than a clear-cut disease.

#### 2.1.2 *The disease process*

As HIV infection progresses, most people experience a gradual decrease in the number of cells in their blood called CD4+ T cells. These cells normally protect the body from infections and other types of disease.

Some people become so ill from the symptoms of AIDS that they are unable to hold a job or do household chores, while others may experience phases of intense life-threatening illness followed by periods of normal functioning. The term AIDS applies to the most advanced stages of HIV infection, and includes all HIV-infected people who have fewer than 200 CD4+ T cells, whereas healthy adults usually have counts of 1000 or more (The National Institute of Allergy and Infectious Diseases 2002).

Persistent or severe symptoms may not appear for a long time after HIV infection. However, HIV continues actively to infect and kill cells of the immune system, even when the person has no symptoms.

AIDS-defining opportunistic infections can be very severe, causing significant morbidity and death in people with HIV. However, use of highly active antiretroviral therapy and effective prophylactics and treatments for the infections can significantly mitigate the incidence of these complications.

Symptoms of opportunistic infections common in people with AIDS include

- coughing and shortness of breath
- seizures and lack of co-ordination

- difficult or painful swallowing
- mental symptoms such as confusion and forgetfulness
- severe and persistent diarrhoea
- fever
- vision loss
- nausea, abdominal cramps, and vomiting
- weight loss and extreme fatigue
- severe headaches
- coma

For AIDS patients in Africa, tuberculosis (TB) is the most fatal of the opportunistic diseases.

### *2.1.3 How HIV spreads*

HIV is relatively difficult to transmit, as it does not live for long outside the body. HIV spreads most often by sexual contact with an infected partner. The virus enters the body through the lining of the vagina, vulva, penis, rectum, or mouth during sex.

HIV also spreads through contact with infected blood. Before 1985, HIV was transmitted through transfusions of contaminated blood or blood components such as those given to people with haemophilia. Today, pre-donor screening and heat-treating techniques for blood products have practically eliminated the risk of getting HIV from transfusions.

HIV often spreads among users of intravenous (injected) drugs by sharing needles or syringes contaminated with blood from an infected individual. However, transmission by accidental needle insertions or other medical contact between patients and health care workers is rare (The National Institute of Allergy and Infectious Diseases 2002).

Women can transmit HIV to their babies during pregnancy or while giving birth. HIV can also spread to babies through the breast milk of infected mothers. Among 30 % of infected mothers transmit the disease to their babies.

Although HIV can be found in the saliva of infected individuals, no evidence exists that the virus can spread by contact with saliva, such as by kissing. In fact, saliva contains natural compounds that reduce the ability of HIV to cause infection. There is also no evidence that HIV is spread through sweat, tears or urine.

HIV is not spread through casual contact such as the sharing of food utensils, towels and bedding, swimming pools, telephones, or toilet seats. Nor is HIV spread by biting insects such as mosquitoes or bedbugs.

Having a sexually transmitted disease (STD) such as syphilis, genital herpes, chlamydial infection, gonorrhoea, or bacterial vaginosis appears to make people more susceptible to getting HIV infection during sex with infected partners.

#### *2.1.4 How is HIV infection diagnosed?*

Because early HIV infection often causes no symptoms, a doctor or other health care provider usually has to diagnose it by testing a person's blood for the presence of antibodies (disease-fighting proteins) to HIV. HIV antibodies generally do not reach detectable levels in the blood for one to three months following infection. It may take the antibodies as long as six months to be produced in quantities large enough to show up in standard blood tests. Babies born to mothers infected with HIV may or may not be infected with the virus, but all carry their mothers' antibodies to HIV for several months. If these babies lack symptoms, a doctor cannot make a definitive diagnosis of HIV infection using standard antibody tests until after 15 months of age (NIAID, 2002).

#### *2.1.5 How is HIV infection treated?*

Over the past 10 years, researchers have developed drugs to fight both HIV infection and its associated infections and cancers. These drugs may slow the spread of HIV in the body and delay the onset of opportunistic infections. Because HIV can become resistant to any of these drugs, health care providers must use a combination treatment to suppress the virus effectively. Currently available antiretroviral drugs do *not* cure people of HIV infection or AIDS, however, and they all have side effects that can be severe.

While highly active antiretroviral therapy (HAART) is not a cure for AIDS, it has greatly improved the health of many people with AIDS and it can reduce the amount of virus circulating in the blood to nearly undetectable levels. Research has shown that HAART cannot entirely eradicate HIV from the body.

#### *2.1.6 How can HIV infection be prevented?*

Because no preventive vaccine for HIV is available, the only way for individuals to prevent infection by the virus is to avoid behaviours that put a person at risk of infection, such as having unprotected sex and sharing needles. Behavioural interventions are likely to remain the backbone of HIV prevention for the foreseeable future (Adler, 2001).

However, governments and organisations can take action to reduce the numbers of the newly infected other than by trying to change people's risky behaviour.

First, diagnosis of infected individuals has an important role in secondary prevention, because it allows infected individuals to benefit from possible treatment to reduce the chance of progression to severe immunodeficiency. Identifying those who are HIV positive in order to work with them to prevent onward virus transmission is also fundamental to primary HIV prevention (Adler, 2001). Promotion of voluntary HIV testing and promotion of counselling are therefore an important strategy to prevent the spread of HIV.

Second, as stated in 3.1.3, there is substantial evidence that STI's may increase the susceptibility of uninfected individuals to HIV and also increase the infectiousness of HIV-positive individuals. This is because of sore or injured



mucous membrane and because an infectious process is already occurring. Control of STIs therefore has an important role in the primary prevention of HIV. Screening of STIs and early treatment of syphilis, genital herpes, chlamydial infection, etc would therefore be effective in reducing the rate of newly infected individuals, and it offers an opportunity to focus behavioural interventions.

Third, testing blood samples for HIV antibody and excluding those at increased risk from HIV from donating blood will minimise the risk of HIV transmission through blood transfusion.

Fourth, antiretroviral drugs have proven to be effective in preventing transmission of HIV from an infected mother to her baby. Until recently zidovudine drugs (AZT and ZDV)<sup>1</sup> known to hinder mother to child transmission (MTCT) were preferred. The standard AZT regimen is, however, too expensive and impractical for widespread use in developing countries. A joint Uganda-U.S. study found in 1999 a highly effective and safe drug regimen for MTCT prevention that is more affordable and practical than any other<sup>2</sup>. Patients were treated either with AZT or with nevirapine. The results demonstrated that a single oral dose of the antiretroviral drug nevirapine<sup>3</sup> given to HIV-infected women in labour and another to their babies within three days of birth reduced the transmission rate by half compared with those given a similar short course of AZT. At 14 to 16 weeks of age, 13.1 percent of infants who received nevirapine were infected with HIV, compared with 25.1 percent of those in the AZT group (US Department for Health and Human Services, 1999). Without any treatment 30-35 % of the infants of HIV-infected mothers become infected.

Nevirapine, developed by Boehringer Ingelheim Pharmaceuticals (BIP), is a non-nucleoside reverse transcriptase inhibitor, and is in a different class of antiviral drugs than AZT. Nevirapine is rapidly absorbed and transferred across the placenta to the infant, and it breaks down slowly. It can be easily stored at room temperature. The cost of the drug used in the nevirapine regimen is approximately 200 times cheaper than the long-course AZT, and almost 70 times cheaper than a short course of AZT given to the mother during the last month of pregnancy.

On 7 July 2000, BIP announced that it would offer the antiretroviral drug nevirapine (Viramune<sup>®</sup>) free of charge for use in prevention of mother to child transmission for a period of five years in developing countries. BI announced that it would make this donation in partnership with the United Nations family (UNAIDS, 2001c). UNAIDS and WHO have recommended the use of nevirapine in MTCT prevention since October 2000, and confirmed their recommendation in a press release in March 2002 (UNAIDS, 2002).

---

<sup>1</sup> ZDV and AZT are nucleoside reverse transcriptase inhibitors

<sup>2</sup> The study, known as HIVNET 012, compared the safety and efficacy of two different short-course regimens of antiviral drugs administered late in pregnancy, AZT and nevirapine.

<sup>3</sup> Nevirapine is a non-nucleoside reverse transcriptase inhibitor

It is estimated that 600 000 infants get infected each year as a result of MTCT. This number could be halved with a wide distribution of nevirapine to mothers and babies in developing countries. The mother can take a pill when the labour begins and the child should be brought to a hospital and be given a dose within 72 hours of birth.

### 2.1.7 *An HIV/AIDS vaccine?*

Developing countries urgently need an AIDS vaccine to improve the effectiveness of their AIDS prevention programmes. However, global spending on AIDS vaccine R&D is pitifully small — only \$300-600 million/year, and focused on the strains of the virus and the eventual market in North America and Western Europe. A number of institutions, including the World Bank and the European Commission, have been searching for new mechanisms and market incentives that would raise levels of private R&D and speed development of an AIDS vaccine that would be effective and affordable in developing countries.

There have been a number of different vaccine candidates. None of them has so far turned out to be effective. Currently a therapeutic vaccine is being tested clinically in Norway. It is being used on already infected people. The goal of the vaccine is to strengthen the body's own ability to fight the HIV virus and to hinder development of AIDS. The manufacturer hopes to get the vaccine ready for commercial release within three to five years (Juuko, 2002).

## 2.2 Demographic consequences

### 2.2.1 *Demographic overview*

The HIV prevalence rates in the five countries Malawi, Mozambique, Malawi, Tanzania, Zambia and Uganda are given in the table below.

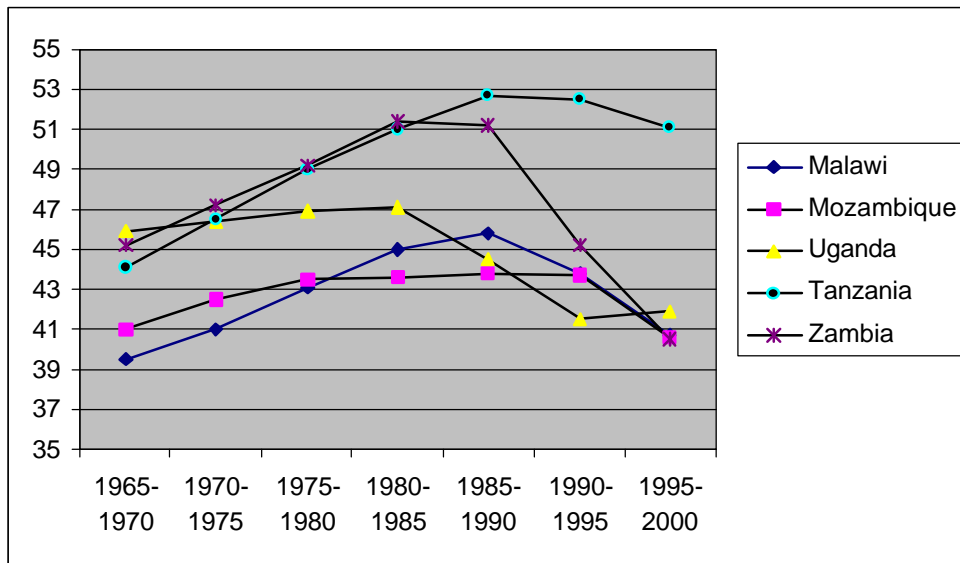
**Table 1. Adult HIV prevalence rates**

	Adult HIV prevalence
Malawi	16.0
Mozambique	13.2
Tanzania	8.1
Uganda	8.3
Zambia	20.0

Source: UNAIDS (2000g)

In all these countries there are regional variations as well as differences between rural and urban areas. Some reports indicate that urban prevalence may be two to three times higher than rural prevalence (World Bank 1998a:25, Loewenson and Whiteside 1997: ). In Tanzania, the Kagera Region bordering Uganda has an HIV prevalence rate of approximately 20 % (Tibaijuka 1997:964), while the national prevalence rate is 8.1 %. The figure below shows the changes in life expectancy in Malawi, Mozambique, Tanzania, Zambia and Uganda.

**Figure 1. Life expectancy in Malawi, Mozambique, Tanzania, Zambia, Uganda**



Source: (United Nations Population Division 2002)

The demographic consequences of the epidemic are profound. The World Development Report 2000 points to a scenario where the gains in increased life expectancy are likely to be wiped out due to HIV/AIDS (World Bank 2000:4, see also United Nations 1994). Life expectancy in hard-hit countries has been pushed back to levels found more than a decade ago (World Bank 1999a:22, see also Brunborg 2002).

This figure clearly shows a decrease in life expectancy. From the figure one can read that the downward trend started first in Uganda. Malawi, Mozambique and Zambia have currently a life expectancy at approximately the same level as Uganda. Tanzania seems to have been able to maintain a higher life expectancy than the other countries.

The effect of AIDS is even more profound in Botswana where life expectancy dropped from above 60 years in the mid-eighties to 44 years in the period 1995-2000, and is expected to fall to 36 years in the period 2000-2005 (United Nations Population Division 2002).

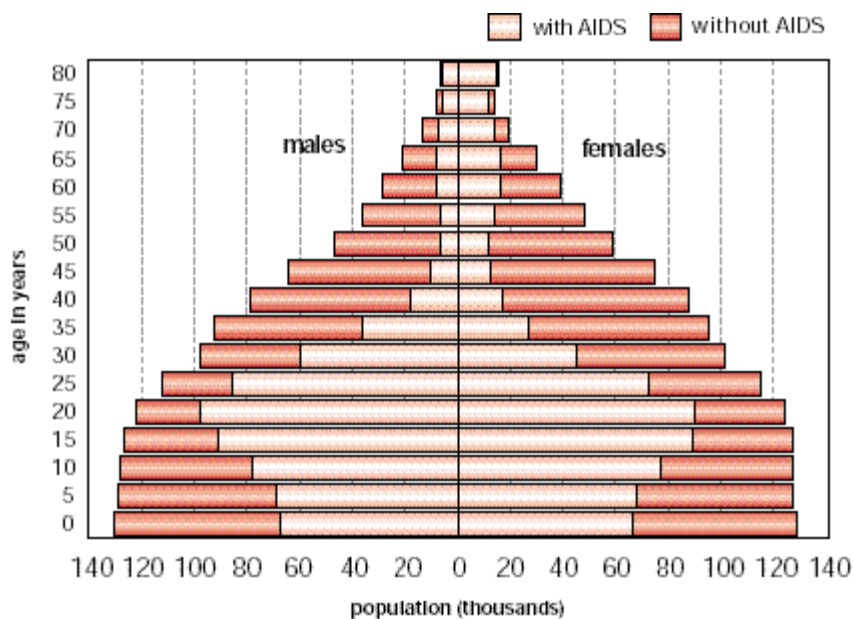
However, projections for the sub-Saharan countries show that AIDS will not cause a generally negative population growth (World Bank 1998a:17, and Loewenson and Whiteside 1997:13). In all countries apart from Botswana, Zimbabwe and South Africa the population is expected to grow (Brunborg

2002), but at rates lower than a scenario without AIDS. A recent IMF Working Paper points out that the population growth rate has dropped by between 0.6 and 1.5 per cent in southern Africa (Haacker 2002:3).

The population structure in developing countries is often described as a pyramid with the size of the age cohorts decreasing with age. This is however expected to change, as the HIV/AIDS epidemic changes the relative composition of the age cohorts in the population. The birth rate in the population decreases due to lower fertility among HIV-positive women (Berer and Ray 1993:17-18). Furthermore, a large number of women die during their prime fertile period. The combined effect of high mortality and lower fertility cause changes in the age composition of the population.

Children infected with HIV, mainly by vertical transmission of HIV from mother to child (MTCT), tend to die at an early age. In the age group 5-15 years there are few cases of HIV infection. There is, however, a dramatic increase in the rate of HIV infection when young people become sexually active. More than 50 % of the daily 16 000 new HIV infections, of these probably the majority located in sub-Saharan Africa, occur among those aged 15-24 years (Lyons 1998). The population of young adults is shrinking dramatically due to AIDS deaths. The large numbers of deaths of children and young adults transform the pyramid into a "population chimney", as is the expected in Botswana by 2020.

**Figure 2: The "population chimney"**



Source UNAIDS (2000g:22), see also Brunborg (2002).

### 2.2.2 From high HIV prevalence to full-blown AIDS

In sub-Saharan Africa, the adult HIV prevalence rate (15 to 49 years) is 8.4 per cent. The actual number of adults and children living with HIV/AIDS is 28.1 million, approximately 70 % of the cases world-wide. In 2001, 2.3 million

people died from AIDS, and 3.4 million people were infected by HIV in sub-Saharan Africa (UNAIDS 2001a). These numbers are expected to rise over the coming decades as the epidemic spreads into parts of the Africa with currently low HIV prevalence rates. Low national prevalence rates can be misleading. The HIV epidemic may be concentrated in certain localities or specific population groups, but may spill over into to the wider population (UNAIDS 2001a:5). The seriousness becomes evident when large numbers of people fall sick and die from AIDS. The epidemic causes a significant increase in morbidity and mortality and wipes out a rather large percentage of the population in their prime working age.

Table 2 shows the number of people expected to die from AIDS related diseases in the five focus countries.

**Table 2: AIDS mortality 2000 and projected 2005**

Year	AIDS deaths		
	2000	2005	Pct Increase
Malawi	80,000	105,000	31.2
Mozambique	88,000	145,000	64.8
Tanzania	130,000	150,000	15.4
Uganda	90,000	60,000	-33.3
Zambia	110,000	125,000	13.6

Source: UNAIDS

Two features appear clear from the table: *First*, in all countries but Uganda the AIDS death frequency will increase from 2005. Additional information from UNAIDS (email communication) indicates that for all or most of the countries the number of deaths will plateau around 2005 but there is little evidence that the number of deaths will decrease as in Uganda since there is no evidence of national level decreases in *prevalence* yet. This means that the first decade of the new millennium will be the worst ever decade in terms of AIDS deaths and that the second half of the decade possibly will be worse than the first half. Only a widespread use of antiretrovirals could prevent this. Even if a vaccine is produced and used widely soon, it will have very little effect on the numbers above because the major part of those who will die in this decade are already infected.

Secondly, there are considerable differences between the various countries in terms of increased AIDS deaths. The decline in Uganda is occurring because its adult prevalence peaked in 1992 – 1993 and has dropped ever since. Mortality therefore reached a peak in the late nineties and is now dropping. In Mozambique, the apparent growth in prevalence is resulting in considerable increases in deaths from 2000 to 2005. Zambia and Malawi both climbed to a high level of prevalence in the early nineties, and remained at roughly the same level up to the late nineties. Tanzania had a lower prevalence level in the early nineties, but this increased somewhat towards the end of the decade.

The Tanzanian *National Policy on HIV/AIDS* points out that over 70 per cent of those infected are aged between 20-49 years (The United Republic of Tanzania

2001a:ix). HIV-infected people die from opportunistic diseases, which gain momentum when AIDS weakens people. In particular, tuberculosis (TB) is a significant killer (Danziger 1994:908-910). Carriers of the tubercle bacillus who become infected with HIV face a 30 to 50-fold increase in their risk of developing active tuberculosis (UNAIDS 2000g:86).

Looking at HIV prevalence rates illustrates exactly how serious the epidemic is. The prevalence rate usually measures the percentage of the adult population aged 15-49 years (UNAIDS 2000g:120) infected with HIV at a given moment in time. The substantial number of people, both children and adults, who have died from AIDS is not possible to read from these figures.

Furthermore, large numbers of people not currently infected are likely to contract the HIV virus. In countries with an adult prevalence rate of 15 %, at least 35 % of young men today aged 15 will die from AIDS (UNAIDS 2000g:25-26). This staggering figure shows the seriousness of the epidemic's impact on all aspects of society. The large number of AIDS orphans adds another serious dimension of the epidemic. The overall impact is likely to increase in the near future.

## 2.3 AIDS and the household

### 2.3.1 *Increased poverty from the HIV/AIDS epidemic*

Malawi, Mozambique, Tanzania, Zambia and Uganda are among the poorest in the world. According to the World Development Report 2000/2001 these five countries have a BNP/capita ranging from USD 190 to USD 320 (World Bank 2000:274-75). The five countries are all among the countries with the lowest scores on the Human Development Index (HDI) (UNDP 2000:157-160). The effect of general poverty paired with high rates of HIV infection is dramatic as the epidemic strikes an already very vulnerable population. The World Bank points out that because low-income households are more adversely affected by an AIDS death than are other households, the epidemic will tend to worsen poverty and increase inequality (World Bank 1999a:36).

The effect of HIV/AIDS on poverty is difficult to distinguish from general poverty in sub-Saharan Africa. The Tanzanian Poverty Reduction Strategy Paper outlines the following characteristics of poverty in rural Africa:

#### **Box 1. Characteristics of poverty**

- *Poverty is largely a rural phenomenon*
- *The poor are concentrated in subsistence agriculture*
- *Urban poverty is widespread and increasing*
- *The youth, the old, and large households are the poorest*
- *Women are generally poorer than men*

Source: The United Republic of Tanzania 2001b

### *2.3.2 Impact at the household level*

The household and the extended family are largely overlapping categories, but are not necessarily congruent. The main difference is that a household might also include others than people of close kin.

The risk of the household falling below the poverty line is high because the victims are the productive members of the household (Tibaijuka 1997:972, see also Desmond, Michael and Gow 2000:3). Some households may have resources enabling them to cope with problems while others have fewer resources and may reach the end of a process ending in dissolution.

The HIV/AIDS epidemic affects the labour available in the household. In rural areas, the household and agricultural production should be considered one entity (Loewenson and Whiteside 1997:32). Illness and death from AIDS cause depletion of the resources of the household. The family experiences reduced income when a breadwinner is unable to continue working. The more vital the role that the person has in earning the family's income, the more dramatic are the consequences. The reduced income is often paired with a significant increase in expenditure.

#### *Reduced income*

The inability to work and the eventual death of members of the household reduces the amount of labour it has for subsistence agriculture, cash income generating activities and ordinary wage labour, hence limiting the resources of the household. A study from Tanzania shows that a woman with a sick husband spent 60 % less time on agricultural activities than she would normally do (UNAIDS 2000g:32). This illustrates the inter-relatedness between subsistence agriculture and the labour resources of the household. Loewenson and Whiteside point out that decreased revenue from loss of labour is one significant impact of AIDS (Loewenson and Whiteside 1997:30). In Botswana, with adult HIV prevalence rate exceeding 35 %, one quarter of all households can expect to lose an income earner the next ten years (UNAIDS 2001a:7).

#### *Increased expenditure*

Not only medical treatment but also funeral costs represent a significant increase in household expenditure (Barnett, Whiteside and Desmond 2000:19). Tibaijuka reports from the Kagera Region in Tanzania that in most households virtually all household cash income went to pay medical bills due to AIDS. The households had to sell assets or borrow funds to cope with the increased expenditure (Tibaijuka 1997:972). Studies from Rwanda have shown that households with an AIDS patient spend on average 20 times more on health care than households without an AIDS patient (UNAIDS 2001a:7). From Kagera Region in Tanzania it is also reported that households with an AIDS death spent, on average, 50 % more on funerals than on medical care (UNAIDS 2000a:222).

This situation forces the household to embark on strategies to cope with the difficulties of substantially reduced income. The household is caught in a double

bind of needing more resources at a time when the production capacity of the household is reduced (Barnett and Whiteside 2001:370). The ability of the household to cope with the problems depends on its financial base. While richer households can meet the increased expenditure on medical costs and reduced labour income, poorer households have to apply other strategies. The outcome may end up being disastrous if the process is not effectively halted.

### *2.3.3 Household coping strategies*

The African household has demonstrated pragmatic responses to a range of problems. Households faced with acute threats, such as famine or AIDS, apply a range of responses to minimise the impact (see e.g. Webb and Reardon 1992, Corbett 1988). The impact from AIDS is mainly counteracted by *reducing expenditures, diversifying income* and *alleviating the loss of labour* (UNAIDS 1999b:17). The strategies may be effective in the short run but may have long-term negative effects.

#### *Reducing expenditures*

A smaller financial base forces the household to reduce consumption and hence the quantity and quality of food (Michiels 2001). Food consumption has been found to drop by 41 % in families hit by AIDS (UNAIDS and UNICEF 1999:4). Other studies, e.g. in the hard-hit Kagera Region in Tanzania, showed that, among the poor, AIDS deaths led to a general consumption drop of 32 % and food consumption drop of 15 % (UNAIDS 2000a:222).

#### *Diversification of income*

The household seeks other sources of income. Unskilled labourers may enter or increase their participation in the informal economic sector. Women may be forced to engage in activities generating cash income in addition to caring for the children and the household chores (Barnett and Haslwimmer 1995:108-111). The male household members' migration to urban areas in search of employment is another strategy for maintaining family or household income.

#### *Alleviating the loss of labour*

The loss of labour and the economic impact resulting from illness and loss of an income earner in the family is often compensated through changes in the pattern of work in subsistence agriculture and wage labour. The extent of labour-intensive subsistence agriculture is reduced (Barnett and Haslwimmer 1995). Younger household members of school age are often needed for productive work (Danziger 1994:907-908). A most serious consequence is the frequently reported withdrawal of children from school.

### *2.3.4 Long term consequences*

The HIV/AIDS epidemic tends to drive the household into a process from which it may be difficult to break away. The process may be illustrated by dividing it into the three phases of household impact, "the illness, the death, and the long-



term consequences" (Loewenson and Whiteside 1997:30). The impact of the first stage of coping mechanisms are reversible in the sense that the reallocation of economic resources and labour has only a temporary consequence. The second stage is irreversible as assets of the family and household may be converted into ready cash to meet the changed requirements. More important in this stage is the problem that children are deprived of education and care, a process which is difficult, if not impossible, to reverse. The third stage in this process, if not halted in the first or second stages, is the household entering a state of dependence on charity or eventually breaking up.

If the household disintegrates, the children are the most vulnerable. Neglecting the need of these children is likely to have a negative impact on the society by causing and increasing number of "street children", particularly in the urban areas (Preble 1990:679). The growing number of street children will produce a youth culture prone to crime, prostitution and drug abuse.

## 2.4 The gender aspect of HIV/AIDS

### 2.4.1 HIV/AIDS and women in Africa

One of the characteristics of the impact of HIV/AIDS in Africa is the different impact on men and women. Women and young girls are very vulnerable to the HIV/AIDS epidemic. It is estimated that in sub-Saharan Africa 55 % of the HIV-positive adults are women (UNAIDS 2001a). Women are biologically more likely to be infected than men (Berer and Ray 1993:45, see also Loewenson and Whiteside 1997:5, and World Bank 1998a:33-34). This is particularly evident among young adults. The HIV prevalence rate among young girls is twice the rate among boys of the same age cohort. The UNAIDS *Report on the global HIV/AIDS epidemic June 2000* gives the following figures (highest estimates) for HIV prevalence among young adults in Malawi, Mozambique, Tanzania, Zambia and Uganda.

**Table 3. HIV prevalence among young adults (highest estimates)**

	Females (15-24)	Males (15-24)
Malawi	16.04	8.00
Mozambique	16.11	8.97
Tanzania	9.27	5.28
Uganda	8.99	5.12
Zambia	18.68	9.32

Source: UNAIDS (UNAIDS 2000g)

The higher rates of HIV infection among young girls are explained not only by the biological differences in the risk of contracting the infection. Cultural constructions of what constitutes masculinity, femininity and sexuality also make women more susceptible to contracting the virus. In much of Africa girls tend to have their early sexual activity with older sexually active men who may have been exposed to the HIV virus. Young men at the advent of their sexually active period generally do not have sexual relationships with the more heavily infected age groups (UNAIDS 2000g:9). Such socio-sexual factors may partially

explain significant differences in rates of infection between girls and boys. Young women engage in sexual relationships with older men for social and economic reasons. Furthermore, men tend to want younger girls for their casual sexual relationships probably expecting to reduce their risk of HIV infection.

#### *2.4.2 The burden of AIDS on women*

The overall processes affecting the household are outlined above. Within the household, men and women have unequal responsibilities as well as access to resources. The Tanzanian Poverty Reduction Strategy Paper acknowledges that there is a gender bias in the control of household resources (2001b). This makes the situation for women very difficult. Contributing factors to the burden on women include high levels of female illiteracy, little or no economic independence from the household and weak attachments to labour markets other than the informal. Furthermore, poverty may force women into dangerous sexual liaisons (Marcus 1993:6-11). Women engaging in high risk commercial sexual activity are in a particularly dangerous situation as their economic and social conditions offer few, if any, viable alternatives.

The epidemic also hits hard women not engaging in any form of sexual activity for money. Social and cultural norms are often lenient on allowing men to have multiple sexual partners (Herdt 1997:10). Patterns of labour migration enhance the risk of men returning to their home area infected by HIV after periods of stay in urban areas or at large work schemes.

In rural Africa the unpaid work of women contributes much to the survival of the household. When the household is hit by illness and eventually death from AIDS or other diseases, the burden on the woman tends to increase. It is reported that people with AIDS, in particular migrant men, return home to die, placing severe burdens on the rural households (Marcus 1993:23). A few aspects of the burden on women can be outlined.

##### *Caring for the sick*

Women are expected to take the main burden of caring for people falling sick in the household, a task added to other tasks already taking much time and resource.

##### *Low income*

A large number of women have low or no income of their own. Women working in the informal sector are generally paid low wages.

##### *Less access to public health care*

The family may be less willing to spend the household's scarce resources on health care for women.

##### *Caring for children*

Women have the largest responsibility in caring for the children in the family.

### *Restricted access to family assets*

A widow may face problems in terms of access to family assets and savings as other members of the family may claim rights to the resources in the household when the husband dies.

Women are hard hit through the impact on the household as such. But it is not only the household sphere that poses a threat to women. Loewenson and Whiteside point out that impacts on women also include "loss of male spouses' work benefits and security, increased child care responsibilities, increased trading in sexual activities to secure income for household needs and increased vulnerability to sexual harassment and exploitation at and beyond the workplace" (1997:31).

## **2.5 Children and orphans**

### *2.5.1 The plight of children*

Children in sub-Saharan Africa are probably the most vulnerable group and suffer hard from the HIV/AIDS epidemic. Children may grow up in circumstances less than optimal for their development as limited resources may restrict the family's ability to provide sufficient care. Possible consequences are deterioration of the children's situation in terms of education and nutrition. From Zambia it is reported that more than 50 per cent of children are chronically malnourished (UNAIDS and UNICEF 1999:15).

Girls are the first to suffer as they are the most likely to be taken out of school to support the household (UNAIDS 1999b:21). It is reported that children are increasingly seen as a part of the labour force and expected to assist the parents from the age of 8-9 years (Barrett and Browne 2001, see also Danziger 1994:907-908). Extensive involvement in the farming tasks of the household is not compatible with maintaining an adequate focus on education. The primary school enrolment rate in communities that are hard hit by HIV/AIDS is decreasing. A recent report from South Africa states that since 1998, enrolment in first grade has dropped 60 %, and the decline is even more dramatic for girls, suggesting a growing gender imbalance (USA Today 2002). Furthermore, schooling facilities may be severely affected by the increasing deaths from AIDS. A recent report from South Africa also points to the grim fact that 85 % of schools in the province studied have reported the death of teachers "presumably" from AIDS-related illnesses (USA Today 2002). The loss of qualified teachers will severely undermine the education system in countries hard hit by HIV/AIDS.

### *2.5.2 Vertical transmission of HIV*

A significant number of children are born with HIV. In the sub-Saharan countries these children have a very dim life expectancy and most of them die before they are two or three years old (Lyons 1998) as children progress to disease and death after HIV infection much faster than adults (Preble 1990:674). Estimates indicate a vertical transmission rate of 25 % to 35 % in developing

countries. The vertical transmission of the HIV virus, from mother to child, represents a severe challenge. HIV can be transmitted during pregnancy, labour and delivery or breastfeeding. None of the countries on which this study is particularly focused have any procedures of administering drugs to prevent this kind of HIV transmission. In South Africa, however, there is an ongoing controversy on the use of drugs for reducing the risk of vertical transmission (Dale 2001). About mother to child transmission and medication, see 2.1.6.

In 2001, 500 000 children below the age of 15 died from AIDS in sub-Saharan Africa (UNICEF).

**Table 4. Estimates of annual deaths in children from AIDS**

	Number of annual deaths in children (highest estimates)
Malawi	22,000
Mozambique	32,000
Tanzania	30,000
Uganda	32,000
Zambia	24,000

Source UNAIDS (UNAIDS 2000g)

### 2.5.3 Orphans - the most vulnerable

Growing numbers of orphans are an aspect of a full-blown AIDS epidemic. Some children become orphans at an early age because their mothers are infected with HIV at time of pregnancy. A large number of children are orphaned when parents fall sick and die while the children are at a very vulnerable age. Nearly 80 % of those infected with HIV are in the 15 – 45 age bracket, which is the prime period of caring for children. It is estimated that from its beginning the epidemic has left more than 13 million children in sub-Saharan Africa orphaned (UNAIDS and UNICEF 1999:5). These cumulative figures include children having lost their mother or both parents to AIDS. UNAIDS, WHO and UNICEF define AIDS orphans as children who lose their mother to AIDS before reaching the age of 15 years (UNAIDS and UNICEF 1999:5, see also UNAIDS 2000g:120, and Brunborg 2002). According to this definition, a child losing only his or her father is not considered an orphan.

**Table 5. Estimates of AIDS orphans**

	Cumulative number of orphans	Estimated number of AIDS orphans alive and under the age of 15 by end 1999
Malawi	390,000	275,539
Mozambique	310,000	248,177
Tanzania	1,100,000	666,697
Uganda	1,700,000	997,426
Zambia	650,000	447,114

Source UNAIDS (2000g:124) and UNAIDS and WHO (2000)

The crisis of large numbers of AIDS orphans has become more serious than anticipated a decade ago. In 1990, the World Health Organisation projected a total of 10 million AIDS orphans world-wide by the year 2000 (UNICEF

1991:3). The cumulative numbers have risen to 13.2 million, of whom 12.1 million are in sub-Saharan Africa (UNAIDS 2000g:124). UNAIDS and UNICEF estimate that in sub-Saharan Africa the current number of orphans under the age of 15 is in excess of 10 million (1999: 2).

The conditions for the orphans are difficult. Studies from Uganda have shown that the chance of orphans going to school is halved and that orphans face increased risk of malnourishment (UNAIDS 2000g:27). A study from Zambia showed that 32 % of the orphans in urban areas were not enrolled in school, as compared with 25 % of non-orphaned children (UNAIDS and UNICEF 1999:4-5). The younger the child is when orphaned, the less is the possibility of providing sufficient care to ensure the child's development. A study from the hard-hit Kagera Region in Tanzania showed that half of the orphans did lack the most basic necessities (Tibaijuka 1997:973).

#### *2.5.4 The support system for AIDS orphans*

In most parts of rural Africa the extended family has always been important in providing care for children whose parents are dead or not able to take care of their children. Children may be sent away to live with relatives when the family does not have sufficient funds. Caring for orphans is a characteristic feature of the rural African extended family. Preble argues that "orphans usually have been willingly and relatively easily adopted by other family members" (Preble 1990:678). However, if the adopting family have restricted resources, the children's education and nutritional status is likely to deteriorate. Today, a large proportion of households has to care for an orphan. Although many orphans are taken care of by the relatives and incorporated into existing households, the stress on the resources of these households may be substantial (Barnett and Blaikie 1992). A study from Zimbabwe reports that almost half of the caregivers were grandparents of the orphans and a third of the caregivers were over 60 years (Foster *et al.* 1996:389). The study from Tanzania referred to above shows that many orphans were taken care of by grandmothers. The epidemic has further increased the dependency burden and jeopardised the future welfare of the surviving older generation (Tibaijuka 1997:972). In Tanzania the traditional system that used to take care of vulnerable groups is reported to be breaking down, which will mean an increased need for safety-net programmes (The United Republic of Tanzania 2001b:10).

A collaborative effort between the government and various institutions – local, national and international – are important for assisting people in need. In Zambia and Malawi, such collaboration has helped strengthen the effort to mitigate the suffering of orphans. (UNAIDS and UNICEF 1999). The UNAIDS/UNICEF report suggests action in support of children with particular needs.

## Box 2 Strategic action to help affected children

- Invest in poor communities
- Allocate resources more fairly
- Increase investment in basic social services, especially education
- Involve all sectors
- Coordinate action centrally

Source: UNAIDS and UNICEF 1999

## 2.6 Community impact and responses

### 2.6.1 Overall impact on the community

The HIV/AIDS epidemic has profound effects on the local community, and high HIV prevalence rates should be taken as indicators of severe impact to come. Not only are the resources of the household depleted, the financial and social infrastructure of the society is under increasing pressure. The impact on society is frequently described by the concepts *susceptibility* and *vulnerability* (Loewenson and Whiteside 1997:14-18). Susceptibility describes *the likelihood of experiencing the epidemic*. Features of the household or the community that enable HIV to be more easily transmitted may increase susceptibility. Vulnerability is a measure of *the impact and costs of the epidemic at different levels of society*. The increased household requirements generate substantial stress in the community. The disintegration of a large number of households may cause a general weakening of the social forces integrating the society. The International Crisis Group (ICG) argues that at the level of society, HIV/AIDS should be considered a security issue (ICG 2001). Agricultural production and food supply drop, families and communities break apart, and young people's future becomes insecure.

Added to the measurable factors of the epidemic are psychological stress and breakdown. Several reports indicate that people tend to distance themselves from those falling sick with AIDS. Patients have been abandoned from hospitals and banished from their households. Stigmatisation and fear of contamination seems to be the rationale behind these responses. Some studies have paid particular attention to the importance of counselling HIV/AIDS patients to overcome the stigma related to HIV/AIDS (Lie 1996).

### 2.6.2 Community coping mechanisms

The household attempts to cope with the problems caused by HIV/AIDS. There is, however, increasing evidence that the household is unable to overcome all problems caused by the epidemic. Ultimately the household may break up. At the level of the community there are responses and strategies aimed at alleviating the problems. The most important source of assistance to the household comes from relatives and community groups. The World Bank study from the Kagera Region in Tanzania found that 90 % of the assistance to families who lost breadwinners through AIDS came from family and community groups (UNAIDS

1999b:28-29). The UNAIDS report, *A review of household and community responses to the HIV/AIDS epidemic in the rural areas of sub-Saharan Africa* points out four different forms of informal grassroots organisation (UNAIDS 1999b:30-34):

#### *Social support groups*

The social support groups may take the form of labour sharing to help the affected households. Other examples from sub-Saharan Africa are grain saving schemes providing support to households in particular need. A third example of social support is assistance to the household at funeral time.

#### *Indigenous savings associations*

Different forms of savings association may play a vital role in meeting social security requirements. Both rotating savings and credit associations and conventional savings clubs are held out as popular and effective.

#### *Indigenous emergency assistance associations*

Specific initiatives may be taken to provide assistance to individuals and households in particular need. Barnett and Blaikie found that informal counselling groups are established by women to help each other in housework and farming activities (Barnett and Blaikie 1992).

#### *Self-help groups of people with HIV/AIDS*

People affected by HIV/AIDS take initiatives to overcome the difficult situation. Such self-help groups are informal and have low costs. Besides the material support, such groups are a major source of psychosocial support.

These few examples are only brief introduction to different forms of grassroots organisation. Further research on the functioning of actual organisations in the local community being considered for external support should be undertaken.

### *2.6.3 NGOs, CBOs*

In communities that are hard hit by AIDS, locally based organisations are important for mitigating the impact on families and households. Community based organisations (CBO) and non-governmental organisations (NGO) are important in AIDS care and support. The difference between grassroots initiatives and more formal CBOs are not very clear. Nor is the distinction between CBOs and NGOs always clear. There is a continuum from local grassroots support initiatives to the CBOs and the larger, more formalised NGOs.

In the hard-hit Kagera Region in Tanzania, various CBOs assist with food, education and home-based care (UNAIDS 1999b:60). The Tanzanian AIDS organisation WAMATA (Walio katika mapambano na UKIMWI Tanzania) has grown from a small grassroots organisation to an important community based organisation (UNAIDS 1999b:35). In Uganda, TASO (The AIDS Support

Organisation) has grown from a small community based organisation to a NGO (UNAIDS 1999b:35). TASO offers counselling, medical care and home care to people with HIV and AIDS (Hampton 1991). Other somewhat similar forms of counselling and care are reportedly found in Zambia (Williams 1992). From Malawi it is reported that in many villages there are “orphan committees” to assist those in need (UNAIDS and UNICEF 1999). A wide range of international NGOs also devotes effort towards reducing the impact of HIV/AIDS in sub-Saharan Africa. All five countries focused on in this report have organisations working with HIV/AIDS issues.

#### *2.6.4 Greater involvement of affected people*

The community is the key for effective responses towards care for and support for people living with or affected by HIV/AIDS (UNAIDS 2000g:87). The initiative on *Greater Involvement of People Living with or Affected by HIV/AIDS (GIPA)* could be considered an appropriate response towards devising sustainable strategies. The importance of GIPA is based on the recognition of the important contribution of people infected or affected by HIV/AIDS and creating space within society for their involvement and active participation (UNAIDS 1999a). Experiences from pilot projects in Malawi and Zambia showed that also including people affected by HIV/AIDS could facilitate broader understanding of the problems caused by the epidemic (UNAIDS 2000e:5).

#### *2.6.5 Best practices*

The HIV/AIDS epidemic concerns all dimensions of development. Early approaches to the epidemic tended to focus primarily on the health aspects. Today most studies emphasise the importance of cross-sectoral approaches as the epidemic has been shown to have significant impact on many aspects of the society. From the Kagera Region in Tanzania the rapid spread of HIV is associated with several factors, 1) weakening of traditional restraints, 2) frequent migration by one or both partners, 3) economic deterioration and social inequality creating conditions for both demand and supply of economically motivated sexual relationships (Tibajuka 1997:965). This pattern of factors is probably applicable to wider areas of sub-Saharan Africa. All these factors are linked to poverty. Poverty creates instability and migration. It drives people out of their traditional social networks.

The combination of general poverty and the rapid spread of HIV and AIDS hamper effective responses to the epidemic's deepening socio-economic impact. A realistic approach is to accept the fact that large numbers of people are going to die from AIDS. The efforts should be focused on prevention, medical treatment where possible, and on reducing the impact on individuals, households and communities hit by the epidemic. This section focuses in particular on the latter aspect.

Interventions to mitigate the consequences of the epidemic should be directed to strengthening the coping capacity of the household and the community. The



efforts should be aimed at reducing the human suffering and supporting households to overcome negative coping responses. The household is the most appropriate locus for assistance as it is the most important institution providing care for children, sick people and the elderly in rural Africa. To reach the households in particular need, local organisations are probably the most efficient agents. The UNAIDS report *A review of household and community responses to the HIV/AIDS epidemic in the rural areas of sub-Saharan Africa* points out that "it is important that programmes and policy are aimed at enhancing and strengthening the traditional coping responses of extended families and their communities" (UNAIDS 1999b:46). This report suggests the following structure of support to the households (UNAIDS 1999b):

*Improving agricultural production*

Most African households depend on subsistence agriculture. Labour- and capital-saving practices and new technology may help the household to maintain agricultural production.

*Income generation and diversification of sources of income*

The response from a household in economic distress is to diversify sources of income. Support schemes should aim at providing the household with alternative sources of income. Schemes to empower communities should specifically be targeted on women and youth.

*Reducing demands on women's labour*

The women bear a large part of the burden of the epidemic. The domestic work of women could be significantly eased by improving facilities for water supply, firewood, transport etc.

*Improving the welfare of children in need*

The children are along with the women in a very vulnerable position in most African societies. Efforts to help children should, however, not only be targeted at children in families suffering from AIDS. The problem of malnutrition and restricted access to education is a general feature to which assistance should be directed.

The above outlined focus will make households and society in general better prepared to overcome the impact of the HIV/AIDS epidemic.

It is not possible to make any coherent analysis and assessment of the impact and responses to the epidemic without including the gender aspect. During the last few decades, there has been much focus on women's problems and many development efforts have particularly targeted women. Much of this activity has aimed at improving women's access to resources and education and securing the legal position the women. Such efforts should be enhanced to further assist women in coping with the extra burden.

Efforts to mitigate the burden of people facing the impact of HIV/AIDS should be focused on local initiatives and organisations. Any effort towards assisting

communities hit by the impact of AIDS should take into consideration the already existing institutions.

Subsistence agriculture is a general feature of rural sub-Saharan Africa. In Mozambique it is estimated that 80 % of the population lives in the rural areas and that 90 % of this population gets its income from subsistence agriculture (Government of Mozambique 2000:9). FAO points out that the household is supported through improving the capability of agricultural production.

**Box 3. Strengthening the household through agriculture**

- Promote the use of socially appropriate high-yielding non-labour intensive crop-varieties
- Improve inter-cropping to reduce weeding
- Introduce high value and drought resistant food crops
- Reduce the need for expensive ploughs/oxen with zero or minimum tillage
- Introduce farming equipment than can be used by children and the weaker
- Promote diversification of income sources

Source: Michiels (2001)

It is widely agreed that orphans should be helped through strengthening local institutions and initiatives already functioning in the community. Many organisations working with children recognise that orphaned children should be cared for by the community rather than by institutions. The most appropriate way of intervening to improve the situation of children – both orphans and other children suffering from the epidemic – should be to enable families to take care of the children. The best support to orphans and children not sufficiently cared for by parents is to make families able to serve as foster homes (UNAIDS 1999b:36). Education is a mean to give children and orphans better chances to cope with the problems. Education is also a key element in reducing the spread of HIV (UNAIDS and UNICEF 1999:6). Efforts towards improving the situation of children should facilitate children's access to education.

Hunter and Williamson suggest the following intervention strategies to assist children, families and communities affected by HIV/AIDS:

**Box 4 Possible intervention strategies**

1. Strengthen the capacity of families to cope with their problems
2. Stimulate and strengthen community-based responses
3. Ensure that governments protect the most vulnerable children and families
4. Build the capacities of children to support themselves
5. Create an enabling environment for affected children and families
6. Monitor the impact of HIV/AIDS on children and families

Source: Hunter and Williamson (2000):

UNAIDS and UNICEF argue that human, financial and organisational resources are needed on a massive scale if affected countries are to overcome the escalating crisis (UNAIDS and UNICEF 1999).

## **2.7 Socio-cultural responses to HIV/AIDS**

All efforts towards establishing support systems for people and communities should pay adequate attention to how people interpret the HIV/AIDS issue. Both patterns of understanding of sexuality at large and local cultural-specific interpretations should be examined. The conceptualisation of HIV/AIDS varies from one community to another. This necessitates a particular focus on local socio-cultural models. Forster reports from Malawi that pre-existing cultural factors are relevant to the response to AIDS control messages (Forster 2001). Cultural practices not compatible with the impact of HIV/AIDS are prone to change in communities hard hit by HIV/AIDS.

Funeral practices of long periods of mourning and lavish gatherings of relatives and others might be difficult to uphold by households in a difficult situation. In Kagera Region in Tanzania, labour constraints have caused a shortening of the mourning periods (Tibaijuka 1997:970). Another example in some areas of sub-Saharan Africa is practices in which the widow undergoes a process of ritual cleansing that includes sexual intercourse. This practice is, reportedly, increasingly being abandoned when the death of the husband is suspected to be caused by AIDS (UNAIDS 1999b:43).

The role of traditional healers is a socio-cultural aspect of people's strategies for seeking comfort against the impact of HIV/AIDS. Throughout Africa alternative treatment of AIDS by traditional medicine has been an important response to the HIV/AIDS epidemic (UNAIDS 2000b). The role of such healers in effective prevention of HIV infection should not be underestimated.

## **3. Overview of Economic Impacts and Responses**

### **3.1 General macroeconomic effects**

For long, empirical studies gave little evidence that AIDS had any macroeconomic impact. However, the AIDS epidemic is demanding resources, resources that can be used in a more productive way. And according to recent research of African countries looking at key determinants of long-term growth show considerable reduction in the growth rate of GDP per capita. Africa's growth rate in income per capita without AIDS would have been more than two times the rate actually achieved in 1990-1997 (Bonnell 2000a). A UNAIDS background paper for African Development Forum (ADF) 2000 concluded that there is a systematic lack of data (UNAIDS 2000f). There is clearly a need for further research on the macroeconomic effect of HIV/AIDS in sub-Saharan Africa.

The overall impact of AIDS on economic growth derives from a reduction in the labour force (increased morbidity and mortality), a decline in savings and investment, and an undermining of social capital. All these aspects have an impact on the production units, from subsistence household farming to large manufacturing firms, mining enterprises and public service providers.

### **3.2 Changes in GDP and GDP per capita**

Loewenson and Whiteside found that HIV/AIDS only had a small and statistically insignificant negative impact on macroeconomic indicators (Loewenson and Whiteside 1997). This study was based on data from 51 countries. Other studies have modelled the macroeconomic impact in Tanzania (Cuddington 1991) and Zambia (Forgy 1994).

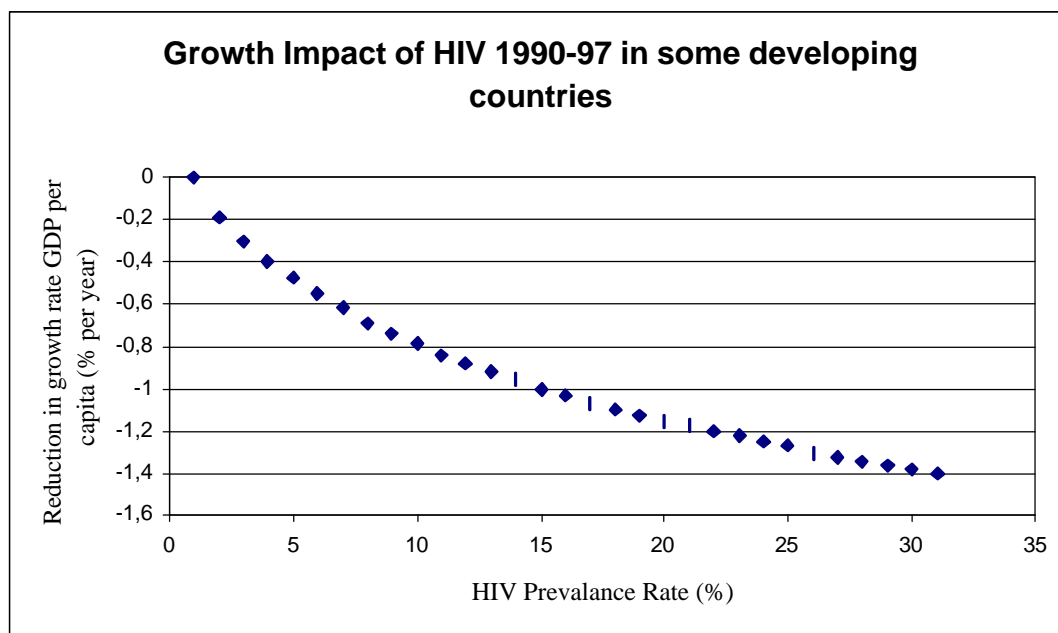
Bonnell discusses the effects of HIV/AIDS on key determinants of long-term growth, such as macroeconomic policy, societal institutions, human capital, investment and social capital. The study covers a cross-section of African countries over a multi-year period. Figure 3 shows the dramatic reduction in the growth rate of GDP per capita as a result of the AIDS epidemic (Bonnell 2000b).

The economic forecasts need to be set against a background of low per capita income, low growth in GDP per capita, severe balance of payments problems and unsustainable foreign debt ratios. Growth is strongly linked to domestic savings, reduced public sector deficits and efficient public enterprises and investment. These factors will be severely challenged by AIDS.

A study from South Africa uses a simulation model with two scenarios: a) a hypothetical "no-AIDS" scenario in which the economy continues its current performance, and b) an "AIDS" scenario in which the key AIDS-related factors affect economic performance (Arndt 2000). The simulation period from 1997 to 2010 suggests a steady diverging trend reaching a maximum differential in GDP growth of 2.6 % p.a.

The result is a GDP level 17 % lower in 2010 in the “AIDS” scenario. Per capita GDP drops by around 8 %. The simulations suggest that the net effect of slower growth and higher AIDS-related mortality, afflicting large numbers within the age group that constitutes the labour force, leaves the unemployment rate largely unchanged. A shift in government spending toward an increase in health spending and slower growth in total factor productivity are the main causes of the deterioration in growth.

**Figure 3: The growth impact of HIV**



Source: Bonnel 2000b

The results illustrate the importance of considering the long-term impact when analysing the economic effects of the epidemic. Over the course of a decade, the implications for macroeconomic performance are substantial.

### 3.3 Economic effects on enterprises

#### 3.3.1 General economic effects on enterprises

The effect of the HIV/AIDS epidemic on enterprises and economic performance is complex. The effect on enterprises is partly explained by sector-specific features.

The enterprise level includes service- and goods-producing units from one-man businesses to large manufacturing or service enterprises.

It is important to consider the difference between *susceptibility* and *vulnerability* to HIV and AIDS. The vulnerability, or the likelihood of being affected by the epidemic, is the crucial point for most enterprises. For example, migrant workers

in the agricultural sector may be susceptible to infection. However, if they are easily replaceable and have few benefits the sector is not vulnerable.

In other sectors the story might be different. Firms in some sectors might be hard hit even with relatively low susceptibility. If workers are hard to replace, the sector is vulnerable even with a low infection rate. The financial sector is an example of a sector that requires special skills to be effective. The sector has many highly educated and experienced people in key positions. Other particularly vulnerable sectors are sectors with extensive, and expensive, worker benefit programmes. Civil servants in public sectors often have good benefit programmes.

### 3.3.2 Impact on production factors

#### *Labour*

Labour shortage due to illness and death is the most detectable effect of HIV/AIDS. Enterprises will suffer from a reduced supply of labour, loss of workers and changes in composition of labour force. A high turnover in the work force means more resources used on training and education of new staff. The Uganda Railway Corporation experienced labour turnover rate of 15 % per year in the early 1990s (Ainsworth 1993).

Looking at eight African countries with HIV prevalence rates higher than 10 % of the adult population (Botswana, Kenya, Malawi, Mozambique, Namibia, South Africa, Uganda and Zimbabwe), an International Labour Organization (ILO) study states that the labour force in the year 2020 will be an estimated 10 to 22 % smaller - about 11.5 million fewer - than it would have been if HIV/AIDS was not a factor (ILO 2000).

**Table 6 Decline in labour force due to HIV/AIDS, 2005 and 2020**

Country	% loss compared to a situation without HIV/AIDS	
	2005	2020
Malawi	-10.7	-16.0
Mozambique	-9.0	-24.9
Tanzania	-9.1	-14.6
Uganda	-16.3	-15.8
Zambia	-4.7	-2.3

In sub-Saharan African countries there is a general surplus of unskilled labour and lack of skilled labour. Thus skilled personnel are harder to replace and the enterprises that require a relatively highly educated staff are more vulnerable to the impact of the epidemic. Certain key positions may be difficult to fill with adequately skilled personnel. Specialists whose services are crucial for the operation of a technologically advanced enterprise, such as diamond valuers or mechanics, may be very difficult to replace. The solution may sometimes be to engage expensive expatriates to do the job. A recent ILO study in South Africa found that less than 40 % of employers believed they had a good chance of replacing skilled workers. There has been a common opinion that AIDS is a disease among poor people with little education. However, empirical studies

show no evidence of this. A relatively high income gives workers the opportunity to spend money on commercial sex. A study from South Africa indicates that unskilled workers have lower infection rates than middle management (Barings Bank 1999).

The loss of workers, often skilled and experienced, together with increased entry of young unskilled personnel into the labour market, is likely to lower both the quantity and the quality of the workforce.

Some studies recommend firms to respond by reduce dependency of manual labour through becoming more capital intensive (USAID 1996). Such a strategy could fail depending on the extent of the cost increases needed to equip new staff with appropriate education and training to operate machines. Greater capital intensity would make each worker more valuable, and the loss of an experienced worker would be more costly, hence increasing the enterprise's vulnerability to staff morbidity and mortality. It is estimated that an unskilled worker falling sick from AIDS costs a business in southern Africa around US\$ 200 a year in lost productivity, treatment, benefits and replacement training. The cost for senior and skilled staff is far higher (UNAIDS 1998b).

### *Capital*

All enterprises require investment to maintain or increase capital stocks. The possible sources are reinvested profits or money raised through other sources such as banks, financial institutions, personal investors or stock markets. The effects of HIV and AIDS on the supply of capital from financial institutions and investors have not been thoroughly studied.

There are two important aspects to be considered for a potential investor: a) the *expected return* on invested capital and b) the *risk* of the project. Increase in morbidity and mortality in the community or the country where the investment is to take place, undoubtedly increases the risk of the project. Costs are likely to rise and profits are likely to fall in most sectors with increasing HIV prevalence.

The Minister of Public Works and Transport in Swaziland recently announced that he was unable to launch a big contract with a potential investor due to the high prevalence of the HIV infection (IPS). Transnational companies (TNCs) evaluate the possible economic impact of HIV/AIDS and that may be a reason to relocate the production, or not to establish production in the first place. There may also be other considerations than merely economic calculation. TNCs may be less willingly to expose their managers and consultants to an environment with a greater health risk.

HIV/AIDS clearly has a more complex impact on enterprises than the impact on labour and human resources only. Enterprises that have to spend economic resources on healthcare and benefits for infected employees will have less capital left to maintain or increase capital stocks.

### *3.3.3 Impact on productivity*

Absenteeism due to AIDS leads to a direct loss in productivity. People become absent due to own illness, or illness in the family. The extent of any decrease in productivity depends on how important the work of the person is for maintaining production. If the person occupies a key position or is part of an assembly line, the absence may significantly interfere with other workers' ability to work effectively as well.

The productivity of an enterprise depends also on factors outside the enterprise itself. Factors such as infrastructure, electricity supply and other public services are important, in addition to trusted and efficient suppliers and private service providers. The impact of HIV on any of these outside factors and organisations will indirectly influence the productivity of an enterprise.

In some companies, healthy employees are increasingly working extra hours to compensate for the time lost by absent colleagues. In doing so, not only do companies pay more in terms of overtime, but workers may be overworked and exhausted (USAID 2001).

Workers' motivation and ability to focus on the work is likely to drop if family members, friends and colleagues get ill and die. Mourning periods disable people from working with full power. The psychological stress the infection causes is hard to measure. Infected people might suffer from depression, and feel guilt and anger toward their family and workplace. Due to emotional shock they might not be able to concentrate on the job and work with the speed they used to.

Enterprises demand the best of their workers whether the workers contribute mainly physically or intellectually. The health of HIV-positive individuals will slowly weaken. Even if they are still able to work, their physical and psychological abilities deteriorate.

The performance of firms also depends on governments' ability to create an enabling environment. Export licences and other clearances are necessary for some firms. Delays in processing licence applications will influence the enterprise's ability to make the most of their capacity.

A study of the implications of HIV/AIDS on the Zambian economy used a Solow growth model to estimate the effects of AIDS in two different scenarios: with and without HIV. In the period 1999 – 2010, AIDS was found to halve the growth in total factor productivity in both the formal and informal sectors (Dougha 2001).

### *3.3.4 Impact on product demand*

High HIV prevalence and increased morbidity have effects on demand. Most goods are sensitive to consumer income levels. When capital is used for care and medicines, the proportion left for consumption of other goods shrinks. The result will be an increase in demand in some markets and a decrease in others. Markets that will suffer the most are markets with a high income elasticity,



typically markets for luxury goods.<sup>4</sup> Lower income will raise the demand for so-called inferior goods.<sup>5</sup> Markets for medicines and different health services are likely to grow as a result of the epidemic. The effect of the epidemic on public demand is mainly a political question. Likely consequences are a replication of the response at the household level, i.e. an increase in health budgets and a decrease in spending on other sectors.

### *3.3.5 Other economic effects of HIV/AIDS on enterprises*

The size of the production unit is important. The operation of small and medium sized firms is dependent on few personnel and thereby particularly vulnerable. Small businesses, often family enterprises, are widespread in agriculture, manufacturing, transportation, trade, tourism and even mining.

The dependency on scarce production factors is a critical factor in the production process. The more dependent a firm is on special skilled personnel or outside capital flow (investments), the more vulnerable it is.

Decosas and Adrien identified the main effect of HIV on industry to be increased labour costs and decreased availability of skilled labour (World Bank 1999b). However, other costs than labour costs may be influenced. Capital costs and insurance costs are likely to rise. The cost of social benefits, such as sick leave, medical treatment and funeral expenses, will increase. In Zambia, a typical large company will pay workers 90 days of sick leave at full pay and another 90 days at half pay. In Tanzania, a survey of six firms found that the annual average medical and burial costs per employee increased 3.5 times and 5.1 times respectively between 1993 and 1997 because of AIDS (Clancy 1998). Some companies report a doubling of their health expenses. The Indeni Petroleum Refinery in Zambia had higher AIDS-related expenditure in 1994, than its declared profits for that year. (Southern African Economist 1997).

### *3.3.6 Enterprise responses<sup>6</sup>*

When enterprises suffer from loss in demand and productivity, declining profits normally lead to a contraction of activities and intensified cost control. One method of reducing labour costs is to cut workers' benefits, replace workers with machines where possible, and/or outsource part of their activities. In South Africa, enterprises have used different strategies. South African Breweries truck drivers are now largely independent contractors. Mondi Kraft, a South African paper-maker's forestry division, has a quarter of the workers it had four years ago due to investing in less labour intensive technology (Economist 2001). By outsourcing and switching to a more capital-intensive production method, the

---

<sup>4</sup> The term luxury good is here used in the economic sense. A product can be luxurious for some people in some societies while regarded as a necessity in others.

<sup>5</sup> Inferior goods are goods for which a decrease in income means an increase in demand. An example could be maize flour as the basis for making the maize porridge that is widely consumed among the poor in southern Africa.

<sup>6</sup> The empirical examples in this section are mainly from South Africa, both because there are few studies regarding enterprise responses from the countries we looked at, and because the enterprise sectors, apart from agriculture, are relatively small.

enterprises become less dependent on labour. But, as discussed earlier, investing in less labour intensive technology will probably make each worker more valuable and increase a firm's "per worker" vulnerability.

Other approaches to reducing vulnerability to the disease could include multi-skilling workers<sup>7</sup>; educating and counselling the workforce; shifting production to producing inferior goods; pre-employment testing (highly controversial); or harder treatment of ill workers (immediate sacking etc). Johanne Sundby points out that several employers in southern Africa provide medicine for key personnel (Sundby 2002), aiming to make the firm less vulnerable.

In 1998 the Health Economics and HIV/AIDS Research Division of the University of Natal in Durban (HEARD) surveyed a number of South African private companies. The aim of the survey was to document "best practices" in the management of HIV and AIDS at the workplace, and the case studies were the basis for a manual titled "Best Practices: Company Activities on HIV/AIDS in Southern Africa" (HEARD ). Over 60 companies were approached to participate. The research confirmed suspicions that South African businesses in general do not plan for the epidemic or make very token attempts to create awareness about HIV and AIDS. Similar projects were undertaken in Zimbabwe and Botswana. The main results from the studies are presented in a box below (HEARD):

#### **Box 5 A Best Practice survey**

The HEARD Best Practice survey highlighted key issues about the private sector and HIV management in South Africa:

- Most HIV prevention and outreach programmes were implemented through either the company clinic or the corporate social investment mechanism. This indicates that companies conceptualise AIDS either as a health problem or a problem of poverty and not one that might be endemic to them.
- Most companies are still in a state of denial about the epidemic. The environment in which business operate is so fraught with the hazards of economic downturn, labour action, and falling exchange rates that the impact of AIDS has been, and continues to be, sidelined.
- Most companies feel that the conversion to a defined contribution arrangement, in which the employees bear risk benefit costs, sufficiently indemnifies them against the escalating expenses in terms of benefits. While this removes the risk associated with benefits from the employer, other indirect costs such as training and recruitment, lost work hours and occupational health are largely being considered.
- Companies that did long-term planning were not analysing and utilising the trends apparent in ill health statistics for the past five years. Management in all companies in the sample admitted that they were confounded by projections of the scale of the epidemic. The epidemic that has featured so strongly and sensationally in the media for the past ten years is still not visible. This characteristic of the epidemic has contributed to complacency on the part of the private sector.

---

<sup>7</sup> Multi-skill means here to educate personnel to be able to hold a variety of positions within the firm.

A few notable case studies on enterprises have been published. Firms should be encouraged to publish such studies. Knowledge about other firms' experience may make enterprises more aware of the consequences of HIV/AIDS and also create awareness of the fact that the negative impacts can be reduced.

Harmony Gold Mining in collaboration with The AIDS Control and Prevention Project (AIDSCAP)<sup>8</sup> has developed and implemented an impressive STI prevention programme using community intervention. The programme included distribution of condoms among commercial sex workers together with peer education and access to free monthly examinations in a mobile clinic. The project reduced the prevalence of STIs in women at high risk from 50 % to 15 %. The STI rates of the hostel based miners also decreased by 46 %. The project cost R268 000 but demonstrated a cost saving of R6.8 million for the company. The pilot has grown into the full-scale Lesedi Project, and has become a collaborative effort jointly undertaken by the Department of Health and two other mining companies (Michael 1999).

South African Mondi Kraft has, in addition to downsizing the labour force, developed innovative training and information materials based on a thorough assessment of the company's needs. To reduce workers' susceptibility the company educates the general workforce about HIV/AIDS. The company has compiled written information on HIV and AIDS and has had several courses with managers, supervisors and the general workforce on HIV and AIDS (Michael 1999).

A study in Tanzania has demonstrated that treatment of other sexually transmitted diseases costing as little as US\$ 2.11 per case can cut the number of people getting HIV by over 40 %. New HIV infections in Zimbabwean factories with worker-driven prevention campaigns were a third lower than in factories without such campaigns. The campaigns cost US\$ 6.00 per worker (Michael 1999).

### **3.4 Sectoral impacts**

#### *3.4.1 Industries and growth potential*

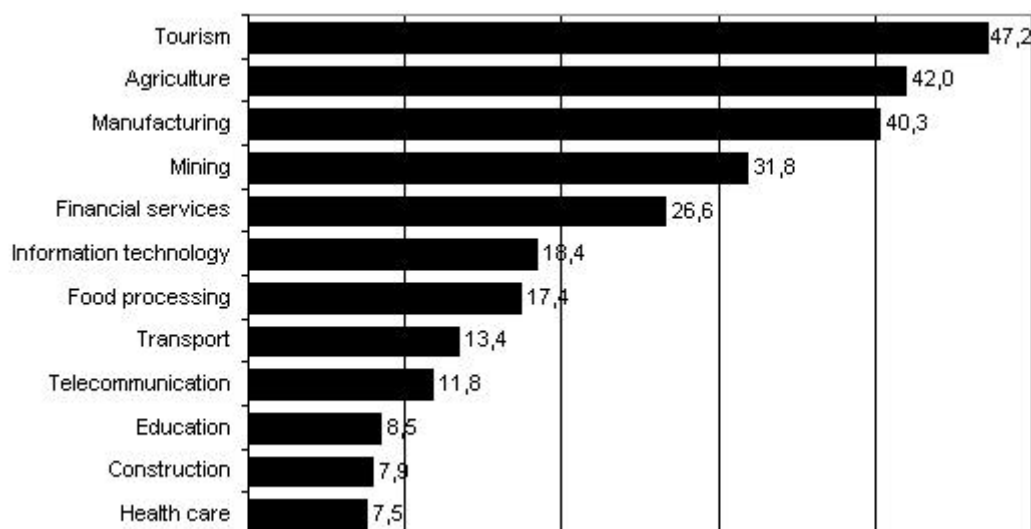
A survey made at the World Economic Forum's 1997 Southern African Summit in Harare revealed the participants' preferences on what industries they regarded as high growth industries in southern Africa. Tourism, agriculture and manufacturing were identified as having high growth opportunities by more than 40 % of the participants. Less than 10 % considered education, construction and healthcare to be industries with high growth opportunities. The reason why healthcare and education are not considered to have high growth opportunities might be because they are dominated by public enterprises. In low-income

---

<sup>8</sup> AIDSCAP was funded by the United States Agency for International Development (USAID) and implemented by Family Health International. The mission was to strengthened local capacity to design, implement and evaluate HIV/AIDS programs in 45 countries.

countries, the willingness to pay for such services is likely to be small, and investment in the sectors is largely dependent on public regulation.

**Figure 4 Industries in Southern Africa that reflect high growth opportunities (% of respondents)**



Source: Deloitte and Touche, 1998

### 3.4.2 Agriculture, subsistence and commercial

According to UN Food and Agriculture Organisation (FAO) estimates, AIDS has killed some 7 million of Africa's agricultural workers and 16 million more deaths may result by 2020. At current rates of infection, nearly a quarter of African agricultural workers will be sick or dead from AIDS-related causes within 20 years (Michiels 2001).

Farming and other rural occupations provide a livelihood for 70 % of the population of sub-Saharan Africa. Commercial farming and agriculture is also a major source of exports and foreign exchange earnings and provides food to urban populations.

For people mainly occupied in subsistence agriculture it is common to spend periods as migrant workers on large commercial farms or as workers in other sectors. The susceptibility to infection increases for persons that spend time working away from their social network, because that might lead to casual sexual relations. The inability of rural households to provide for themselves without this additional income exposes men and women to infection.

FAO recognises the biggest challenge to be the overall decline in food production. Even if we take AIDS out of the equation, Africa will have difficulties maintaining basic food production over the next two decades (FAO Committee on World Food Security 2001).

The adverse effects of the epidemic on smallholder agriculture are often invisible at the macroeconomic level. Research conducted in Zimbabwe in 1997 investigated production in households which had lost a household member to AIDS (UNAIDS 2000d). The findings are summarised in the table below:

**Table 7 Reduction in output on smallholder farms in Zimbabwe.**

Crop	Reduction in produce
Maize	61 %
Cotton	47 %
Vegetables	49 %
Groundnuts	37 %
Cattle	29 %

Source: UNAIDS 2000d

The loss of labour is particularly critical for the types of agriculture that require many hands in the harvesting or seeding/sowing/planting season. In an Ethiopian study, reductions in labour time as a result of AIDS were evident also for women and children. Hours per week in agriculture fell from 33.6 in non-afflicted households to between 11 and 16 in afflicted households (UNAIDS 1999b). In Tanzania, a woman whose husband was sick was found to spend 45 % less time in agriculture than if he were healthy. In Burkina Faso, AIDS-affected households observed a 25-50 % reduction in net revenues from agricultural production (FAO Committee on World Food Security 2001).

Loss of labour on all levels of resource management makes it difficult to exploit the resources in the best way. At the Ministry of Agriculture and Irrigation in Malawi, employees who died in service doubled from 5 to 10 per 1000 between 1996 and 1998, an increase largely attributable to AIDS.

In Gwanda in Uganda the families are mainly subsistence farmers. Many households have lost workers due to AIDS. A study concluded that this had diminished the families' food consumption, nutrition and well-being. In the mid-1980s Gwanda was a relatively wealthy community but today, largely due to HIV/AIDS, 45 % of the people living in the community are poor.

The coping mechanisms adopted tend to be a direct result of the reduction of labour time available for agriculture. One method for coping with AIDS is switching from cash to food crops. This has led to a drop in production to two-thirds of previous levels. In Namibia, worker-deficient households cultivate less land, have fewer cattle and less non-farm-related cash income. Households have stopped planting traditional food crops such as beans, which are high in protein and nutrients, replacing them with less nutritious root crops that are easier to produce (UNAIDS 1999b). To make ends meet, many families are forced to sell livestock, including draft animals used to prepare land for planting. This practice, known as "capital stripping," is the same response as in times of famine.

AIDS has orphaned an estimated 12.1 million children in sub-saharan Africa, see 2.5.3. Thousands of farm households are now headed by surviving teenagers, who have little knowledge about agriculture.

One response aimed at lessening vulnerability is to biofortify food crops. For example, researchers are now working to increase the nutrient contents of several basic food crops to help boost the body's immune system, a concept known as biofortification. The release of new maize varieties that deliver more protein should help people at risk to fight off HIV infection. To reduce the transmission of the virus from mother to child, efforts are also being made to popularise protein-rich crops such as soybean and new varieties of high vitamin A sweet potatoes. The absence of sufficient vitamin A in the diets of pregnant women and lactating mothers is believed to contribute to HIV-transmission from mother to child (Future Harvest). In addition, specially bred rice varieties that are well adapted to local conditions are developed, in part, with the idea of making weeding and harvesting easier for women (West Africa Rice Development Association (WARDA)).

FAO has indicated that it is necessary to “undertake a major exercise in rethinking the epidemic’s implications for agricultural policy and modify our work accordingly”. FAO has pointed out that the struggle against HIV/AIDS must be approached from every angle in a co-ordinated way (FAO 2001).

### 3.4.3 Manufacturing

Manufacturing is central to economic growth. The development of a manufacturing sector is seen as a necessary step for developing an economy and as a major source of employment. Most manufacturing operations are urban based.

Manufacturing firms can be more or less labour- or capital-intensive, they vary in size, and are therefore more or less exposed to the problem of HIV/AIDS. Labour-intensive firms are faced with the problem of higher turnover in the labour force, rising medical expenses and other labour benefits. Capital-intensive and small firms generally rely more on the experience and knowledge of a few key personnel and are therefore less susceptible but more vulnerable than labour-intensive firms.

A factor influencing productivity is *staff morale*. The loss of colleagues, increased workloads, potential discrimination, and general uncertainty about HIV/AIDS and the fear of infection may undermine morale. There have been instances of workplace disruption where workers refuse to work with a colleague known or believed to be HIV-positive (USAID 2001).

Some manufactured goods may be considered to be luxury goods. If they are produced for the home market they will probably experience falling demand. A way to reduce this problem would be to become more export oriented.

The sector is generally known to be highly competitive and thus highly cost sensitive. Industries that don't exploit natural resources and have a distant ownership, are generally very mobile. A Taiwanese clothing manufacturer with plans for establishing a factory with 5000 workers in Swaziland decided to establish in Lesotho instead because of the high HIV rate in Swaziland. A source in the Ministry of Public Works and Transport claimed that the company's scepticism toward training workers that potentially get ill within a few years was the main reason why the investment was not made in Swaziland (IPS).

#### *3.4.4 Transport, mining and construction*

Mining and construction of roads, dams, bridges etc are labour intensive activities. They employ large numbers of fairly low-skilled workers, while requiring a core of highly skilled people. For example, in South Africa skilled personnel comprise only 11 % of the mine labour force (USAID 1996).

These industries tend to employ a significant number of migrant workers. The workers often live away from their families for long periods. Males dominate almost entirely. This increases the risk of HIV infection for both workers and people living near the construction sites. A study in Ghana has found prevalence of HIV infection to be 5-10 % higher in the district where the Akosombo hydroelectric dam was under construction than in the neighbouring districts. The construction of the dam drew workers away from their families and increased commercial sex-work in the area. It also displaced 80 000 inhabitants (Descosas 1996).

Studies have shown that in Malawi road construction has been linked to the spread of HIV. Lorry drivers often spend a long time away from their families and are relatively affluent. They are thereby very susceptible to catching HIV and to spreading the virus. All available surveillance data indicate that infection rates are high and continuing to rise along the main transportation corridors between South Africa, Zimbabwe, Malawi and Mozambique (Keusen 2000). This is threatening, not only to the lorry drivers and sex workers along the routes, but also to their families and everybody living along the roads.

Major investment in the sector often have a large share of foreign direct investment. The HIV/AIDS situation in the country, in the particular sector or in the company will be part of the investment decision.

Large mining enterprises often provide housing for employees. This might be a problem for the enterprise if a worker becomes incapacitated but has not left employment, as they continue to occupy, not only a position in the company, but also their house, and thus prevent recruitment of a replacement (Barnett, Blas, and Whitside 2002). Models of the costs of AIDS in Zimbabwe estimated that the cost of workers' benefits to the mining industry would increase 12 times between 1995 and 2010. Training costs to replace skilled workers would increase fivefold by 2000 (Forgy 1993).

### 3.4.5 Tourism

Tourism is a rapidly growing sector and includes a variety of activities such as transport, accommodation and restaurants. Thus it has linkages to many other sectors at local, regional and national level. According to the survey at the World Economic Forum's 1997 Southern African Summit in Harare, tourism is seen as having a huge potential for generating growth.

There are two main sector-specific considerations to be made in relation to the tourism sector. Firstly, tourism can lead to a *spread* of the infection to new areas. This is most apparent in areas that initially have a low HIV rate and where "sex-tourism" is relatively common. And even if there is no sex-tourism, studies show that tourists are more willing to engage in sexual activity when on holiday than elsewhere (Bröring 1996). Secondly, a high prevalence of HIV and AIDS can be an *obstacle* for tourist travel to certain areas because they worry about the safety of hospitals, blood supplies, dentists and emergency medical services (USAID 1996).

Stigmatisation of an area on account of its high level of HIV/AIDS could have a significant impact on the sector's growth potential in that area. Forsythe, however, draws the conclusion, after a review of the existing literature, that there has been no definitive evidence that AIDS has had any lasting impact on the tourism industry anywhere in the world, despite the relatively high prevalence of HIV in some tourist destinations (Forsythe 1999). An example of the contrary is the story that the British military, fearful of their troops becoming infected, prohibited their soldiers from travelling to the tourist destinations of Mombasa and Malindi in Kenya. The international press picked up on the story and it led to widespread cancellations by tourists. One travel agency reported that they had lost US\$3 million in British travel contracts (New African 1987).

### 3.4.6 Financial sector

Employees in the financial sector are generally drawn from a small group of educated and professional people. The cost of employee infection could be huge due to high healthcare benefits, scarcity in supply of personnel, and time-consuming training and replacement.

While just 9 % of the people in South Africa's finance and insurance industries are estimated to have AIDS, 99 % of them are skilled or highly skilled. Firms in South Africa are hiring two and three trainees for each new managerial job in anticipation of attrition from AIDS (The Global Business Council on HIV & AIDS 2002).

A bank's profitability will be affected by the impact of HIV/AIDS on the client base. Savings will probably be reduced while the rate of bad loans increases due to firms performing badly or collapsing because of the epidemic. There might be a rise in costs because a more thorough investigation of clients' susceptibility and vulnerability to the epidemic has to be undertaken.



In a study of Barclays Bank in Zambia, the costs of staff deaths was approximately \$44 000 for 28 diseased staff in 1991; in 1992, \$157 440 for 38 diseased, and projections were worse for subsequent years. From 1987 to 1992, the death rate rose from less than 1 percent to almost 2.5 percent. The bank's workforce is young to upper middle age, with more than 90 percent less than 46 years. According to an update report in 1999, the bank has been losing 36 of its 1 600 employees each year, ten times the death rate at most US companies (The Global Business Council on HIV & AIDS 2002).

In South Africa, the ING Barings Bank projects that one-third of the semi-skilled and unskilled workforce will be HIV-positive by 2005, 23 percent of the skilled and 13 percent of the highly skilled workforce (The Global Business Council on HIV & AIDS 2002).

In Zimbabwe, Metropolitan Life Insurance Co. estimated that their wage bill would increase by about 15 % as a result of AIDS (Moore 1999).

The sector is not among the most susceptible sectors, but it is very vulnerable because of the high education level and replacement costs in the industry.

#### *3.4.7 Media*

Journalists and other media personnel have a relatively high income and are often "on the move". They are thereby a group that is likely to be exposed to the virus through casual sexual relations.

Media, especially radio and TV, is a powerful tool in the fight against HIV/AIDS. Radio has the widest reach, especially in rural areas. Nearly half of Zambian men and one third of women listen to radio at least once a week (UNAIDS). Many mass media campaigns aimed at young people do not get through effectively. Often the content, tone and "feel" of these campaigns fail to capture young people's interest and trust. As a result, the epidemic remains shrouded in ignorance and myth (UNAIDS). An attempt to reach the youth is the Zambian Trendsetters initiative (see section 4.6.2).

Research in South Africa indicates that the communities with the highest media penetration show the strongest signs of behavioural change and advocacy within social networks (Simon-Meyer 2002).

#### *3.4.8 Informal sector*

Informal enterprises generally use simple technical knowledge in labour-intensive production processes. They are often operated by one individual, perhaps together with a few paid or unpaid family members. They are normally very flexible towards changing environments. People of widely differing ages, education levels and social backgrounds operate informal enterprises. They engage in very diverse production and markets and it might seem unnatural to recognise all informal enterprises within the same sector. Thus to be effective, HIV/AIDS interventions should not treat the "sector" as homogeneous.

However, the fact that the enterprises are informal gives them some shared characteristics. For example, they are not organised in formal organisations or pressure groups, there is a lack of social security systems and health facilities, and workers cannot expect any pensions.

Informal enterprises are likely to be as susceptible as formal enterprises engaged in the same activities. Paid workers (non family members) are often easy replaceable since there is a surplus of unskilled labour and there is no contract securing them any benefits from their employer. Thus people working in the sector are very vulnerable if they get too sick to work as they lose their only source of income. The enterprises themselves might not be severely damaged because there are no benefits to be paid. This may be a particularly severe problem for seasonal workers in the informal agricultural sector.

If the owner of an informal business becomes HIV infected the firm is of course likely to suffer. A family member is not always ready to take over and that could leave families without any source of income. Small one-man firms or family businesses are particularly vulnerable, first because they are largely dependent on one person, second because their activities are rarely based on, or lead to, financial security, and third because a transient and vulnerable workplace itself – a market stall, a pitch by a traffic light, a roadside shelter to sell snacks, a place on a rubbish dump – means that they are likely to lose their place as soon as they are away from it (ILO 2000).

There is a danger that the needs and problems of the informal sector will be overlooked since the sector does not have any well-placed business leaders with the capacity to count the costs of their enterprises and put pressure on governments to compensate. UNDP has pointed out that the informal sector generated nearly ten times more jobs than the formal sector in the course of the 1980s, and that it makes a serious contribution to GDP (Bullock 1994).

#### *3.4.9 The professions*

The services provided by the professions (e.g. architects, lawyers, dentists, etc.) were already in short supply in most developing countries, even without the impact of AIDS. An increased morbidity and mortality rate in this sector could have a severely negative effect on other sectors, both private and public.

We have not been able to find thorough research or analyses of the impact on the professions. They are mostly urban based and high-income professions. The HIV infection rate is expected to reflect the rest of the urban population.

People working in this sector are mainly of good means and able to tackle increased expenditures for medication and treatment better than workers in many other sectors. If they do get infected they might be able to stay relatively healthy and be able to work longer.

#### *3.4.10 The public sector in general*

The social sectors have in general experienced loss of management and expertise to HIV/AIDS like private sectors. Particularly in the health sector, since losses have been accompanied by increasing demand for services.

In the more affected countries the cost of AIDS will (eventually) result in a restructuring of public budgets. There will be pressure to increase the budget of health and welfare, leaving a smaller portion to other ministries. As public servants experience increased periods of illness, a larger portion of the budgets will have to be used for sick leave and benefits.

Public institutions are not as flexible as private enterprises. They do not have the same response options as private firms to adapt to a shifting environment. Well functioning public institutions are important for economic and social development. The AIDS epidemic may well have a negative impact on some countries' ability to achieve good governance, which is presently near the top of the agenda in the development discourse. There are a number of linkages from public to private sector: the issuing of licences, efficient electricity supply, infrastructure, the supply of human capital, etc. Increased costs in the public sector will eventually cause an upward pressure on taxes.

#### *3.4.11 The health sector*

Most health service providers are found in the public sector. Private health service providers for the broad masses are dominated by traditional doctors, who are important providers of health care and treatment but are not included in this analysis due to lack of data.

The HIV epidemic has engendered a worldwide mobilisation of funds and interest, but the national governments are the main providers of capital to the sector. Decisions about the allocation of capital are political. Governments face trade-offs along at least three dimensions when considering the amount of capital diverted to the sector: treating AIDS versus preventing HIV infection; treating AIDS versus treating other illness; and spending for health versus other objectives.

The health sector is one of the more labour-intensive services. The rate of infection among healthcare workers is likely to be the same as that of the rest of the population (Loewenson and Whiteside 1997). A pilot study in Zambia found that mortality among nurses had risen 13-fold from 1980 to 1991 to 2.67 %, and appeared in 1994 to have risen to 4 %. Absenteeism had gone up from about 10 % to 15 % (Barnett, Blas, and Whiteside 2002).

Early studies showed no positive link between HIV infection among health staff and exposure to patients. However, healthcare workers constantly work in fear of contracting HIV from patient contact, and many of them daily manage fatally ill patients. The psychological stress such working conditions generate, combined with the increased absenteeism of HIV-infected workers, are likely to cause a drop in the productivity and the quality in the sector.

Increased demand for health services is the first visible effect of the epidemic. Studies of hospitals show a consistently high level of bed occupancy attributable to HIV/AIDS - greater than 50 % in surveyed hospitals in Uganda (Armstrong 2000) and Zimbabwe (Hansen 1999).

Whilst demands on services are greater than ever, any expansion in training new staff is constrained, not only by lack of capital, but also by losses of appropriately trained teaching staff. The loss of labour in the health sector is likely to have severe consequences throughout the society in the foreseeable future.

Most people who develop AIDS are prime-age adults. Without HIV, the 15 to 50 age group accounts for only 10 to 20 percent of all deaths in a developing country. Since several studies suggest that adults with AIDS use more healthcare prior to death than those who die of other causes, the percentage increase in the demand for care by adults is likely to exceed the percentage increase in their mortality due to AIDS. The productive age group that usually finances healthcare becomes a net consumer of services.

It is important to keep in mind that AIDS is the term for a syndrome of acquired immune deficiency caused by infection with HIV, which kills or harms the body's immune system. People with this syndrome have a strongly weakened ability to fight infections and certain cancers, see 2.1. Because of the many opportunistic infections AIDS patients can get, the treatment is complicated and costly. The latest therapies for AIDS cost about US\$ 10,000 annually. This is many times the GDP per capita in most African countries. On average, treating an AIDS patient for one year is about as expensive as educating ten primary school students for one year (Bollinger 1999). The costs of pirate medicine are a fraction of the cost of "brand" medicine. We will, however, not comment on the ongoing drug debate.

Mental illness and forgetfulness are among the symptoms of some of the opportunistic diseases associated with HIV/AIDS. Patients with such symptoms will require extra care and patience from the caregivers.

A study from Zimbabwe indicated that HIV/AIDS patients required considerably more hospital care than non-HIV/AIDS patients. In five of the seven hospitals visited, the average costs of an inpatient stay for an HIV/AIDS patient were found to be as much as twice as high as for a non-HIV/AIDS patient. The difference should be attributed both to higher direct costs per inpatient day as well as longer average length of the hospital stay. Hansen states that the impact on hospital services of the increasing number of HIV/AIDS patients will most probably be enormous (Hansen 1999).

As a response to the challenges in the health sector Barnett, Blas and Whitside have made a checklist of problems and proposed solutions in the health sector (Barnett, Blas, and Whitside 2002).

**Table 8 Health sector checklist to tackle HIV/AIDS related problems**

<i>Problem</i>	<i>Proposed solution</i>
Health staff stress and burnout	Open discussion on concerns to staff Training in coping and stress management Participation in decision making
Ethical dilemmas for health staff	Open discussion of issues, case studies or specific examples Treatment protocols setting standards of reasonable care
Mortality and absenteeism of health staff	Better information on personal risks Adherence to safety procedures and provision of protective equipment HIV-positive staff not care for TB patients
Training and replacement of staff	Retain existing staff: improve public image of health professions, improve conditions of work, raise retirement age Increase supply of staff: expand training places, create new lower-level cadre to do routine tasks Improve effectiveness to staff: involve family members, reduce paper work, use all levels of health service Improve procedures to cope with long-term illness among key staff
Provision of effective health care within resource constraints	Use all levels of the health services Provide drugs and training especially at primary health centre level Plan for expected rise in TB cases, and involve health centres Emphasise “wellness” of people with HIV Target home-based care on needs and those most in need Facilitate peaceful death at home and provide adequate mortuary space
Co-ordination of donors and funding agencies	Discuss priorities with donors Discuss reporting and accounting needs with funding agencies Hold regular co-ordinating meetings
Co-ordination with private and traditional sectors	Contact professional associations, discuss issues of interest Provide training, especially in STI and TB treatment Train drug sellers and other informal providers in use of basic drugs

Source: Barnett, Blas, and Whitside 2002

### 3.4.12 Education

It is questioned whether there is a negative relation between education and the spread of HIV infection. Some research has indicated a positive relationship between education and HIV infection<sup>9</sup>. However, the long evident positive link between education, hygiene and health indicates otherwise. Indications from recent research<sup>10</sup> are that prevalence among teachers is not different from other groups and that prevalence in more educated groups are on the way down. The reason for higher infection rates among the more educated might be urban lifestyles and a higher prevalence of high-risk commercial sex. It appears unlikely that education in itself would lead to a higher infection rate. The opposite seems more likely. A study on AIDS in the Maputo corridor found that for women, sexual risk behaviour was linked to high unemployment, low levels of education and acute poverty (Wilson 2000).

DAC<sup>11</sup> articulated in 1997 bilateral donor priorities and goals for development. Under social development targets the first goal is “universal primary education in all countries by 2015”, the second is “demonstrated progress toward gender equality and the empowerment of women by eliminating disparity in primary and secondary education by 2005”. DAC stated that these targets were “ambitious but realistic”. The reason why these goals now seem unrealistic in our five focus countries is, according to Peter Badcock-Walters and Alan Whiteside, that AIDS was not considered when these declarations were put forward (Badcock-Walters 2000).

The volume and quality of education services depend on the number of teachers, on teaching facilities, and on system managers. HIV/AIDS has long been threatening the supply of educators. In Zambia, for example, the mortality rate amongst teachers in 1998 was 39 per 1000, 70 % higher than that of the 15-49 age group in general in the population. The number of deaths of teachers in service was equivalent to about two-thirds of the total annual output from the country’s teacher training colleges (Kelly 1999). In Malawi, the World Bank has predicted that over 40 % of education personnel in urban areas will die from AIDS by 2005 (World Bank 1998b). The same dramatic mortality among teachers has been found in some other countries, but not in all. There are also indications that teacher mortality from HIV/AIDS will decline over time along with what may be happening generally with the more educated groups.

Most of the focus on the impact of HIV/AIDS on the sector’s workforce has been on teachers, but managers appear to be in much shorter supply than teachers are. An increase in the morbidity and mortality among them may have huge consequences.

---

<sup>9</sup> One study found that the most educated women were 3.13 times more likely to be HIV-positive than the least educated women (Fylkesnes et al 1997)

<sup>10</sup> “The impact of the HIV/AIDS epidemic on the education sector in Sub-Saharan Africa”. Bennell, Hyde, Swainson. Sussex 2002.

<sup>11</sup> The Development Assistance Committee of the OECD

Tarfica estimates the morbidity among teachers and managers under the assumption that teachers' prevalence of HIV is similar to that of the overall adult population (it is probably higher). She finds that Zimbabwe, Zambia and Uganda will lose about 2.1 %, 1.7 % and 0.5 % respectively of teachers and education officers to AIDS *each year* over the 2000-2010 decade (Tarfica 2000).

The learning process in schools will be negatively affected through increased absenteeism, both of the pupils themselves and of teachers, as a result of the epidemic. HIV-infected teachers will become increasingly unproductive because of opportunistic infections. According to empirical research each infected teacher and education officer will lose six months of professional time before developing full-blown AIDS and then an additional 12 months after developing the full disease (Tarfica 2000). If one included absenteeism due to HIV/AIDS-related sickness in Tarfica's study, Zimbabwe would lose 3.2 % of available teacher and education officer labour each year over the 2000-2010 decade; Zambia and Kenya 2.5 % and 2.1 % respectively; and Uganda about 0.7 %. Not included are teachers absent because of illness in the family or attending colleagues' funerals.

Schools are stable institutions in most communities, and in areas strongly affected by HIV/AIDS, some structures in the society are likely to break up and people often suffer from emotional trauma. In such communities schools might have an important function as a stable institution for depressed and mourning children.

The income effect of AIDS on infected families could result in a lack of funds to send children and youngsters to schools or universities. A 1990 study in Uganda found that 47 % of households with orphans did not have enough money to send children to school, as opposed to 10 % of households without orphans (Muller 1990). In Tanzania the World Bank reported that school attendance by 15-20 year-olds was cut in half in households that lost an adult female (World Bank 1995). A survey from Zimbabwe in 2000 found that 31 % of the households interviewed had a child who was not attending school following the death of the mother (Mutangadura 2000). In Zambia, focus group discussions with AIDS-affected households in Mansa district found that 55 % of these households were unable to meet the costs of their children's education as a result of AIDS (Kasawa 1993).

The result is a lower demand for educational services compared to what would have been the case without AIDS - not only as a result of fewer children but also because they have to work. Whether there will be a *decline* in demand compared to today's level is questionable because of rising birth rates. There will however be a decline in the *growth rate* of children attending school.

With still increasing numbers of infected the impacts of HIV/AIDS on the education sector will be profound, not necessarily all in the same direction. The most severe impacts lies in the future.

**Table 9 The costs of scaling up the AIDS response and the impact of HIV/ AIDS on education**

	% of all primary school pupils who lost a teacher to HIV/AIDS during the year	Resource gap (millions US\$)	Resource gap per capita (US\$)	Resource gap as % of GDP
Zambia	3.30 %	55.26	6.07	1.4 %
Malawi	1.79 %	48.24	4.39	1.9 %
Uganda	1.60 %	121.10	5.38	1.83 %
Mozambique	1.31 %	76.00	3.88	2.7 %
Tanzania	1.20 %	155.93	4.63	2.26 %

Source: UNAIDS 2000c

Table 8 shows the potential impact of AIDS on the supply side of the education sector. Column 1 shows the result of a UNICEF and UNAIDS study. Column 2, 3 and 4 are showing the results of a World Bank study and show the resource gap in AIDS programming, based on the current level of capacity and the coverage targets (i.e. the difference between the cost of a scaled-up AIDS programme and what is currently being spent on prevention and care activities).

Schools and universities, education institutions as they are, can be effectively used to spread information on aspects with and effects of HIV and AIDS, and on how to prevent infection. Indeed, educational ministries are eager to develop and expand programmes for HIV/AIDS prevention and mitigation. To be ready to do that, more resources, educational materials and technical assistance are needed.



### **Box 6 A university response to HIV/ AIDS**

Generally, universities have been slow to respond to HIV and AIDS. The reason for this could be that the issues AIDS forces academics and students to address are uncomfortable and connected with "taboos" like sex and death. AIDS forces academics to look at their own lives, and it is easier to fall prey to the boredom and denial that has accompanied the epidemic - the tedious campaigns that have served to alienate rather than inspire, and the dullness of the messages underpinned by a false and naive morality.

As the peak of the infected are in the age group of 15-30 years, it is becoming clear that the epidemic will have a dramatic impact not only on the number of students who will enter the university infected, but more so on the number that will leave infected, the possibility that some will die whilst studying, and the working life-span of graduates.

The University of Pretoria in South Africa is developing an interesting response. They are working to get all levels of staff committed to a programme aimed at ensuring that an informed response to HIV/AIDS is fully integrated into all aspects of university life. The response from the different faculties is interesting to look at. It is almost as if the more familiar the subject is, the more difficult it is to move away from obvious and conventional responses. The "non-obvious" faculties have taken the lead, like the faculty of Engineering, whilst the faculties of Arts and Education are lagging behind, according to Mary Crewe, the Director of the Centre for the Study of AIDS at the University of Pretoria.

Source: (Crewe 2000:11-12).

#### *3.4.13 Military, security*

Because military personnel are mainly young and sexually active men who are away from home and out of their social conventions and structures, they are among the most susceptible population to HIV. Not only are they particularly exposed to STIs but also to the possibility of infection through wounds and contaminated blood. HIV transmission is five to twenty times more likely where other STIs are present, see 2.1.6. STI infection rates among military personnel are two to five times higher than in civilian societies. The ministries of defence in sub-Saharan Africa report averages of 20-40 % HIV-positive within their armed services, with rates of 50-60 % in a few countries where the virus has been present for more than 10 years (USAID 1996).

HIV/AIDS is a slow developing disease. It does not immediately take soldiers out of the front line. Thus militaries have been slow to initiate HIV/AIDS programmes and have remained distanced from civilian programmes.

Higher morbidity and mortality will of course increase the costs of recruitment and training. But it can also lead to instability and weakened security. Especially loss of officers may lead to instability both within the forces and between different forces. Educated officers are harder to replace than private soldiers. A rise in the private/officer ratio will cause the quality of education to fall, there will be less control with the forces, and command lines may break. There will be more room for armed personnel to act on their own. Armies or groups of armies

may act in unforeseeable ways that could trigger an unstable situation both within and between forces.

In many African countries armies are going to be nearly wiped out if one is to believe the rates of HIV infection reported at present. A paper on the strategic implications of HIV/AIDS in South Africa (Heinecken) speculates about regional conflicts precipitated by the virus. For instance, the repatriation of Malawi and Mozambique HIV positive miners amounted to increase tension between South Africa and the neighbouring countries. Also the large number of orphaned juveniles will be destitute and very likely to get involved in crime. It is concluded that although "the exact impact is still unknown and difficult to predict, the possibility of South Africa assuming a leading role in securing peace and stability in the region appears to be ever more elusive".

The fact that military personnel are mainly young men, living in closed communities, and that they are ready to learn could be used as an advantage in the fight against HIV. Information regarding the symptoms, how the virus spreads, and potential ways of protection could be a part of the training programme.

Military troops moving from one area to another contribute to spreading the infection. It is important to fight the disease to moderate the spread and for security reasons.

#### *3.4.14 Local government*

The role of local government and politicians is more immediate and intimate than the role of politicians at national level. At a smaller scale, and more constrained, local governments are facing the same problems and opportunities as national governments. They have the opportunity to interact with groups who are at the forefront of the epidemic. How local government fulfils its role regarding HIV/AIDS will depend on whether or not it perceives HIV/AIDS to be one of its natural development functions (Smart 2002).

Local government can invite people and groups to participate, create open channels for communication and create partnerships with public, private and civic organisations and enterprises. Together they can create local HIV/AIDS plans and keep the debates and the issue "warm". Local government institutions are the natural meeting point for discussions at community level.

There is no indication that the infection rate among politicians and government officials is different from the rest of the population. According to the Minister of Agriculture and Irrigation in Malawi, Aleke Banda, the workforce in the ministry has been reduced by a high percentage of infected personnel in a few years. Monetary resources and time are diverted to emergency occurrences instead of to new programmes as a direct result of HIV/AIDS (Kasunda 2002).

### *3.4.15 Politics and politicians*

At national level the role of politicians is primarily policy formulation, resource allocation and leadership. They have the opportunity to formulate policies and allocate resources to fight the disease. But the most important role might be leadership. By facing the problem, contribute to openness and by giving the right signals and initiatives, national leaders can make a large contribution towards hindering stigmatisation and misinterpretation of the effects of AIDS, how HIV spreads and how it can or cannot be cured.

### *3.4.16 Various social/development sectors*

There will be an increased need for social workers as a result of the epidemic. The sector employs a diverse group of people ranging from government workers, people working for international NGOs, to voluntary community workers. They all contribute to the welfare of society by offering care and support to individuals that need help for shorter or longer periods. They also seek to support families, and different groups within communities. In addition to care, social workers do an important job in spreading information. They are often close to groups that are very susceptible to HIV such as youth, street children and sex-workers. Social workers counsel and educate people and contribute largely to hinder the spread of HIV, and to avoid the stigmatising of AIDS-affected individuals and households.

People who get infected by HIV often feel powerless and experience many emotions and traumas. Hence, there is great need for caregivers to help families with planning and coping strategies (Harber 2002). To be able to do that, caregivers need education.

Just as health workers, social workers are working under considerable emotional stress and with the risk of being infected by caretakers. They may well feel overwhelmed by the scale of the problems they encounter. Therefore they might experience burnout and motivation problems.

Social workers will be more effective with a better co-ordinated response between sectors such as health, education and business (Harber 2002). Government institutions and large NGOs can try to bring organisations and people together to share experiences and goals and thus achieve a more effective response throughout society.

## 4. AIDS Problems and Policies in Norwegian Co-operation Countries

### 4.1 Aids policies and planning

There is international consensus that HIV/AIDS no longer can be seen as merely a medical issue. The extent and widespread impact of the disease, particularly in the hardest hit countries, to which all our focus countries belong, makes it a national socio-economic crisis. The future with regard to AIDS deaths does not seem bright. The number of people already infected is such that AIDS deaths will increase considerably in the first decade of the new millennium. In Africa the crisis will change from an HIV/AIDS crisis to a full-blown AIDS crisis. Therefore, it is more important than ever before that HIV/AIDS policies and planning are mainstreamed into social and economic planning.

An important objective of this study is to review economic and social policy and planning in the Norwegian co-operation countries. For a desk study like the present, this is a difficult task for several reasons. Firstly, there are no easy quantitative or qualitative criteria for what constitutes appropriate planning for AIDS and the integration of AIDS policies into national planning, policy and budget systems. Secondly, the real *outcomes* of plans and budget allocations are seldom analysed and one is therefore given to the study of plans and budgets themselves with the danger this entails for mixing plans and realities.

Based on what seems to be the latest consensus in the international arena on appropriate AIDS planning and policy (UNAIDS 2001b, and Bjorkman 2001), we have attempted to prepare a set of criteria for appropriate AIDS policy and for integrating such policy into national planning structures (mainstreaming). These will be used in the country level reviews below.

#### The AIDS Plan

A sample **AIDS plan** is outlined by UNAIDS in its "Guide to the strategic process for a national response to HIV/AIDS, section 3 Strategic Plan formulation" (UNAIDS 1998a). In addition to introductory sections with a description of the planning process and a simple overview of the history of HIV, current situation and response, the plan should consist of three important sections:

- The **Strategic Framework** would set out the guiding principles, the broad strategies and the institutional framework.
- The **Priority Areas and Strategies** should contain a brief description of the priority areas for action, including the rationale for their being considered priorities, general objectives for the area and broad strategy. For each priority area one would set out the key areas in need of response and for each key element, specific objectives and strategies, including key initiatives, identified partnerships and resources, with a description of the source.

- A section on **Management Mechanisms** would give a description of responsibilities and management mechanisms, including monitoring and evaluation, support for emerging strategies and accountability.

It is important to stress that how well the strategic plan works will depend perhaps more on the process of preparing and disseminating it than on the document itself. It is important that the plan formulation process itself produces political support and working partnerships even before the final draft is produced. It is also important that the plan is distributed to ministries, academic institutions, support groups, affected communities, development organisations and international donors and private sector companies in such a way that they will use the plan to guide their contribution to the national response to the pandemic.

#### Integration of AIDS issues into National Planning

All our focus countries have a Poverty Reduction Strategy Paper (PRSP) and heavily indebted poor countries (HIPC) decision point documents which form the basis for an agreement with the Bretton Woods institutions and wide groups of bilateral donors on the main lines of development policy and financing. Some of the countries also have national plans, usually with strong links to the PRSP/HIPCs.

Based on World Bank and UN recommendations for the handling of HIV/AIDS in PRSP/HIPC as well as national plans, the following seem important for the integration of HIV/AIDS strategies in such documents and processes.

*Firstly, at the macro level of visions, long term plans and budgets, the following aspects should be included:*

- The broad aspects of HIV/AIDS impact on macro and budgetary policies.
- Analysis of the impact of HIV/AIDS on *public revenues* and appropriate adjustment in macroeconomic planning and policy.
- Assessment of the effect of HIV/AIDS on budget allocation, for example to handle the loss of public servants by intensifying training and avoiding collapse in the health system.
- Consideration of availability of poverty action funds and social action funds to directly finance community level anti-HIV/AIDS action.
- HIV/AIDS should figure in debt relief discussions and documents. A portion of relief savings should be earmarked for HIV/AIDS interventions.

*Secondly, at the sectoral level, the national plan should include consideration of the following issues:*

- The **Education** sector should introduce policies to address the impact of HIV/AIDS policies both on the demand and the supply sides.
- For the **Health** sector one should formulate policies to cope with various scenarios in terms of access to and utilisation of medical services. Health sector services should also take care to include support to community and home based care, outreach support services and counselling.

- The **Agriculture and rural development** sectors should adjust their development programmes to respond to the needs of communities and households that have been affected by HIV/AIDS. Ministries of Agriculture should assess the impact on farming and the rural economy (traditional and commercial agriculture, food security, viability of irrigation schemes, micro-credit) and adjust priorities and resource allocation.
- The **Welfare and social protection** sector should revise their operations and coverage in view of HIV/AIDS
- The **Law and order sector** should produce strategies to counteract high mortality among members and the impact on security.
- The **Labour** ministry should assess the HIV/AIDS impact on labour productivity and labour supply and formulate policies to counteract this impact in partnership with private sector employers.
- The **Transport** sector should formulate policies to address the HIV/AIDS impact on the sector in view of the particularly high prevalence among transport workers.

*Thirdly, the national plans should contain **an analysis of HIV/AIDS** as a cause of poverty, a discussion of poverty and income inequalities and their contributions to conditions that make persons vulnerable to HIV infection and less able to cope with the consequences of being infected. Specifically, items that should be included are:*

- An analysis of the possible contribution of successful HIV prevention to fighting poverty
- The role of HIV/AIDS mortality as a factor in poverty reduction and economic growth
- In general, plans and PRSP/HIPCs should show a scale-up in the poverty reduction strategy to address the human development impact of HIV/AIDS

*Fourthly, the main strategies in the national **HIV/AIDS plan should be a central part of the overall national poverty reduction programme, justified and costed.** This would include:*

- Adaptation of the poverty reduction strategy to respond to specific needs (such as needs for orphans and the elderly, social services coverage and access to livelihood opportunities)
- Attention to the special needs of women in poverty reduction and HIV/AIDS as both breadwinners and caregivers.

*Fifthly, the national plans should include medium term goals and poverty monitoring indicators derived from the national HIV/AIDS plan.*

*Sixthly, short run actions for successful implementation of the national HIV/AIDS plan, with specific and monitorable targets that form agreements for debt relief, should be included in the national plan.*

Budgeting and Medium Term Expenditure Frameworks (MTEFs)

In order to assess the reality of mainstreaming of AIDS into national planning it would in practice be necessary to find out how reallocations in plans and budgets affect the outcome of government expenditure on the various goals. Because of the paucity of data this is not possible without considerable fieldwork.

A less ambitious method would be to assess the effect of planned reallocations on annual budgets and MTEFs. This has been attempted below for the countries where budgetary data is available.

## 4.2 Malawi

### 4.2.1 *Overview of population and HIV/AIDS*

The population of Malawi was in 2000 estimated at 10.4 million. The population growth rate was 1.2 % between 1990 and 2000.

Landlocked Malawi ranks among the world's least developed countries. The economy is predominately agricultural, with about 90 % of the population living in rural areas. Agriculture accounts for 37 % of GDP and 85 % of export revenues. 86 % (1997 est.) of the workforce is occupied in the agricultural sector. GDP per capita has been quite steady in recent decades, USD 153.1 in 1985 and 156.5 in 1999<sup>12</sup>. The growth rate has varied between a positive and a negative rate during that period, indicating some measurement problems.

Malawi has been severely affected by the HIV/AIDS pandemic. HIV prevalence information among antenatal clinic attendees in Lilongwe, Blantyre and Mzuzu has been available since the mid-1980s. From 1985 to 1993, HIV prevalence among pregnant women increased from 2 % to 30 %. In 1998, 26 % of antenatal clinic attendees tested HIV-positive.

Current HIV prevalence rates are estimated at 25 % in urban areas, 27 % in semi-urban and 12 % in rural areas. The number of people living with HIV or AIDS in Malawi was estimated at 800 000 in 1999. An accumulated number of 390 000 children under the age of 15 have lost their mothers or both parents to AIDS since the epidemic started. 40 000 children themselves were living with HIV/AIDS (UNDP).

HIV/AIDS-related deaths in Malawi are estimated at 80 000 in 2000. Total deaths are expected to peak around 2005 at 105 000.

### 4.2.2 *Socio-economic effects*

The economy depends on substantial inflows of economic assistance from the IMF, the World Bank, and individual donor nations. In late 2000, Malawi was approved for relief under the Heavily Indebted Poor Countries (HIPC) programme. The government faces strong challenges, e.g. to fully develop a

---

<sup>12</sup> Amounts are in 1995 USD.

market economy, to improve educational facilities, to face up to environmental problems, in addition to deal with the rapidly growing problem of HIV/AIDS.

Agricultural products, mainly tobacco and tea, provide Malawi's main income. The agricultural sector employs by far the largest proportion of Malawians. Production is highly labour intensive. Estimated numbers from ILO (2000) show a decline in the workforce of 10.7 % in 2005 and 16.0 % in 2020 due to HIV/AIDS. This will lead to a decline in production in all sectors, also in commercial farming and subsistence agriculture.

According to Bonnell (2000), the growth rate per capita will be 1.2 % lower than what it would have been in a non-AIDS scenario.

Malawi's general health indicators are particularly bleak. The ratios of population to health personnel are high. Most districts lack a doctor, and even nurses are in extremely short supply. Population per physician is 45 737, compared to 10 017 in Zambia and 21 970 in Kenya. These poor indicators cannot be blamed only on low levels of spending as health expenditures have remained between 2-3 % of GDP since 1994/95. Neighbouring countries with similar per capita expenditures exhibit better health indicators. The poor outcomes compared to health expenditure are related to poor effectiveness and poor access to drugs, among other problems in the health sector, especially in rural areas. Around 90 % of the healthcare workers fall within the age range with the highest HIV infection rate, hence attrition due to the disease is a serious problem (World Bank 2001).

#### *4.2.3 Aids discourse*

A search in the Internet archives of "The Nation", the biggest paper in Malawi, showed 38 articles regarding HIV/AIDS between mid December 2001 and late March 2002. The press cited the ministries of education and agriculture as both concerned at the high death rates of teachers, field assistants and officials in the ministries. The Government controls the five largest official newspapers and magazines in Malawi.

Because of the strict 30-year regime of President Banda until 1994, when the first multiparty election was held and won by Bakili Muluzi, there has been little of a culture to criticise and question current policy. In his first month as a ruler, Banda declared, "one party, one leader, one government, and no nonsense about it". Today there is no denial by the government of the seriousness of the AIDS epidemic. On the official website of the Ministry of Information, AIDS is listed just after malaria and malnutrition as amongst the most pressing problems facing the health authorities ([www.maform.malawi.net/](http://www.maform.malawi.net/)).

#### *4.2.4 HIV/AIDS, institutional focus and key policy statement*

In 1997, with UNDP support, the Malawi Government decided to develop a comprehensive Malawi National HIV/AIDS Strategic Framework for 2000 to 2004, to guide HIV/AIDS prevention and mitigation programmes and activities



in the country more strategically. The Strategic Framework sets out the key challenges, goals, objectives and activities for thematic areas identified through a nation-wide HIV mobilisation and consensus building process and therefore reflects those general operational issues, problems and concerns for Malawi (UNDP ).

“The National Strategic Framework for HIV/AIDS”, together with an Agenda for Action, was launched on 29 October 1999 by the Ministry of Health and Population. In Malawi, as in many of the neighbouring countries, HIV/AIDS has been surrounded by a culture of silence. The first phase of the Strategic Framework planning involved community mobilisation and institutional consultations to try to break this culture of silence. The second phase involved analysing accessible information and holding a number of planning workshops. In the third phase the aim was consensus building and finalising the draft. The Strategic Framework was completed and officially launched October 2000 at a ceremony presided over by the President of Malawi. The biggest challenges are faced in the fourth phase, where the public awareness campaigns, mainstreaming of HIV/AIDS in the public and private sector and developing District HIV/AIDS Plans will be the most important outcomes of the process.

Following the fourth phase and the launch of the National HIV/AIDS Strategic Framework, a process was initiated to develop the district-specific plans. The district plans are based on the national framework, but the contents of each plan vary depending on the evaluation of their activities. Six plans were in place by the end of March 2000 and the remaining 20 districts were expected to have plans in place by the last quarter of the same year.

The estimated total cost of implementing the framework over the period 2000-2004 is US\$ 121 million. The Malawi government contribution is US\$ 445 000. It should be noted that the estimated government contribution does not include financial resources consumed by HIV/AIDS patients in healthcare facilities. About 70 % of inpatients in public health care are suffering from HIV/AIDS-related illnesses, which implies that most of the recurrent expenditure in public health care is spend on HIV/AIDS patients. The government contribution is not enough. A round table organised in March 2000 to mobilise funds to implement the framework raised another US\$ 100 million. Source: UNAIDS Malawi

#### *4.2.5 Overview of planning and budgeting processes and integration of AIDS*

In the Interim Poverty Reduction and Growth Strategy Paper (IPRSP) for Malawi in August 2001, HIV/AIDS is not emphasised as a prioritised theme in the introduction of the paper. The HIV/AIDS problem is analysed in part three “Analysis of Poverty Reduction and Growth Options” in a “Super-Sectoral Analysis”. The analysis takes one page out of the 30-page IPRSP. It concludes: “(the Malawi) government is fully committed to implementing the Strategic Plan (for HIV/AIDS). Making progress in this area is fundamental to the national poverty reduction and growth strategy”.

In Malawi's IPRSP the HIV/AIDS pandemic is not mentioned as one of the constraints that hinder the development of the private sector. The mining and tourism industries are mentioned as these industries are seen as having growth potential in Malawi. Challenges for developing the industries are mentioned. A HIV/AIDS policy and commitment are not one of the challenges mentioned. Nor is an extensive HIV/AIDS policy mentioned as a tool in attracting FDI. The only features emphasised as important for foreign investors are macroeconomic stability and good infrastructure.

The World Bank's *Malawi-Public Expenditures-Issues and Options* recommends a shift in expenditure towards the social sectors and HIV/AIDS control and prevention. The World Bank explicitly recommends Malawi to upgrade the resources used in the health and social sectors in general, and to HIV/AIDS specifically.

According to UNAIDS Malawi in June 2000, there was no HIV/AIDS policy in the agriculture and education sectors, and only draft policies in prisons, immigration and the military. Health was the only sector with a HIV/AIDS policy. The Malawi government has made no HIV/AIDS-specific legislation against discrimination on the grounds of HIV as of June 2000.

In Malawi's National Health Plan (NHP) for 1999-2004, the target for HIV prevalence is a reduction of 50 %. This seems an over-ambitious target. NHP shows (according to the World Bank) several over-ambitious targets as well as unrealistic costing and resource estimates, and inconsistent output targets (WB 2001).

For the above reason, the NHP needs to be reprioritised and properly costed before it can become the basis for a sectoral investment programme. Moreover, it is also essential that the quality of programme classification is improved in order to be able to assess whether health expenditures are focused on the priority programmes.

One of the HIPC completion points triggers calls for an increase in the number of nurses, medical assistants and radiography technicians (WB 2001).

#### *4.2.6 Role of donors*

In Malawi Norway has aimed more at support for the public sector in the fight against AIDS, being involved with support for the implementation of the strategy, the plan for HIV/AIDS, and mainstreaming, as well as supporting NGO/CBOs at the grassroots level. NORAD participates in a co-ordination group for HIV/AIDS activities.

## 4.3 Mozambique

### 4.3.1 Overview of population and HIV/AIDS

The population in Mozambique is 18.3 million. The growth rate for the period 1995 – 2000 was 2.3 % p.a. (United Nations Population Division 2002). The percentage of the population in urban areas is 31.7 (World Bank 2001)

The GDP per capita is USD 198 (1999), with an average annual growth rate of 5.88 % p.a. in the period 1994-1999. Growth in total GDP is 7.3 % (World Bank 2001). The HDI is 0.341, which ranks Mozambique as number 168 of the 174 countries included in the index (UNDP 2000). There are significant differences in poverty between the capital Maputo and other parts of the country (Norwegian Embassy in Maputo 2001). The rate of absolute poverty, i.e. living below the poverty line in Mozambique is 69.4 % (Government of Mozambique 2001:14).

The first case of AIDS was diagnosed in Mozambique in 1986. The HIV prevalence increased tenfold from 1988 to 1998 among antenatal clinic attendees (UNAIDS 2000a:153). The national HIV prevalence rate is 13.2 per cent (UNAIDS 2000g). PARPA estimates the HIV prevalence to have increased to 16.4 % in 2001 (Government of Mozambique 2001:112). 1.2 million people are infected with HIV/AIDS and the number of AIDS deaths in 1999 was 98 000 (UNAIDS 2000g).

The transition from civil war to peace in the nineties is probably important in explaining the increased in prevalence rates as it increased the mobility of the population of Mozambique. The HIV prevalence rate increased dramatically after the 1992-1994 period, soon after the peace agreement and the return of refugees and other displaced people (Government of Mozambique 2000).

HIV/AIDS has a profound impact on life expectancy. The *Action Plan for the Reduction of Absolute Poverty 2001-2005* (PARPA) points out that without HIV/AIDS life expectancy would increase to around 46 years in 2005. With the impact of AIDS, estimates indicate that life expectancy, rather than increasing by 4 years, might fall to 35.2 years by 2005 (Government of Mozambique 2001:26). The United Nations Population Division estimates the life expectancy at birth at 41 years in the period 1995-2000 (United Nations Population Division 2002).

By end 1999 the number of current living orphans was estimated at 248 177. The cumulative number of AIDS orphans in Mozambique is 310,000 (UNAIDS and WHO 2000).

### 4.3.2 Socio-economic effects

The macroeconomic effects HIV/AIDS have not been included in the current analysis; however, two studies were expected to be completed by end 2001 (Government of Mozambique 2001:28, see also *Ambassaden i Maputo*

2001:16). PARPA refers to other studies in the countries in the region indicating a medium term fall of 1 % per annum in the GDP growth rate. (Government of Mozambique 2001:28)

#### *4.3.3 HIV/AIDS, institutional focus and key policy statement*

In 1998, the Inter Ministerial AIDS Commission, involving eight Ministries, was set up (Government of Mozambique 2000:12). This was an important step towards placing the HIV/AIDS issue at the centre of the agenda. Personnel have been selected to deal with specific focal points in the fight against AIDS in their particular areas of influence.

In 1988, the National Programme for Combating AIDS (NPC AIDS) was established. The general objectives of the National Programme are to prevent HIV infection and provide health care to PLHA and their families (Government of Mozambique 2000:13).

In February 2000, the Government approved a *National Strategic Plan to Combat STD/HIV/AIDS (2000-2002)* (NSP). Shortly after, in May 2000, a national AIDS Council was established, with the Prime Minister and Minister of Health as the chair and vice-chair respectively (UNAIDS 2000a:155).

The priorities of NSP are:

- The implementation of essential activities to prevent infection, directed towards young people, particularly girls, highly mobile individuals and those who resort to commercial sex
- Implementation of impact reduction activities aimed at people living with HIV/AIDS, and orphans
- Improving the quality and coverage of the following programmes of essential activities: youth to youth education, STI diagnosis and treatment, counselling and voluntary tests of and treatment of opportunistic diseases
- Implementation of activities in the central, northern and southern corridors (Government of Mozambique 2000, see also UNAIDS 2000a)

The NSP outlines two main targets for vulnerable groups, prevention and impact reduction (Government of Mozambique 2000:53-54). The national HIV/AIDS plan points out, however, that none of the Ministries have organised social support activities aimed at PLHA (Government of Mozambique 2000:i)

#### *4.3.4 Overview of planning and budgeting processes and integration of AIDS*

The *Action Plan for the Reduction of Absolute Poverty 2001-2005* (PARPA) is recognised as the PRSP of Mozambique. PARPA considers HIV/AIDS among other health-related issues (Government of Mozambique 2001). Health is as considered one of six priorities promoting human development (Government of Mozambique 2001:3-5). The main HIV/AIDS objective is stated to be to prevent infections, assist people with HIV/AIDS and reduce the impact of AIDS

(Government of Mozambique 2001:54). However, when it comes to the measures to be undertaken, little emphasis seems to be placed on the impact of AIDS on the individual and society. Although the documents acknowledge the importance of clinical treatment and care of people living with AIDS, few measures seem to be planned to help maintain the household as the primary social unit in areas hard hit by HIV/AIDS

The Norwegian Embassy argues that the HIV/AIDS issue is not satisfactorily dealt with in the PARPA and the macroeconomic consequences are not analysed in full (Ambassaden i Maputo 2001:16).

#### *4.3.5 Role of donors*

The PARPA points out that an action plan will be finalised by the end of 2001 to identify measures to integrate the flow from the donors into the budgetary process (Government of Mozambique 2001).

Fighting HIV/AIDS is one of the main challenges for Norwegian development co-operation in Mozambique. Apart from the general policy of including HIV/AIDS in all sectors where NORAD is active, Norwegian aid policy in Mozambique is aimed at supporting the national AIDS strategy. Norway is a lead donor for HIV/AIDS in Mozambique together with UNICEF.

The Norwegian HIV/AIDS support will mainly be based on three elements: (i) support to the National AIDS Council (NAC), with 20 % of funds to central institutions and the remaining 80 % to the districts, (ii) support channelled through UNFPA, and (iii) review of activities to maintain incorporation of the HIV/AIDS aspect in all activities (Norwegian Embassy Maputo 2001:17).

In 2002, Norway will, together with UNICEF, be one of the main donors for the health sector. The support to the health sector is directed to the effort against HIV/AIDS. Norway cooperates with UNFPA on HIV/AIDS activities. The Norwegian financial assistance to the health sector in Mozambique is primarily directed towards HIV/AIDS.

## **4.4 Tanzania**

### *4.4.1 Overview of population and HIV/AIDS*

The population in Tanzania is 35.1 million. The population growth rate in the period 1995–2000 was 2.58 % p.a. (United Nations Population Division 2002). The percentage of the population in urban areas is 38.9 (World Bank 2001).

The GDP per capita is USD 188. Growth in total GDP is 4.7 % (World Bank 2001). The HDI is 0.415, which ranks Tanzania as number 156 of the 174 countries included in the index (UNDP 2000). The ranking has deteriorated the last decade. The poverty level, i.e. the number of people below the national poverty line, is more than 50 % in mainland Tanzania (World Bank 2000).

The first AIDS case in Tanzania was diagnosed in 1983. 1.2 million people are infected with HIV/AIDS. The number of AIDS deaths in 1999 was 140 000, which is 5 % of the AIDS deaths world-wide (UNAIDS 2000g).

The adult HIV prevalence rate in Tanzania is 8.1 per cent. However, in 1997 reports on HIV prevalence among antenatal clinic attendees ranged from 4 to 44 % (UNAIDS 2000a:221, see also UNAIDS and WHO 2000). Furthermore, there are significant regional variations in Tanzania. The areas around Lake Victoria are particularly hard hit by the epidemic.

The United Nations Population Division estimates life expectancy at birth at 51 years in the period 1995-2000 (United Nations Population Division 2002). However, the Poverty Reduction Strategy Paper states that recent estimates put the life expectancy at birth at 48 years (The United Republic of Tanzania 2001b). Life expectancy in Tanzania has, however, not dropped as much as in many other countries in sub-Saharan Africa.

The HIV/AIDS epidemic has caused an enormous number of AIDS orphans. By end the number of current living orphans was estimated at 666 697 (UNAIDS and WHO 2000). The cumulative number of AIDS orphans in Tanzania was a staggering 1.1 million (only surpassed by Uganda, Ethiopia and Nigeria).

Preliminary results estimate the annual loss in GDP growth per capita to be approximately 0.7 % as a result of AIDS in 2010 (UNAIDS 2000a).

#### 4.4.2 *HIV/AIDS, institutional focus and key policy statement*

The major body involved in combating HIV/AIDS in Tanzania has been the National HIV/AIDS Control Programme (NACP). The priorities of NACP are referred in the various plans, including the short-term plan (1985-86) and medium term plans MTP-I (1987-91), MTP-II (1992-1996) and MTP-III (1998-2002).

In October 2001 the parliament passed a bill creating the Tanzania Commission for AIDS (TACAIDS). TACAIDS was established to provide leadership and multisectoral responses (The United Republic of Tanzania 2001a:4). TACAIDS is a quasi-autonomous agency for co-ordinating all interventions related to AIDS (2001c:37). Its task is to ensure that all stakeholders and partners are effectively involved in the national multisectoral response to contain the epidemic. The donors contributed a substantial amount to establish TACAIDS (UNDP Tanzania Country Office 2001).

The *National policy on HIV AIDS* states in a brief section that the aim is to improve the quality of the lives and minimise the stigma of people living with HIV/AIDS (The United Republic of Tanzania 2001a:13).

In the foreword to the *National Policy on HIV/AIDS*, President Mkapa states that the country should target the "85 per cent of the sexually active population that is still free from AIDS" (The United Republic of Tanzania 2001a:ix). The

*National policy* declares the HIV/AIDS epidemic a national crisis. The fight against the disease has been made a top priority on the development agenda, along with poverty alleviation and improvement of the social sector services. (The United Republic of Tanzania 2001a:3). HIV/AIDS is considered a cross-cutting issue of importance in a range of sectors.

Specific objectives: (The United Republic of Tanzania 2001a:9-12)

- Prevention of transmission of HIV/AIDS
- HIV testing
- Care for PLHAs
- Sectoral Roles and Financing, including:
  - to ensure strong and sustained political and Government commitment and leadership and accountability at all levels
  - to establish a framework for co-ordinating fund raising activities, budgeting etc
  - to influence sectoral policies
- Research
- Legislation and legal issues

#### *4.4.3 Overview of planning and budgeting processes and integration of AIDS*

The Tanzania Poverty Reduction Strategy Paper Progress Report 2000/01 considers HIV/AIDS as a cross-cutting issue towards which particular strategies should be directed (The United Republic of Tanzania 2001c:3-4). In the PRSP, containment of HIV/AIDS is held out as one of the primary goals (2001c:2).

The PRSP seems also to have a particular focus on the preventive aspect of the HIV/AIDS epidemic. Few references are made to interventions for people affected by HIV/AIDS. The medium term plan III (1998-2002) has 11 clearly articulated focus areas (UNAIDS 2000a:224) and places emphasis on various aspects of prevention (The United Republic of Tanzania 2001c:37).

The share of budget resources devoted to health increased in 2000/2001 (The United Republic of Tanzania 2001c). Within the budget on primary health, the HIV/AIDS awareness programme figures as one among many other entries (The United Republic of Tanzania 2001c:24).

The budgeted and projected cost of HIV/AIDS priority interventions is as follows in billions of Tanzania shillings:

2001/02	2002/03	2003/04
30.8	27.7	29.8

(The United Republic of Tanzania 2001c).

This appears to indicate a decline in HIV/AIDS spending in real terms. The expenditures on HIV/AIDS will basically fund awareness campaigns, development of strategic plans for combating HIV/AIDS, preventive measures such as the provision of condoms, and carrying out studies and

monitoring/surveillance of the incidence and impact of the pandemic, as well as actions to fight it (The United Republic of Tanzania 2001c:25) These figures are in the range of 0.6–0.9 per cent of discretionary recurrent expenditure.

Expenditures on HIV/AIDS are incorporated in appropriations for individual ministries and departments, making it difficult to measure the actual extent of funds available for HIV/AIDS related diseases.

#### *4.4.4 Role of donors*

In the Consultative Group (CG) meeting in September 2001 on the PRSP all participants concurred in the importance of redoubling the struggle against HIV/AIDS (:55).

Norway has supported the National AIDS Control Programme (NACP) based on an agreement negotiated in 2000. The support is being transferred to the newly reconstituted TACAIDS. Overall responsibility for HIV/AIDS issues will now be moved from the Ministry of Health. Norway also supports NGOs and UN organisations' work against AIDS. As in the other countries, HIV/AIDS concerns will be integrated into other sectors wherein NORAD is active. The budgeted support to HIV/AIDS related work is NOK 10 million.

## **4.5 Uganda**

### *4.5.1 Overview of population and HIV/AIDS*

Uganda's population in 1999 stood at 21.1 million. The growth rate from 1990 to 1998 was 2.8 % p.a. (UN Population Division estimate). Uganda is overwhelmingly a rural society. Only 13 % of the population live in urban areas. Population concentrations are found in fertile and agricultural areas. Over 40 % of the urban population live in the capital Kampala. The life expectancy at birth in 1998 was estimated at 40 years. The infant mortality rate stood at 103 (UNPOP).

Uganda's GDP per capita is estimated at USD 330 (UNPOP, 1997) and the growth rate was 3 % from 1996 to 1997.

At the end of 1999 there were an estimated 820 000 people alive having been HIV infected. 770 000 of these were adults, making the adult rate of HIV/AIDS victims 8.3 %. The majority, 420 000, were women. During the year 2000 some 90 000 people died of AIDS This is expected to decline to 60 000 by 2005. The estimated number of orphans who had lost their mother or both parents and were under 15 in 1999 was 997 426. The US Bureau of Census estimate for 2000 sets life expectancy at 43 without AIDS and 54 with AIDS.

Uganda entered into the HIV/AIDS crisis early. HIV seroprevalence for pregnant women in Kampala was 10 % in the mid 1980s. The rate increased rapidly to between 30–37 % around 1990-1992, then declined steadily to a level of 13-14 % in 1999.



The seroprevalence in pregnant women for other towns of Uganda shows considerable differences. They are however largely lower than those in Kampala and have shown the same clear downward trend since the early 1990s. This is supposed to be due to the activities of Government even though it acted under a severe resource constraint.

#### *4.5.2 Socio-economic effects*

Although no authoritative analysis on the **macroeconomic** effects has been made for Uganda a number of factors are important for the impact of HIV/AIDS on the macroeconomy. Most economic activities take place in the rural areas. Also, agricultural production is labour-intensive and despite rapid population growth, labour is still a relatively scarce factor of production. Early analyses pointed out that while infection rates were lower in the rural areas they would be expected to rise, which has hardly happened. Uganda's economy would probably therefore be better off than other countries where urbanisation is higher and the emphasis on agriculture is smaller. Still, it is expected that AIDS will bring about a 12 % reduction of the labour force at the aggregate level.

The major part of the evidence indicates that although theoretically GDP per capita could increase as a consequence of AIDS, GDP per capita as well as overall production will in fact decline. The possibility that AIDS will affect capital formation is real. Future growth prospects will be affected by the inability to undertake social investments like children's education.

#### *4.5.3 Aids discourse*

The recent AIDS discourse in the media is more open in Uganda than elsewhere. Issues that are highlighted are the various steps taken to prevent the spread of the disease. The oncoming trials with HIV/AIDS vaccine and any new product that comes on the market for preventive or curative purposes are closely monitored. The press frequently spreads information with encouragement to use condoms, and about the tradition of relatives of deceased husbands "taking over" the wife. The President figures prominently as a figurehead in directing preventive steps and in the debate. Gay sex is a debated issue where the press features warnings. The President has been reported as saying that there are no homosexuals in Uganda.

There appear to be few voices with different views on which way to go in the AIDS battle, except perhaps certain religious groups. There are also a few criticisms raised about the use of money in relation to results. One observer pointed out that some 2000 NGOs are supposed to assist in preventing AIDS "but are doing nothing" (Monitor 30.01.02). The New Vision recently reported with some pride that Uganda had won two of the 21 seats on the administration board of the newly formed Global Fund for HIV/AIDS, Tuberculosis and Malaria.

There is an ongoing debate on government sponsoring of HIV-positive students. A physician recently was reported as saying that the government should not “waste valuable resources “ on HIV-positive students. This provoked several counter-statements.

Uganda has only one political organisation, the National Resistance Movement (NRM), which is allowed to operate freely. The president maintains that the NRM is not a political party, but a movement that claims the loyalty of all Ugandans. Although the former political parties may have a latent existence, political debate on the HIV/AIDS issue is rather muted.

#### 4.5.4 HIV/AIDS, institutional focus and key policy statement

The Government of Uganda has acknowledged the presence of HIV/AIDS since the mid 1980s. The epidemic had its origins probably in the early seventies but HIV/AIDS cases were not diagnosed as such before 1984. The political commitment that was behind the success in reducing prevalence has been said to emanate from the President himself.

The main institutional feature for the battle against AIDS is the Uganda AIDS Commission (UAC) which was set up in 1990. The Commission is placed at the Presidency level and has the mandate to liaise with all sectors to ensure that AIDS-related issues are integrated into sectoral plans. UAC has developed a costed strategic framework for its work. Presently UAC is being reorganised since it was clear that it did not function according to plans.

Uganda has had an HIV/AIDS policy since 1992. UAC has been the central body in developing the latest policy statement, the *National Strategic Framework for HIV/AIDS Activities for the period 2000/1 – 2005/6* that was adopted in February 2000. The framework defines the roles and functions of the UAC as a national co-ordinating body, and provides overall guidance for activities geared towards preventing the spread of HIV/AIDS and mitigating its effects. The framework also defines the need for sector-specific Strategic Plans, and serves as the basis for the mobilisation of resources to implement the National AIDS Programmes.

The National Framework has the following goals:

(a) to reduce HIV prevalence by 25 % by the year 2005/6, (b) to mitigate the health and socio-economic effects of HIV/AIDS at the individual, household and community levels and (c) to strengthen the national capacity to respond to the HIV/AIDS epidemic.

UAC has proposed that the “General Guidelines for the Planning and Operations of Conditional Grants” of the Poverty Action Fund should be modified to take better care of AIDS aspects.

#### 4.5.5 Overview of planning and budgeting processes and integration of AIDS

##### 4.5.5.1 Planning and budgeting machinery

The HIV/AIDS response is an integral component of Uganda's overarching national planning document, the Poverty Eradication Action Plan (PEAP). The Uganda AIDS Commission has been placed within the President's office, thereby stressing the multisectoral nature of the pandemic.

There have been a number of initiatives to strengthen the planning process in recent years. This includes major consultative exercises concerning Uganda's long-term goals and objectives, such as *Vision 2025*, describing national aspirations.

The (first) 1997 *Poverty Eradication Action Plan* became a national planning framework to guide detailed medium term sector plans, district plans, and the budget process. In turn, detailed sector-wide plans and investment programmes have reached varying stages of completion, set within an overall medium term expenditure framework. A programme of strengthening district capacity to prepare medium term expenditure frameworks is also underway. The four main goals of the present PEAP are:

- Fast and sustainable economic growth and structural transformation
- Good governance and security
- Increased ability of the poor to raise their incomes
- Increased quality of life of the poor

The approach to planning involves ensuring that the right framework has been established to enable effective programming, implementation and monitoring, which have to interact in an ongoing process.

The main elements of the planning system are:

- Vision 2025 gives an overview of long-term goals and aspirations by the year 2025.
- The PEAP is the national planning framework from which detailed sector strategies are developed.
- Sector planning technical specifications of sector priorities, disciplined by within a budget framework.
- District planning involves implementation plans for sector strategies based on local priorities/needs.
- The Medium Term Expenditure Framework (MTEF) is an annual, rolling three year expenditure plan, setting out the medium term expenditure priorities and budget constraints against which sector plans can be developed and refined.
- District MTEFs set out the medium term expenditure priorities and budget constraints against which district plans can be developed and refined.
- Annual budget and district budgets are part of the mechanisms for annual implementation of the three year planning framework.

- Donors, NGOs and the private sector participate and share information/ideas in developing sector plans and budgets.
- Planning processes are participatory. There is participation of districts in the planning and monitoring process, as well as participatory poverty assessments, providing essential feedback on progress towards poverty eradication goals.

#### **4.5.5.2 How AIDS activities are mainstreamed in the PEAP**

The Poverty Elimination Action Plan (PEAP), which is the national plan of Uganda, says that the key institutional development to implement the National HIV/AIDS Strategic Framework will be to strengthen the Uganda AIDS Commission's ability to serve as the national co-ordinating body.

There are a number of other institutions that the PEAP also sees as essential to ensure that HIV/AIDS interventions are mainstreamed within the sector-wide programmes that are underway. Districts and local communities' capacity to design, implement and evaluate HIV/AIDS interventions through the scaling-up of the District Response Initiative (DRI) would be strengthened. DRI is envisioned as a partnership supported by Government, NGOs, UN agencies, and other key stakeholders.

Uganda has nearly fully integrated the national framework for HIV/AIDS activities into the Poverty Elimination Action Plan (PEAP). Both Uganda's long-standing concern with poverty eradication and the perceived effect of HIV/AIDS on poverty has made it natural for this to happen.

At the **macro** level, we have found no evidence that the Uganda PEAP has done an explicit calculation of the effects of AIDS in terms of broad macro and budgetary issues. A section on the public sector manpower issue indicates that results have not matched intentions in this respect: "AIDS has profound implications for human resources management. In practice, these difficulties are being handled on an ad hoc basis, but it will be helpful to consider the implications more systematically – for instance, the effects of higher adult mortality on training requirements." The effects are of course implicitly included.

On the **financing** side it is clear that Uganda has used HIPC and PRGF opportunities to good effect. In the PEAP there is also mention of the AIDS Commission's suggestion that the Poverty Action Fund could be modified to take care of AIDS aspects.

**Sectoral** AIDS aspects enter into the PEAP. The education and health sectors seem to be well integrated as well as welfare and social protection. On agriculture and rural development there is little mention of HIV/AIDS problems in the plan itself but there are strong statements of its importance and the need for mainstreaming in the Plan for Modernisation of Agriculture.

There is an AIDS policy in place for **military** matters. These issues do not seem to have been brought into the plan for police and other law-and-order functions.

The PEAP does not spell out labour-linked HIV/AIDS issues in the plan document itself, apart from placing the responsibility for identifying data needs for monitoring of the labour markets on the Ministry of Gender, Labour and Social Development.

Analysis of HIV/AIDS as a cause of poverty is present in the analysis in the national plan. However, the effect of poverty in increasing AIDS prevalence is not pointed out but rather implicit in the analysis.

The national HIV/AIDS strategy figures very prominently in the national plan with very clear objectives and measurable outputs. The plan includes poverty monitoring indicators derived from the HIV/AIDS strategy. The plan gives special attention to women and other vulnerable groups like children and youth. The costing has clearly been done but is lumped together with other issues in the main tables of the document.

Analysing the PRSP and HIPC documents, it was found that these documents also integrated HIV/AIDS issues but in a much less satisfactory way than the Poverty Elimination Action Plan. The study had no access to detailed budgetary and accounting information on public spending.

The World Bank has a high level of influence on planning in Uganda through the PRSP process and PRGF World Bank poverty lending and HIPC.

#### *4.5.6 Role of donors*

Donors active in the field are all members of the extended Theme Group for HIV/AIDS and the Technical Co-ordination Committee.

There is also an AIDS Technical Co-ordination Committee in which all donors active in Uganda are members (including USAID, the Italian Cooperation, Ireland AID, the French Embassy, the Danish Embassy, the European Union and the DFID).

There is a “Theme Group on HIV/AIDS” membership of all donors working in the field of HIV/AIDS, which in March 2000 organised a national advocacy and consensus-building workshop with all relevant stakeholders together with the UAC. It says they have moved beyond UNAIDS co-sponsors to include membership of other UN agencies that have also expressed commitment to the International Partnership against AIDS in Africa<sup>13</sup> (IPAA). This has resulted in close collaboration with several line ministries, the AIDS Commission and the UNAIDS country office; this increases collaboration and the probability of mobilising financial and human resources for interventions.

---

<sup>13</sup> IPAA is a coalition of stakeholders which have chosen to work together to scale up significantly efforts in Africa to curtail the spread of HIV, reduce its impact and halt the further reversal of human, social and economic development. The actors of the Partnership are: African governments; African and international civil society; the United Nations; donors, NGO networks, the private and corporate sector, and foundations

Within the Norwegian programme for Uganda, prevention of HIV/AIDS will be established as an integrated part of the aid programme and will be integrated into all projects and programmes.

The World Bank has a high level of influence on planning in Uganda through the PRSP process and PRGF World Bank poverty lending and HIPC.

## 4.6 Zambia

### 4.6.1 *Review of the HIV/AIDS situation*

The population of Zambia was in 2000 estimated at 10.2 millions with a population growth rate of 2.8 % between 1990-2000. Over half of the population is under the age of 20, a group that is or will become particularly vulnerable to AIDS. The share of the population living in urban areas has increased from 11.4 % in 1985 to 23.6 % in 1999, which means a quite large shift in people from a traditional rural lifestyle to an urban lifestyle away from their traditional social network. The major cities are Lusaka and Livingstone.

Zambia's GDP per capita is estimated at USD 338.7 in 1999, declining from 512.3 in 1985.<sup>14</sup> Zambia is the only country in the study that has been experiencing a decline in GDP per capita over the last 15-20 years.

According to UNAIDS/WHO, the estimated number of people living with HIV/AIDS in 1999 was 870 000, of whom 830 000 were adults, which reflects a prevalence rate of 19.95 % among adults. Women were estimated to have a higher number of HIV infection than men, 450 000 vs. 380 000. 40 000 children (0-14 years) were HIV positive or had AIDS. Since the beginning of the epidemic until 1999, 650 000 children had lost their mother or both their parents due to AIDS. Almost 25 000 children are born with HIV each year. USAID estimates that by 2010 35-40 % of the population under 15 will be orphaned, totalling more than 2 million orphans.

The total HIV/AIDS-related deaths in Zambia are estimated at 110 000 in year 2000 and are expected to peak around 2005 with 125 000 deaths (UNAIDS). The Director of UNAIDS (2000), Peter Piot, mentioned at a press conference that Zambia together with Uganda, Brazil and Thailand was on the right track to preventing HIV (Dagbladet 21.03.2000).

HIV prevalence among pregnant women tested in clinics in the urban areas of Lusaka and Ndola increased from 5 % in 1985 to 27 % in 1992. The prevalence remained stable at that rate through 1998. Although the rate has remained the same, the HIV prevalence among pregnant women younger than 20 has declined from 27 % in 1993 to 17 % in 1998. Among pregnant women outside the major urban areas the HIV prevalence remained stable at 14 % between 1994 and 1998. The HIV prevalence ranged from 5 % to 31 % among women tested in 18 different sites in 1998.

---

<sup>14</sup> Both amounts estimated in USD 1995

In 1991, 60 % of male and 69 % of female STI patients tested in Lusaka were HIV positive. Outside of Lusaka, 41 % of female STI patients were HIV positive. The numbers show clear differences in the seroprevalence between the sexes and between areas of different population density. The numbers are higher for women and in urban areas.

#### *4.6.2 Aids discourse*

The University of Zambia medical library collected 500 newspaper articles and press releases regarding HIV/AIDS in Zambia from 1997 until March 2002. There has been a steady flow of articles and press releases about HIV/AIDS for the last five years. Both the Times of Zambia and the opposition paper *Zambian Post* seem as if they are concerned about a variety of themes regarding the epidemic.

There is an ongoing effort to reach out to young people using the mass media in a more “trendy” way. Young people themselves write and publish “Trendsetters”, a new award-winning, monthly eight-page newspaper, providing young people with sexual health information in their own style. The newspaper also appears on the internet: [www.trendsetters.org.zm](http://www.trendsetters.org.zm) and there are plans for providing the successful paper to a larger share of the population.

President Frederick Chiluba is cited in the press as calling on Zambians to change their lifestyles if the scourge of HIV/AIDS is to be curbed. He further said: “Productive manpower is dying because of the disease. Zambia is characterised by a large population of youths who are sexually active”, and that “the picture on the ground is gloomy and the war against the scourge cannot be won by Zambia alone” (*The Post*, 31 March 1999). Observers have however noted that there appears to have been little done to follow up these strong statements with action.

Zambia’s first president, Dr Kenneth Kaunda, is often quoted in the press. After taking a HIV test at a voluntary counselling and testing centre in Lusaka, he announced his negative status and challenged all Zambians to take the medical examination (*The Post*, March 2002).

The Mwanawasa government appears to have taken a number of actions and showed resolution in forcing integration of HIV/ AIDS issues in all ministries and encouraged greater openness in general.

A conference for children, with presidential participation has been arranged and led to a strong media focus on children.

#### *4.6.3 HIV/AIDS, institutional focus and key policy statement*

The Government of the Republic of Zambia has responded with a series of planned interventions, beginning in 1986 with the establishment of the National AIDS Control Programme. In 1987 there was an emergency programme to

protect the blood supply. The first Medium Term Programme (MTP), 1988-1992, had a medical focus, whereas the second MTP, 1994-1998, emphasised a multisectoral approach.

In March 2000, Zambia formed the cabinet-level HIV/AIDS/STD/TB Council and Secretariat. The new council is to provide national leadership, co-ordination, policy guidance, and resource mobilisation on HIV/AIDS (*Times of Zambia*, 3/16/00). The joint council with Tuberculosis seems reasonable considering that TB is the main opportunistic disease and death cause associated with AIDS. On the other hand, the infections are quite different. A common strategy to fight both diseases might not be the most effective way for either.

At the International Conference on AIDS held in Lusaka in September 1999, the term emergency was used to describe the situation. A national strategic plan on HIV/AIDS was completed in 2000. The plan aims at preventing further HIV transmission and mitigating socio-economic impact. The strategic framework gives priority to certain geographical areas and population groups. (Source: UNAIDS Zambia)

- Geographical: Lusaka, Copperbelt Province, districts along the main trucking routes, districts with well defined fishing areas in Luapula Province and Southern Province, districts with seasonal workers in rural areas, districts with refugee populations and towns with frequent cross-border traders.
- Sub-population: people living with HIV/AIDS, orphans in and out of school, commercial sex workers, public sector workers, private sector workers, and men.
- Interventions: promoting of multisectoral response, promoting of behavioural change, STI control, destigmatisation of HIV/AIDS, voluntary counselling and testing, reducing mother to child transmission, home-based care and support for people living with HIV/AIDS, community-based support for orphans and vulnerable children, and improved hospital care.

The only sector reported to have a HIV/AIDS policy in 2000 was education. A recent debate on the role of religion in the fight against HIV/AIDS noted how judgmental attitudes have led many with AIDS leaving the church. Church ministers stated that they are now beginning to become involved in the fight against HIV/AIDS. There is no specific legislation against discrimination on the grounds of HIV/AIDS.

#### 4.6.4 *Role of donors*

In Zambia, Norway has been active in preparing for a national forum for co-ordinating the fight against AIDS and will integrate HIV/AIDS aspects in all sectors where Norway is active. NORAD in Zambia also works with NGOs and various networks focusing particularly women. Norwegian support also focuses on the development of better methods and strengthening of public sector activities, for example the national AIDS council.



## 4.7 Integration of HIV/AIDS issues in national plans, some main points

### 4.7.1 HIV/AIDS strategies

All the five countries have spelled out an HIV/AIDS policy or strategy. In some countries there were predecessors to the present strategies. Four of the countries launched strategic plans around the turn of the millennium (Malawi 1999, Mozambique 2000, Tanzania 2001, Zambia 2000). Uganda has had an active HIV/AIDS policy since 1992.

All of the plans/strategies look at prevention, cure and care and support for people living with AIDS. There are, however, quite marked differences in how they target groups, set measurable targets, handle popular mobilisation, and appear to think about mainstreaming, for example in relation to PRSP.

The **Zambia** and **Mozambique** strategies appear to have quite clear foci on geographical and demographic and population groups. The **Ugandan** strategy is exceptional in clarity and goal formulation and perhaps in the prominence HIV/AIDS has taken in the national planning framework. The Uganda strategy also aims very clearly at building up a national capacity to respond to the epidemic. In **Malawi**, considerable emphasis was put on the process of preparing the strategy but its implementation did not appear to be well linked with the national planning framework. The **Tanzanian** policy is also very clear with regard to mainstreaming, but it is not clear whether this has been achieved to the same extent as for Uganda.

### 4.7.2 Institutional frameworks

The countries have also handled the *institutional frameworks* differently. In **Malawi** it appears that the Ministry of Health and Population has been the key institutional base for the development of the national strategic framework. This might partly explain the relative lack of successful integration of HIV/AIDS into national planning.

In **Mozambique**, the institutional base is a Ministerial AIDS commission involving eight ministries. It still appears as if integration into the national plan had certain shortcomings.

**Tanzania** has gone to the extent of setting up a statutory commission (TACAIDS). This was done recently and the advantages of the move are not yet quite clear. The long existence (from 1992) and the location in the President's office is likely to have helped make the commission broad in its scope.

In **Uganda** the AIDS commission (UAC) has been successful, both in setting up an HIV/AIDS strategy and in integrating it into national planning. At the present stage the commission is, however, being reorganised to function better.

**Zambia** formed a very strong HIV/AIDS/STD/TB Council and secretariat at a high (Cabinet) level. This was done in 2000, 8 years after the Ugandan UAC was formed. The Council has been reported to have largely a health focus and unclear terms of reference, has worked under difficult circumstances and been generally criticised.

#### *4.7.3 Integration of HIV/AIDS into national planning*

The strategies also differ a great deal with respect to their integration into the national planning framework. **Uganda** has nearly fully integrated the national framework for HIV/AIDS activities into the Poverty Elimination Action Plan (PEAP). Both Uganda's long-standing concern with poverty eradication and the perceived effect of HIV/AIDS on poverty has made it natural for this to happen.

**Malawi's** I-PRSP was analysed for its handling of the HIV/AIDS issue. The pandemic is given one of the 30 pages of the I-PRSP. The treatment was found to be less than satisfactory. Although its economic impact on mining and tourism was mentioned, the strategy as such cannot be said to have been properly integrated into the document. There is, for instance, no mention that the pandemic is a hindrance to development of the private sector. It does appear as if Malawi has delayed in making adjustments to its response to the pandemic. The World Bank in a fairly recent study points out the necessity of moving resources to HIV/AIDS. The UNAIDS points out that by June 2000 there was still no HIV policy for the agriculture and education sector (Health, prison, immigration, and the military were covered).

**Mozambique's** Action Plan for the Reduction of Absolute Poverty 2001–2005. (PARPA) is recognised as the PRSP of Mozambique. HIV/AIDS is dealt with largely as a health issue, focusing on the prevention and treatment of STDs generally. The macroeconomic consequences of HIV/AIDS are not dealt with in full.

**Tanzania's** progress report 2000/01 on the PRSP places HIV/AIDS near the top of the agenda. The containment of HIV/AIDS is said to be one of the primary goals. Also in Tanzania the focus appears to be on preventive elements; few references are made to socio-economic interventions for people affected by HIV/AIDS. The budgeted costs of HIV/AIDS priority interventions do not seem to signal a strong upgrading. However, expenditures on the disease are incorporated in the budgets of individual ministries and departments, making it difficult to measure the actual extent of funds available.

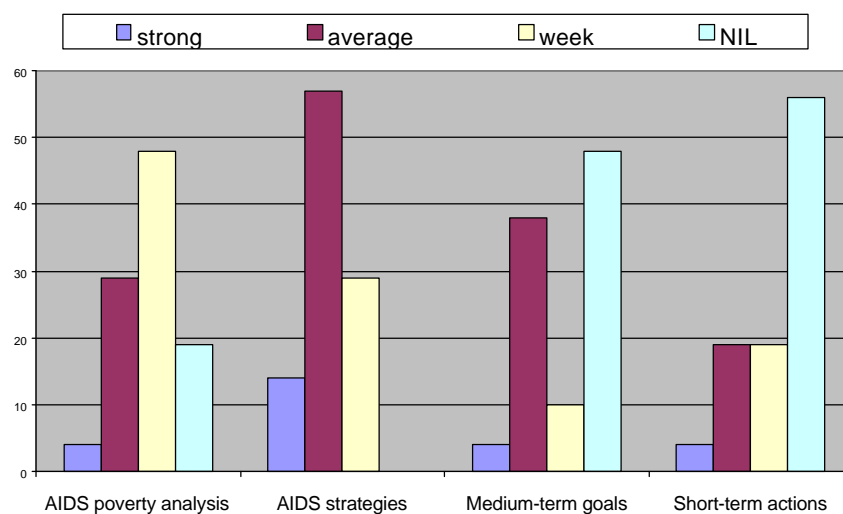
**Zambia** appears to have the least degree of integration of HIV/AIDS into the PRSP. The disease is mentioned only once in the introduction to the July 2000 revision of the I-PRSP. The September 2001 revision however has a separate section on HIV/AIDS but there is little or no mentioning or integration of the issues elsewhere. Information from 2000 indicated that there was no budget to implement the strategic plan, for which an aid donors meeting would be held.

The findings on the inclusion of HIV/AIDS issues in PRSPs in the focus countries are largely parallel to the findings of a recent review by the UNAIDS secretariat of the first generation of 25 full and interim PRSPs prepared by sub-Saharan African countries.

The review was based on four criteria for dealing with HIV/AIDS in the PRSP. Firstly, to what extent is there analysis of the relationship between AIDS and poverty? Secondly, to what extent are the main strategies from the country's national AIDS plan included in the PRSP? Thirdly, to what extent does the PRSP include medium-term AIDS prevention and care goals and indicators for monitoring poverty? Finally, does the PRSP incorporate monitorable short-term actions to fight HIV/AIDS? The results of the review are presented in figure 5 below.

It appears that all countries now make some mention of their HIV/AIDS strategies in their PRSPs. Only just over 10 percent have made this a strong point in the document. There are still some five or six PRSPs that do not contain any analysis of AIDS and poverty, but most of the countries have included it in one way or another, only one or two of them in a fully satisfactory (strong) way.

**Figure 5: How effectively are PRSPs tackling AIDS**



The integration of HIV/AIDS policies in the PRSPs is most deficient in stating medium-term goals and short-term actions. More than half of the countries have no statement on short-term actions, only a little fewer than half have integrated medium-term goals. Again only two or three countries have strongly included medium-term goals and short-term actions.

#### 4.7.4 Plans, budgets, accounts and outcomes

Plans and PRSPs express policies and political will. It is, however, clear that statements in plans do not necessarily have a real and immediate effect on budgets. Budgets in poor countries usually have very little discretion, since much of the budget largely covers civil servant pay and the necessary recurrent costs of

running the government machinery. Often changes in plans will take years to filter through to the budgetary level, if at all.

To improve the policy relevance of the budget several countries in Africa (all of our focus countries except Zambia) have taken up the World Bank/IMF recommendation to use a Medium Term Expenditure Framework (MTEF) approach. This approach prescribes a multi (usually three) year rolling budget which is supposed to link the budget better to the policy level. A recent review of the effect of this experiment indicates that there may be some evidence that MTEFs have a positive effect on the ability to reallocate public funds to priority sectors. There is, however, no evidence that they generate efficiency gains in public spending and thus produce a more efficient use of public monies.

At a yet deeper level there is the question of whether accounts conform to budget, i.e. whether the funds filter through to the right institutions. Unfortunately the indications for this seem very bleak, although there is little in the way of information or studies in the area. Reinikka and Svensson recently studied leakage of public funds in education in Uganda and found out that on average only 13 % of intended allocations of non-wage expenditure to primary schools ever reached the school. (Explaining leakage of Public Funds, R. Reinikka, J. Svensson, October 2001). However, subsequent action by the Uganda Government apparently raised the percentage received to 80-90.

Finally, the real issue is whether the use of public funds has the intended impact. Also here, precious little work has been done. If Norwegian HIV/AIDS assistance increasingly takes the form of budget support or SWAPs, this will become a key issue. To make sure that aid money works, the focus will be on delivery by the recipient government machinery and much less on orthodox project evaluation.

#### *4.7.5 Aids discourse*

A search on the allAfrica.com database on AIDS revealed a result that seems to describe well the situation of the AIDS discourse in the focus countries.<sup>15</sup> Since November 2001 the database has collected 16 articles on Uganda, 10 on Zambia, 2 on Malawi, 1 on Tanzania and none on Mozambique. The number of articles (except for Portuguese-speaking Mozambique) reflect our findings regarding the degree of openness around HIV/AIDS in the different countries, both in the press and in society at large.

Uganda is the country in the region most open about the different effects of AIDS, both on an individual and community basis and on how HIV is transmitted. Much of Uganda's success in turning the epidemic is frequently linked to the openness about the disease from politicians and the media. This openness "hypothesis" cannot be rejected in our study. Uganda has had the most

---

<sup>15</sup> allAfrica.com is the largest electronic distributor of African news and information worldwide.

open public debate around HIV/AIDS since the number of AIDS victims started to grow rapidly in the late 1980s. The reason why the discourse is more visible and seems more open could come from the fact that Uganda was the first country that felt the devastating consequences of AIDS. Uganda was the first country in the region to recognise HIV to be a large-scale problem.

Stigma, denial, shame and discrimination against the HIV positive have worsened the quality of life for the infected as well as their families. Articles on what HIV/AIDS is and how it is transmitted could be a way to undermine many of the beliefs attached to HIV/AIDS, for many only known as The Disease.

#### *4.7.6 Donor activities*

In general for the five countries, donors have funded a considerable part of the fight against HIV/AIDS and provided nearly all possible kinds of technical assistance. NORAD's support to AIDS activities is different by country, a general policy direction being that HIV/AIDS is taken into account in all the sectors where NORAD has been active.

In **Uganda**, prevention of HIV/AIDS will be established as an integrated part of the aid programme and be integrated into all projects and programmes.

In **Malawi** Norway has aimed more at support for the public sector in the fight against AIDS, being involved with support for the implementation of the strategic planning for HIV/AIDS, and mainstreaming as well as supporting NGO/CBOs at the grassroots level. NORAD participates in a co-ordination group for HIV /AIDS activities.

In **Zambia**, Norway has been active in preparing for a national forum for co-ordinating the fight against AIDS and will integrate HIV/AIDS aspects into all sectors where Norway is active. NORAD in Zambia also works with NGOs and various networks focusing particularly women. Norwegian support also focuses on the development of better methods and strengthening of public sector activities, for example the national AIDS council.

Fighting HIV/AIDS is one of the main challenges for Norwegian development co-operation in **Mozambique**. Apart from the general policy of including HIV/AIDS in all sectors where NORAD is active, Norwegian aid policy in Mozambique is aimed at supporting the national AIDS strategy. Norway is a lead donor for HIV/AIDS in Mozambique together with UNICEF.

In **Tanzania**, Norway supports the national AIDS control programme, newly reconstituted as TACAIDS and moving overall responsibility from the Ministry of Health. Norway also supports NGOs and UN organisations' work against AIDS. As in the other countries, HIV/AIDS concerns will be integrated into other sectors wherein NORAD is active.

## 5. Conclusions and recommendations

### 5.1 Mapping demographic and social impacts

*[See section 3.2 and country sections on population and socio-economic effects under section 5]*

There are considerable differences in adult HIV prevalence rates between our five focus countries. Zambia with the highest adult HIV prevalence (20.1 %) has 2.5 times the prevalence of Tanzania, which is at the low end with 8.1 %. Uganda is at the same level (8.3 %) whereas Malawi and Mozambique have adult prevalence rates of respectively 16.0 % and 13.2 %. All countries have experienced falling life expectancies because of HIV/AIDS. Tanzania has the highest life expectancy at about 51 whereas the others are clustered around the lower 40s, Uganda being the only country where the last 5 years have seen a slight *increase* in life expectancy. None of the countries are likely to experience a decline in their population, which could be the case for Botswana, Zimbabwe and South Africa. Their population growth rates will, however, certainly go down.

Because of the way AIDS spreads, the sexually active age groups will be particularly hard hit and this will lead to changes in the population structure for a long time to come. This is clearly illustrated by the forecast for 2020 of Botswana's population pyramid with and without AIDS. The 2020 pyramid reveals a decimated population in the ages of 40 and above, with a surplus of females. In the ages below 40 there appears to be a surplus of males and the population from 20 to 40, which is normally the major part of the working population, is very strongly reduced. The population under 20 is also dramatically reduced in comparison with what it would have been without AIDS. How such abnormal population structures may affect the economy and society in the future can only be imagined. The study did not find any significant attempt at projections for the long-term consequences of AIDS in developing countries.

**Recommendation 1:** *Norway, which has taken the AIDS challenge very seriously and in some countries have become the lead donor in this area, should offer its support to countries which attempt to explore the future demographic and societal effects of AIDS.*

### 5.2 Socio-economic destruction, coping strategies and long-term planning

*[See sections 3.3 to 3.7 and 4.1 to 4.3]*

The present decade will be worse than the last in terms of AIDS mortality and morbidity in Africa. It is likely that the epidemic will spread into parts of Africa with currently low prevalence rates. For other countries the epidemic will develop from an HIV/AIDS epidemic to a full-blown AIDS epidemic, with dramatic increases in the annual number of AIDS deaths. The only country that will be likely to experience a drop in the number of AIDS deaths is Uganda.

All our focus countries are among the poorest in the world. Since the population is already vulnerable, the epidemic will have a particularly strong affect on these countries.

The poorer households are likely to be relatively strongly affected by HIV/AIDS since they are likely to have high dependency ratios and since the AIDS victims are likely to be exactly the income-earning members of the household. Furthermore, poor families will have fewer resources to enable them to cope with the problem. The families are likely to be caught in a trap with reducing income because of deaths or sickness of working family members at the same time as care, medical bills and funeral costs increase. The household coping strategy often involves selling productive assets and utilising child labour, thus interfering with the children's education. In addition to making people more vulnerable, poverty also make people more susceptible. Poverty can force people, often men, to take work as migrant workers outside of their homes and communities, and it can force women to earn money on commercial sex.

Women are in many ways suffering most from AIDS. In Africa it is clear that women have the highest infection rates. They are biologically more prone to be infected than men and they are also the ones who traditionally will have to care for other sick people. When losing their male spouses they are more likely to get into commercial sex.

AIDS is also destroying future generations through its effect on children, who are both being forced to take work and skip school and being orphaned. Traditional systems for taking care of orphaned children are breaking down under the burden of AIDS and institutional systems have not been built up.

The epidemic also has a strong effect at the community level. Agricultural production and food supply drop, families and communities break apart and young people's future becomes insecure. Communities get into a stressful situation, resulting in abnormal behaviour e.g. with patients being abandoned from hospitals and banished from their households. The rationale behind such responses is often stigmatisation and fear of contamination.

Best practices in reducing the impact on individuals, household and communities will naturally be focused on the household, which is the most important institution for providing care for children, sick people and the elderly in rural Africa.

UNAIDS's proposal for the structuring of support to households involves

- improvements in agricultural production
- income generation and diversification of sources of income
- reducing demands on women's labour
- improving the welfare of children in need

It is particularly underlined that it is important to enhance women's access to resources and education and to secure the legal position of women. Also, the most successful attempts at mitigating the burden on people facing the impact of HIV/AIDS are focused on local initiatives and organisations.

UN/AIDS and UNICEF argue that human, financial and organisational resources are needed on a massive scale if affected countries are to calm the escalating crisis.

Efforts to establish support systems for people and communities must pay adequate attention to social and cultural responses to the HIV/AIDS issue. Pre-existing cultural patterns are highly relevant to the response to AIDS control messages. Cultural practices not compatible with the impact of HIV/AIDS are prone to change in communities hard hit. Funeral practices with long periods of mourning and lavish gatherings of relatives and others may, for example, be difficult to uphold by households in a difficult situation.

Analysis of the economic effects of AIDS both at macro and micro levels is important, not least for the international community which will have to support African in getting through the crisis. There is, however, little data and little work has been done in this area so far.

At the macro level, the situation is not quite clear. Early studies tended to indicate that HIV/AIDS has had only a small negative impact on the key macroeconomic indicators. Later studies of African countries, looking at key determinants of long-term growth, show a considerable reduction in the growth rate of GDP per capita as a result of the AIDS epidemic. A study of the South African economy, looking at perspectives for 2010, suggests a GDP level for the year in an AIDS scenario which was 17 % lower than in the no-AIDS scenario. Per capita GDP would drop by around 8 %. Main causes for the deterioration in growth were a slower growth in total factor productivity and a shift in government spending towards health.

The study also considered the effect on enterprises. The most notable effect was the decline in labour supply. Estimates by the ILO indicate that for our focus countries the labour force in 2005 would be some 10 percent lower than it would be without AIDS. Looking at 2020, the situation will have worsened, one country having a loss of a quarter of its labour force compared to the situation without HIV/AIDS.

The effect on capital appears less certain. It is clear, however, that domestic savings will decline because resources are spent on healthcare and benefits for infected employees and families. Foreign direct investment is likely to decline because of the economic uncertainties created by the epidemic.

It is also certain that absenteeism due to AIDS leads to a loss in productivity. From the viewpoint of the individual enterprise this will affect their productivity directly but also indirectly through delays in supplies of inputs like materials and utilities (electricity, water and other public services). The pressure on remaining workers will tend to cause stress and reduce efficiency.

With a declining economy the demand for domestic goods will be hit. The effect on local markets will differ since demand for different goods and services is



differently affected by the disease. It is probably only branches like health services and funeral bureaux that will be positively affected. It is likely that many of these effects are greater for small businesses that are dependent on a few key persons and therefore will be particularly vulnerable.

Firms respond to the crisis usually by trying to become more capital intensive and to multi-skill workers, using pre-employment testing for education and arranging counselling for the workforce. Some companies provide medicines for key personnel. It appears generally that business is not taking the threat of AIDS very seriously in terms of contingency planning or attempts to create awareness about the HIV and AIDS.

**Recommendation 2:** *With the likely scenarios of a worsening epidemic, NORAD, with those co-operating countries that may welcome such support should look into the possibility of making available more resources for long term and contingency planning and/or awareness-creation within the enterprise sector.*

### 5.3 Economic impacts on agriculture

*[See sections 3.3.2 to 3.3.3 and section 4.4.2]*

The study also examined the available evidence for the more important private and public sectors. The biggest challenge in **agriculture** appears to be the overall decline in food production where even if one takes AIDS out of the equation Africa will have difficulties in maintaining basic food production over the next two decades. Evidence from Zimbabwe on the reduction in agricultural production for households which had lost a household member to AIDS indicated that crops could be reduced by some 40 to 60 percent because of the loss.

**Recommendation 3:** *Norway should consider supporting FAO's major exercise in rethinking the epidemic. This will have implications for agricultural policy and for appropriate modification of FAO's work.*

### 5.4 Economic impacts on other sectors

*[See section 4.4]*

The **manufacturing** sector which long has been looked to for modernisation of the economy by all developing countries is likely to be hard hit because it is usually urban based and the most successful firms are using labour-intensive technology. The sector is highly competitive and cost sensitive. There is evidence that investors in the textile sector, which has particular potential in Africa, may shy away because of high HIV rates.

**Transport, mining and construction** employ large numbers of fairly low-skilled workers. It may therefore not be very difficult to replace diseased workers although training costs could be considerable. It will, however, be particularly important to focus on these industries with awareness raising and prevention because of their potential for spreading the virus.

Another of the hopes for many of the focus countries has been the **tourism** industry. Both its labour-intensity and the possibility of the industry getting stigmatised by the effects of sex tourism and the worry about the safety of

hospitals, blood supplies, dentist etc. will have a negative effect on the growth of the industry.

The **financial** sector is skill intensive and the death of only one employee could result in huge economic losses. Firms in South Africa are now hiring two or three trainees for each new managerial job in anticipation of attrition from HIV/AIDS.

The health and education sectors are predominantly managed by the state. They are both particularly important battle grounds in the war on AIDS.

In all the focus countries **health** services were far from perfect before the onset of HIV/AIDS. Presently, they are under very severe pressure. The reason for this is mostly the overwhelming number of patients but also attrition of health service staff due to infection. It is clear that some of the solution for this crisis will be home-based care which, however, has its own problems.

There is some indication, for instance from Zambia that the infection and mortality rates of teachers and other personnel in the **education** sector are higher than in the general population. Recent research has, however, shown little difference in prevalence between teachers and the rest of the population. It is possible that, in line with what tends to happen to the higher educated, the prevalence of teachers as a group is changing for the better relatively to lower educated population groups. The impact of HIV/AIDS on the education sector will be profound and the most severe impact lies in the future. The impact of HIV/AIDS on the education sector will be profound and the most severe impact lies in the future.

The high HIV/AIDS prevalence within the **armies** of Africa is a matter of concern as it holds the probability for instability within the military. HIV/AIDS may nourish tendencies for instability and insecurity both nationally and regionally if allowed to proceed unchecked.

**Local government** officers may perhaps not be susceptible to AIDS to a greater degree than other government officials but there is a particular reason for developing local level activities to combat AIDS. The effect of AIDS on the efficiency and capacity of local governments is therefore very serious.

**Recommendation 4:** *NORAD should offer the main co-operation countries in Africa support for studies of particularly vulnerable or susceptible sectors within both the enterprise and public sectors. Such studies would aim at producing policies and measures against the particular sectoral problems of prevention and cure as well as abatement of social and economic effects.*

## 5.5 Comprehensive anti-AIDS planning and donor support

*[See country sections on anti-AIDS policy, planning, budgeting and donors under section 5 and sections 5.7.3 to 5.7.4]*

It has been argued that HIV/AIDS is a disease like any other disease and should therefore be fought in line with all other diseases. This study points out a

number of reasons why the fight against HIV/AIDS in Africa must come at the top of the national and indeed international agenda.

First of all, AIDS is now the biggest killer in Africa. According to the WHO estimates for 2000, AIDS causes 22.6 % of the deaths in the African region. (*The global burden of disease 2000 project: aims, methods and data sources, WHO November 2001 (revised)*) It is a more important killer disease than lower respiratory infections and malaria, which are number two and three on the list.

Secondly, whereas no effective cure or vaccine has been found, prevention methods are both known and relatively simple. Thirdly, and very importantly, the disease hits the most productive segment of the population, thus ruining human resources which are the most important basis for what Africa needs most of all, economic development. Fourthly, there is considerable evidence that the disease hits poorer populations harder than better off populations and thus multiplies Africa's poverty problem.

In most African countries preventive and curative efforts focused on HIV/AIDS have come about relatively recently and have perhaps therefore still not been given a share of available resources which is commensurate with their importance. The pressure for continuing the improvement of preventive and curative activities must therefore be strengthened.

However, perhaps the greatest future challenge for African developing countries and their donors alike is to prepare for the change of the epidemic from one of HIV/AIDS to full-blown AIDS. The present decade will certainly be the worst decade ever with regard to AIDS morbidity and AIDS mortality. This may be said quite confidently because the majority of those who will die are infected already and the chance that cures will have a dramatic effect is small indeed. The only case in Africa where it is likely that AIDS mortality will start to decline soon is Uganda.

This means that in addition to the preventive and curative effort, much more emphasis will have to be put on the social and economic effects, which will appear even more overwhelming than they are today. Two main consequences of this are that the total amount of resources needed for the fight against HIV/AIDS will increase and will have to be mainstreamed in public sector planning and budgeting.

Given present donor policy trends away from narrow project support and towards budget support, it becomes extremely important that the systems for public sector planning and budgeting in recipient countries actually manage to channel funds and human resources to be used effectively and efficiently to fight HIV/AIDS and its consequences. Based on ideas from UNAIDS and the World Bank, the study has formulated and tried to apply criteria for appropriate HIV/AIDS planning and budgeting in Norway's main co-operation countries in Africa (see section 5.1).

**Recommendation 5:** *It is recommended that such criteria be used as a guideline for NORAD to pinpoint weaknesses in systems that channel public resources to*

*the fight against HIV/AIDS, and to offer support for improvement to its development co-operation partners.*

## 5.6 Improving resource flow monitoring

*[See country sections on budgeting under section 5 and section 5.7.4]*

In a desk study such as this, it is not to be expected that data are available to trace the flow of resources from policy decisions at the central level to the actual outcome and impact of these resources “on the ground”. The existence and appropriateness of a *national AIDS policy or plan* was easy enough to determine. Its integration into *national plans* could also be roughly gauged, one difficulty being that the PRSP is now the real basis for public sector policy in all the five countries and often partly eclipses their national plans. In addition, the HIPC decision point and completion point documents also contain important public policy statements.

How policy and planning are reflected in *budgetary allocations* is much less easy to uncover. Detailed information on medium-term expenditure frameworks (MTEFs) is generally not available in any desk-study situation. The access to information on *actual expenditure* compared with budget allocations has improved in many of Norway’s co-operating countries but is generally not available at a highly disaggregated level from freely accessible sources. Studies on *outcomes* and *impacts*, which will be the real proof that resource allocations at the higher levels really filtered down, are very hard to come by. Far too little work has been done in tracing flows of public resources to the final recipients. The World Bank has supported a few such studies, including the one by Reinikka and Svensson referred to above.

**Recommendation 6:** *It is recommended that NORAD offers support for tracer studies as well as impact studies to analyse the effects of channelling resources for HIV/AIDS activities through public sector budgets.*

## 5.7 Diversity in anti-Aids strategy

*[See country sections on institutions and planning under section 5 and sections 5.7.2 to 5.7.3]*

There are a few examples showing that studies have been used in other sectors with considerable effect. Studies on specific HIV/AIDS activities would also be useful for exploring the quality of financial governance in these countries generally.

All the five countries have spelled out an HIV/AIDS policy or strategy. In some countries there were predecessors to the present strategies. Four of the countries launched strategic plans around the turn of the millennium (Malawi 1999, Mozambique 2000, Tanzania 2001, Zambia 2000). Uganda has had an active HIV/AIDS policy since 1992.

All of the plans/strategies look at prevention, cure and care and support for people living with AIDS. There are, however, quite marked differences in how they target groups, set measurable targets, handle popular mobilisation, and appear to think about mainstreaming, for example in relation to PRSP.

**Recommendation 7:** *The differences in approach may be a basis for a cross-fertilisation of ideas, which should be supported by NORAD.*

## 5.8 Integration into country planning frameworks

*[See country sections on planning under section 5 and sections 5.7.3 to 5.7.4]*

The strategies also differ a great deal with respect to their integration into the national planning framework. **Uganda** at one extreme has nearly fully integrated the national framework for HIV/AIDS activities into the Poverty Elimination Action Plan (PEAP). Both Uganda's long-standing concern with poverty eradication and the perceived effect of HIV/AIDS on poverty has made it natural for this to happen. Zambia, at the other extreme, appears to have the least degree of integration of HIV/AIDS into the PRSP. The disease is mentioned only once in the introduction to the July 2000 revision of the I-PRSP. In the rest of the paper, the problem is not mentioned at all, not even as a problem to address under target group intervention. Information from 2000 indicated that there was no budget to implement the strategic plan. Aid donors meetings would be held.

The countries have also handled the *institutional frameworks* differently. All countries except Malawi have transferred overall responsibility from the Health Ministry. Mozambique has a ministerial AIDS Commission, in Uganda a somewhat similar commission is under the office of the president. Zambia has formed a cabinet level Commission and Tanzania has gone to the extent of setting up a statutory commission. (TACAIDS). Uganda was a pioneer and set up its Commission in 1992, whereas the other countries have formed their institutions only recently.

It is clear that although all countries have put together strategies, the lack of capacity in government planning and budgeting as well as in the institutional base for management of the fight against HIV/AIDS has made for a slow start of activities and, most likely, inefficient use of funds. As the new trends in aid management take effect and calls for more emphasis on budgetary support combined with proper financial governance and management, it will make sense for donors to consider support to efficient management of public sector AIDS activities, right from the policy level to the grassroots. In the real world, the fight against AIDS competes for resources with many other public sector goals. As a relatively new segment of public expenditure HIV/AIDS will tend to lose out in the battle for resources if it is not given a strong emphasis both at the policy level and the implementation level.

**Recommendation 8:** *Because of the particular circumstances around HIV/AIDS as a new phenomenon in the budget context and because of the particular need to move quickly from the planning stage into practice, it is recommended that NORAD places particular emphasis on offering its co-operating partners capacity building for the institutions and individuals that are involved in the fight against HIV/AIDS.*

## 5.9 Norwegian assistance strategy

*[See country sections on donors under section 5 and sections 5.7.5 to 5.7.6]*

In general for the five countries, donors have funded a considerable part of the fight against HIV/AIDS and provided nearly all possible kinds of technical assistance. NORAD's support to AIDS activities are different by country, a general policy direction being that HIV/AIDS would be taken into account in all the sectors where NORAD was active.

In general, it appears that Norwegian activities in the area of HIV/AIDS initially concentrated on preventive and medical issues. In most countries the profile of support is now starting to move towards broader areas, particularly co-operation with the national AIDS commissions.

**Recommendation 9:** *In view of the necessity for greater concern for the social and economic effects of HIV/AIDS expected in the future, this movement towards general and institutional support is necessary and should be accelerated.*

### 5.10 Making donor assistance effective

*[See country sections on AIDS discourse donors under section 5 and sections 5.7.5 to 5.7.6]*

More general support for public sector anti-AIDS activities strengthens the case for greater concern with financial management and efficient use of resources in the public sector in general.

**Recommendation 10:** *It is important to ensure clear and thorough mechanisms for resource mobilisation and for channelling funds to the communities so that the limited resources reach where they are needed.*

### 5.11 Policy-oriented sectoral impact research

*[See comments at various points in the report on information gaps and absence of issue-focused analysis]*

The transition from an HIV/AIDS crisis to a full-blown AIDS crisis will be dramatic. Looking at the next couple of decades there is a large number of uncertainties about the future shape of the pandemic. These uncertainties, however, have implications for decisions taken and policies set at the present stage.

One important example is policies for the health sector. Given the fact that hospitals in the most affected African countries are already overburdened, what will an increase of some 50 % in the number of people with full-blown AIDS mean? How will the balance between hospital treatment and home-based care be managed? Is expansion of hospital capacity desirable or possible? What if in five years time an affordable vaccine or cure is discovered?

A very different example is from the field of law and order and security. In many African countries armies are going to be nearly wiped out if one is to believe the rates of HIV infection reported at present. In the Southern African region, the repatriation from South Africa of HIV-positive miners from Malawi and Mozambique is likely to create instability and increased tensions between South Africa and the neighbouring states, as will the large number of orphaned juveniles likely to get involved in cross-border crime. Peace and stability in the region appears elusive partly because of the HIV/AIDS epidemic.

**Recommendation 11:** *It is recommended that NORAD, in co-operation with the key African recipients of Norwegian aid and other development partners, considers the possibility of promoting and supporting a number of policy-oriented future sector studies of the social, political and economic impact of HIV/AIDS. Important sectors for such studies may be education, health, agriculture, mining and perhaps security, peace and stability. Macroeconomic implications and budgetary implications would have to form part of the studies as a major part of the policy problems is connected to funding them. The studies would aim at clarifying the implications of future developments for policies that are being set today. Such studies will complement Norwegian support to the national AIDS commissions, which will also need to deal with the longer-term effects of the crisis.*

## 6. References

- Adler, M.W.(ed.) (2001). *ABC of AIDS*.  
London, BMJ Publishing Group
- Ainsworth, M. (1993). *The Impact of HIV/ AIDS in African Development.*:  
African Development Bank
- Norwegian Embassy, Maputo (2001). *Virksomhetsplan 2002-2004.*:
- Armstrong, S. (2000). *Caring for carers, Managing stress in those who care for people with AIDS.*: UNAIDS
- Arndt, C. L., J. (2000). *The macro implications of HIV/AIDS in South Africa.*:  
Trade and Industrial Policy Secretariat (TIPS), South Africa
- Badcock-Walters, P. W., A. (2000). *HIV/AIDS and development in the education sector.*: Health Economics & HIV/AIDS Research Division (HEARD), University of Natal
- Barings Bank, I. (1999). *The Economic Impact of AIDS in South Africa.*: ING Barings Bank
- Barnett, T., and P. Blaikie (1992). *AIDS in Africa: its present and future impact*.  
London: Belhaven Press.
- Barnett, T., E. Blas, and A. Whiteside (2002). *AIDS Briefs, Integrating HIV/AIDS into sectoral planning.*: WHO, SARA, HHRAA, USAID
- Barnett, T., and M. Haslwimmer (1995). *The effects of HIV/AIDS on farming systems in eastern Africa*. Rome: FAO Farm Management and Production Economics Service.
- Barnett, T., and A. Whiteside (2001). The World Development Report 2000/01: HIV/AIDS still not properly considered! *Journal of International Development* 13:369-376.
- Barnett, T., A. Whiteside, and C. Desmond (2000). *The social and economic Impact of HIV/AIDS in poor countries: a review of studies and lessons learnt*. Geneva: UNAIDS
- Barrett, H., and A. Browne (2001). *What price children? The added value of children to rural households in Zambia.*: ID21 Development Research Reporting Service
- Berer, M., and S. Ray (1993). *Women and HIV/AIDS : an international resource book : information, action and resources on women and HIV/AIDS, reproductive health and relationships*. London: Pandora.
- Bjorkman, H. (2001). *Placing HIV/AIDS at the Centre of the Human Development Agenda: Implications for National Development Plans and Budgets, Poverty Reduction Strategies, and Sector Plans.*: UNDP
- Bollinger, L. S., John (1999). *The Economic Impact of AIDS*. Glastonbury: The Futures Group International
- Bonnel, R. (2000a). *Economic analysis of HIV/ AIDS.*:
- Bonnel, R. (2000b). *HIV/ AIDS: Does it increase or decrease growth? What makes an economy HIV-Resistant?.*
- Brunborg, H. (2002). *Demografiske konsekvenser av hiv/aids i Norges samarbeidsland i Afrika og Asia*. Oslo: Statistisk sentralbyrå (SSB)
- Bröring, G. (1996). International tourists: a specific target group for AIDS prevention programmes. *Health and the International Tourist*.



- Bullock, S. (1994). *Women and work / prepared by Susan Bullock*. London: Zed Books.
- Clancy, P. (1998). The economic impact of AIDS at Firm Level in Tanzania, University of East-Anglia.
- Corbett, J. (1988). Famine and Household Coping Strategies. *WORLD DEVELOPMENT* 16:1099-1112.
- Crewe, M. (2000). A University response to HIV. *AIDS Analysis Africa* 10.
- Cuddington, J. (1991). *modelling the Macroeconomic Effects of AIDS: the Dualistic, Labour-surplus Economy*.: World Bank Economic Review 7
- Dale, R. W. (2001). The HIV/AIDS controversy: Focusing on some of the actors in the South African debate on HIV/AIDS, Institutt for allmenntmedisin og samfunnsmedisinske fag, Universitetet i Oslo.
- Danziger, R. (1994). The social impact of HIV/AIDS in developing countries. *Social Science & Medicine* 39:905-917.
- Descosas, J. (1996). *HIV and Development*.: World Bank
- Desmond, C., K. Michael, and J. Gow (2000). *The hidden battle: HIV/AIDS in the family and community*.: Health Economics & HIV/AIDS Research Division (HEARD), University of Natal, Durban
- Douoguih, K (2001). *The Implications of HIV/AIDS on the Zambian Economy*  
The Economist 10 February 2002 The worst way to loose talent
- FAO (2001) HIV/AIDS and food security  
[www.fao.org/news/2001/stockholm/villarreal.htm](http://www.fao.org/news/2001/stockholm/villarreal.htm)
- FAO Committee on World Food Security (2001). *The impact of HIV/AIDS on food security*.: Food and Agriculture Organization of the United Nations (FAO) / World Agricultural Information Centre (WAICENT)
- Forgy, L. (1993). *The Economic Impact of AIDS in Zimbabwe*.: REDSO/ESA
- Forgy, L. M., A (1994). *The Economic Impact of AIDS in Zambia*. Lusaka: The ministry of Health/ USAID
- Forster, P. G. (2001). AIDS in Malawi: Contemporary Discourse and Cultural Continuities. *African Studies* 60:245-261.
- Forsythe, S (1999). HIV/ AIDS and Tourism *AIDS Analysis Africa* 9.
- Foster, G., C. Makufa, R. Drew, S. Kambeu, and K. Saurombe (1996). Supporting Children in Need Through a Community-Based Orphan Visiting Programme. *AIDS Care* 8:389-404.
- Future Harvest  
[www.futureharvest.org](http://www.futureharvest.org)
- Government of Mozambique (2000). *National Strategic Plan to Combat STD/HIV/AIDS 2000 - 2002*. Maputo: Government of Mozambique
- Government of Mozambique (2001). *Action Plan for the Reduction of Absolute Poverty 2001-2005 (PARPA)*. Maputo: Government of Mozambique
- Hampton, J. (1991). *Living positively with AIDS : the AIDS Support Organization (TASO), Uganda*. London: ActionAid.
- Hansen, K. et. al. (1999). *The Costs of Hospital Care at Government Health Facilities in Zimbabwe with Special Emphasis on HIV/AIDS Patients*.: University of Zimbabwe
- Harber, M. (2002). *AIDS Brief Social Workers*. Durban: HEARD  
HEARD  
[www.und.ac.za/und/heard](http://www.und.ac.za/und/heard)
- Heineken, L. *Security and Development*.

- Journal of Conflict 1, 1.
- Herdt, G. H. (1997). *Sexual cultures and migration in the era of AIDS : anthropological and demographic perspectives*. Oxford: Clarendon Press.
- Hunter, S., and J. Williamson (2000). *Children on the brink: strategies to support children isolated by HIV/AIDS.*: United States Agency for International Development (USAID)  
[www.synergyaids.com/docs/intro97.pdf](http://www.synergyaids.com/docs/intro97.pdf)
- Haacker, M. (2002). *The economic consequences of HIV AIDS in Southern Africa.*: IMF
- International Crisis Group (ICG) (2001). *HIV AIDS as a security issue*. Washington/Brussels: International Crisis Group (ICG)  
[www.crisisweb.org/projects/showreport.cfm?reportid=321](http://www.crisisweb.org/projects/showreport.cfm?reportid=321)
- International Labour Organization (ILO) (2000). *HIV/AIDS: A threat to decent work, productivity and development.*: International Labour Organization (ILO)
- IPS [www.ips.org](http://www.ips.org)
- Juuko, S. (2002). Bistandsaktuelt 1/2002 Et nytt skritt mot aids-vaksine  
[www.bistandsaktuelt.com](http://www.bistandsaktuelt.com)
- Kasawa (1993). *The Economic Impact of AIDS in Africa.*: Futures Group International
- Kasunda, A. (2002). Daily Times 13 February 2002 *HIV/AIDS Weaken Agriculture*
- Kelly, M. J. (1999). *The Impact of HIV/ AIDS on schooling in Zambia*. Lusaka: 11'th International Conference on AIDS and STDs in Africa
- Keusen, R. (2000). *Evaluation on Combating the spread of STD/HIV/AIDS in the transport sector along the Beira Corridor.*:
- Lie, G. T. (1996). The disease that dares not speak its name : studies on factors of importance for coping with HIV/AIDS in Northern Tanzania. Doctor Psychologiae degree, University of Bergen.
- Lindboe, M. (2000). Dagbladet 21 Mars 2000 *Nye sexvaner - mindre aids*  
[www.dagbladet.no/nyheter/2000/03/21/198590.html](http://www.dagbladet.no/nyheter/2000/03/21/198590.html)
- Loewenson, R., and A. Whiteside (1997). *Social and economic issues of HIV/AIDS in Southern Africa*. Harare: Southern Africa AIDS Information Dissemination Service.
- Lyons, M. (1998). *The Impact of HIV and AIDS on Children, Families and Communities: Risks and Realities of Childhood during the HIV Epidemic.*:  
[www.undp.org/hiv/publications/issues/english/issue30e.html](http://www.undp.org/hiv/publications/issues/english/issue30e.html)
- Marcus, R. (1993). *Gender and HIV/AIDS in Sub-Saharan Africa : the cases of Uganda and Malawi.*: Brighton: Institute of Development Studies
- Michael, K. (1999). Best Practices: a review of company activity on HIV/ AIDS in South Africa. *AIDS Analysis Africa* 10:2.
- Michiels, S. I. (2001). *Strategic approaches to HIV prevention and AIDS mitigation in rural communities and households in Sub-Saharan Africa*. Rome: Food and Agriculture Organization of the United Nations (FAO)
- Moore, D. (1999). *The aids threath and the private sector.*: *AIDS Analysis Africa* 9, 1-2
- Muller, O., and N. Abba (1990) The Impact of AIDS mortality on children's education in Kampala AIDS Care

- Mutangadura, G. (2000). *Household welfare impacts of mortality of adult females in Zimbabwe: Implications for policy and programme development.*: The AIDS and Economics Symposium  
New African March 1987
- Preble, E. A. (1990). Impact of HIV/AIDS on African Children. *SOCIAL SCIENCE & MEDICINE* 31:671-680.
- Simon-Meyer, J. (2002). *AIDS Brief, Media Personnel.* Durban: HEARD
- Smart, R. (2002). *AIDS Brief, Local Government.* Durban: HEARD
- Southern African Economist 15 April 1997 AIDS toll on regional economies
- Sulwe, J. K. (1998). *The Zambian HIV/AIDS District Response Initiative An Assessment of Four Districts in Zambia.*
- Sundby, J. (2002). Dagbladet 8. February 2002 Afrikas kvinner, hiv og graviditet [www.dagbladet.no/print/?/kultur/2002/02/08/311361.html](http://www.dagbladet.no/print/?/kultur/2002/02/08/311361.html)
- Tarfica, A. C. (2000). *Exploring the Implications of the HIV/AIDS Epidemic for Educational Planning in Selected African Countries: The Demographic Question.*
- The Global Business Council on HIV & AIDS (2002)  
[www.businessfightsaids.org/](http://www.businessfightsaids.org/)
- The National Institute of Allergy and Infectious Diseases (NIAID) (2002)  
[www.niaid.nih.gov](http://www.niaid.nih.gov)
- The United Republic of Tanzania (2001a). *National policy on HIV AIDS.:*
- The United Republic of Tanzania (2001b). *Tanzania Poverty Reduction Strategy Paper.:*
- The United Republic of Tanzania (2001c). *Tanzania Poverty Reduction Strategy Paper Progress Report 2000/01.:*
- Tibaijuka, A. K. (1997). AIDS and Economic Welfare in Peasant Agriculture: Case studies from Kagabiro Village, Kagera Region, Tanzania. *World Development* 25:963-975.
- UNAIDS  
[www.unaids.org](http://www.unaids.org)
- UNAIDS (1998a). *Guide to the strategic planning process for a national response to HIV/AIDS: Strategic plan formulation.* Geneva: UNAIDS
- UNAIDS (1998b). *Report on the global HIV/AIDS epidemic June 1998.* Geneva: UNAIDS
- UNAIDS (1999a). *From Principle to Practice; Greater Involvement of People Living with or Affected by HIV/AIDS (GIPA).* Geneva: UNAIDS
- UNAIDS (1999b). *A review of household and community responses to the HIV/AIDS epidemic in the rural areas of sub-Saharan Africa.* Geneva: UNAIDS
- UNAIDS (2000a). *AIDS in Africa; Country by country (ADF Profile Book).* Geneva: UNAIDS
- UNAIDS (2000b). *Collaboration with traditional healers in HIV/AIDS prevention and care in sub-Saharan Africa.* Geneva: UNAIDS
- UNAIDS (2000c). *The Economic Impact of AIDS in Africa, A Review of Literature.* Geneva: UNAIDS
- UNAIDS (2000d). *Economics in HIV/AIDS planning: getting priorities right.* Geneva: UNAIDS
- UNAIDS (2000e). *Enhancing the Greater Involvement of People Living or affected by HIV/AIDS (GIPA) in sub-Saharan Africa.* Geneva: UNAIDS

- UNAIDS (2000f). *Guidelines for Studies of the Social and Economic Impact of HIV/AIDS*. Geneva: UNAIDS
- UNAIDS (2000g). *Report on the global HIV/AIDS epidemic - June 2000*. Geneva: UNAIDS
- UNAIDS (2001a). *AIDS epidemic update - December 2001*. Geneva: UNAIDS
- UNAIDS (2001b). *AIDS, Poverty Reduction and Debt Relief: A Toolkit for Mainstreaming HIV/AIDS Into Development Instruments*. Geneva: UNAIDS
- UNAIDS (2001c). *Nevirapine Donation, For Prevention of Mother to Child Transmission of HIV*. Geneva: UNAIDS
- UNAIDS (2002). *WHO and UNAIDS continue to support use of Nevirapine for prevention of mother-to-child transmission*. Geneva: UNAIDS
- UNAIDS and UNICEF (1999). *Children orphaned by AIDS*. New York: UNICEF
- UNAIDS and WHO (2000). *Epidemiological Fact Sheets by Country*. Geneva: UNAIDS/WHO Working Group on Global HIV/AIDS and STI Surveillance,
- UNDP [www.undp.org/hiv/publications/index.htm](http://www.undp.org/hiv/publications/index.htm)
- UNDP (2000). *Human Development Report 2000*. New York: Oxford University Press.
- UNDP Tanzania Country Office (2001). *UNDP, government and partners establish strong commission to fight HIV/AIDS*. [www.tz.undp.org/at\\_work/tacaids.html](http://www.tz.undp.org/at_work/tacaids.html)
- UNICEF (1991). *AIDS and orphans in Africa*. New York: UNICEF
- UNICEF (2002) *Prevention of mother-to-child transmission of HIV* [www.unicef.org/aids/mother.htm](http://www.unicef.org/aids/mother.htm) Accessed: 27 March 2002
- United Nations (1994). *AIDS and the demography of Africa*. New York: United Nations, Department for Economic and Social Information and Policy Analysis.
- United Nations Population Division (2002) *World Population Prospects Population Database* <http://esa.un.org/unpp/>
- US Department for Health and Human Services (1999).
- USA Today 14 January 2002 *AIDS epidemic lays waste to South African schools* [www.usatoday.com/news/healthscience/health/aids/2002-01-14-south-africa.htm](http://www.usatoday.com/news/healthscience/health/aids/2002-01-14-south-africa.htm)
- USAID (1996). *AIDS Briefs*. United States Agency for International Development (USAID)
- USAID (2001). *How Does HIV/ AIDS Affect African Businesses?:* United States Agency for International Development
- Webb, P., and T. Reardon (1992). *Drought Impact and Household Response in East and West Arica*. *Quarterly journal of international agriculture* 31:230-246.
- West Africa Rice Development Association (WARDA) [www.warda.org](http://www.warda.org)
- Williams, G. (1992). *From fear to hope : AIDS care and prevention at Chikankata Hospital, Zambia*. London: ActionAid.

- World Bank (1995). *Africa - Regional AIDS strategy for the Sahel*. Washington: World Bank
- World Bank (1998a). *Confronting AIDS: Evidence from the developing world : Selected background papers from the World Bank Policy Research Report, Confronting AIDS: public priorities in a global epidemic*. Brussels: The European Commission.
- World Bank (1998b). *Malawi - Secondary Education Project*. Washington: World Bank
- World Bank (1999a). *Confronting AIDS - Revised edition: Public Priorities in a Global Epidemic*. Oxford: Published for the World Bank [by] Oxford University Press.
- World Bank (1999b). *Intensifying Action Against HIV/AIDS in Africa: Responding to a Development Crisis*. Washington: World Bank
- World Bank (2000). *World development report 2000/2001: Attacking Poverty*. Oxford: Oxford University Press.
- World Bank. 2001. "Word Development Indicators,".

# Summary

This desk study was commissioned by NORAD to review recent literature on socio-economic consequences of the HIV/AIDS pandemic in sub-Saharan Africa with focus on Malawi, Mozambique, Tanzania, Uganda and Zambia. The report gives a general socio-economic overview and identifies some issues of importance for Norway's assistance to the five focus countries. It is hoped that the report will provide useful background material for development assistance officials and other interested parties.

Overall, the report argues that for the countries focused, the present decade will be the worst ever with regard to AIDS morbidity and mortality. The exception is Uganda, which was early at launching an effective anti-AIDS campaign.

The report stresses the severe long-term consequences of the pandemic but finds little evidence of attempts to explore future socio-economic effects emanating from profound changes in population structures. It is recommended that Norway offers support to countries which attempt to explore the future demographic and societal effects of AIDS.

Since the population in the focus countries is already poor and vulnerable, the pandemic will be serious for these countries. The poorer households and in particular women and children are likely to be worst affected. Agricultural production, of key importance for incomes and food supply, is set to drop from already low levels. Families and communities break apart and young people's future becomes insecure. The manufacturing sector, transport, mining, construction, tourism and the financial sector will be hit in various ways. Recent studies of African countries looking at key determinants of long-term growth indicate considerable reductions in the growth rate of GDP per capita as a result of the AIDS pandemic.

The study argues that the fight against HIV/AIDS in Africa must come at the top of national and international agendas mainly because AIDS is now the biggest killer in Africa and hits the most productive segment of the population. It is stressed that the amount of resources for the fight against HIV/AIDS will increase. Efforts will have to be mainstreamed in public sector planning and budgeting.

It is important that Norway assists the most affected countries to improve resource flow monitoring, to learn from each other by using the diversity in anti-AIDS strategy and integrate their planning and management of the crisis into country planning frameworks.

ISSN 0805-505X

ISBN 82-8062-020-6

## Recent Reports

- R 2001: 5 STRAND, Arne, Kristian Berg Harpviken and Dr. A. W. Najimi  
Afghanistan: Current Humanitarian Challenges. Bergen, 2001, 24 pp. (Price NOK 50 + postage)
- R 2001: 6 ISAKSEN, Jan and Elling N. Tjønneland  
Assessing the Restructuring of SADC - Positions, Policies and Progress. Bergen, 2001, 65 pp. (Price NOK 90 + postage)
- R 2001: 7 ANDVIG, Jens Chr., Odd-Helge Fjeldstad with I. Amundsen, T. Sissener and T. Søreide  
Corruption. A review of contemporary research. Bergen, 2001, (Price NOK 125+postage)
- R 2002: 1 SØREIDE, Tina  
Corruption in public procurement. Causes, consequences and cures. Bergen, 2002, (Price NOK 50 + postage)
- R 2002: 2 AALEN, Lovise  
Ethnic federalism in a dominant party state: The Ethiopian experiences 1991-2000. Bergen, 2002, 150 pp. (Price NOK 125 + postage)
- R 2002: 3 WIIG, Arne  
En vurdering av betalingsbalansetøtte til Bangladesh. Bergen, 2002, 18 pp.
- R 2002: 4 WIIG, Arne, Anna Milford, Ottar Mæstad og Ørjan Skare  
Kan vi kjøpe mer fra våre samarbeidsland? Hvem vet hva og hvordan? Bergen, 2002, 84 pp.
- R 2002: 5 GLOPPEN, Siri  
Reconciliation and democratisation: Outlining the research field. Bergen, 2002, 52 pp.
- R 2002: 6 MATHISEN, Harald and Lars Svåsand  
Funding political parties in emerging African democracies: What role for Norway? Bergen, 2002, 26 pp.
- R 2002: 7 RAKNER, Lise and Lars Svåsand  
Multiparty elections in Africa's new democracies. Bergen, 2002, 34 pp.

A complete list of publications, CMI's Annual Report and CMI's quarterly newsletter are available on CMI's homepage <http://www.cmi.no> .

### For priced publications:

Surface mail (B-economique) free with prepaid orders. For airmail (A-prioritaire) outside the Nordic countries add 20 %

### Four easy ways to pay:

Cheque, issued in Norwegian kroner

Post office giro, paid by International Giro: 0808 5352661

SWIFT: DNBANOB, Den norske Bank no: 5201.05.42308

### Order from:

Chr. Michelsen Institute

P.O. Box 6033 Postterminalen, N-5892 Bergen, Norway

Fax: + 47 55 57 41 66 Phone: + 47 55 57 40 00

E-mail: [cmi@cmi.no](mailto:cmi@cmi.no)