Social health insurance

Social security and HIV/AIDS

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1. Introduction

In 2004, 2.3 million people died of AIDS in Sub-Saharan Africa; an estimated 3.1 million people became newly infected. Sub-Saharan Africa is home to 60 per cent of all people living with HIV throughout the world. The majority of them are women. UNAIDS estimates that in the near future in some countries every second child below age five might die.¹

HIV/AIDS has a devastating impact on Africa’s economies: it impacts on productivity and per capita income, years of income due to reduced life expectancy and health status. The HIV/AIDS-related loss of workforce in the countries most hit in Africa is estimated at 10 per cent in 2006; the loss in growth of the gross domestic product (GDP) due to HIV/AIDS in these countries amounts to 18 per cent until the year 2020.²

The financial effects of HIV/AIDS on social security are dramatic, particularly regarding health and pension schemes, which might reach their limits in the very near future. The financial burden of the pandemic will then fall on government budgets that in many countries already suffer from significant deficits.

But HIV/AIDS is foremost a human tragedy. The impact of AIDS is being felt by millions of individuals and households. The loss of lives, the debilitating effects of HIV/AIDS and the cost of health care force entire families into poverty.

People with HIV/AIDS often bear the financial burden of ill health and the related loss of income and savings. If not covered by social security they are easily pushed into poverty or existing poverty is deepened by health expenditure: the World Health Organization (WHO) estimates that every year about 100 million people are forced into poverty due to health care costs.³


Against this background, HIV/AIDS raises vital concerns about the appropriate policy response for dealing with HIV/AIDS and health-related poverty in the context of social security.

2. What are the challenges?

HIV/AIDS in Africa concerns countries which are confronted by very low or modest economic growth. In Sub-Saharan Africa the per capita GDP has declined by around 20 per cent to about USD 460 since 1990.4

Further, many countries in Sub-Saharan Africa are characterized by a high degree of poverty among the population, low organizational capacity, and financial constraints in the public sector. The population5 which is living below USD 1.00 a day in Sub-Saharan Africa was in 1993 already about 40 per cent and many of the poor are concerned by HIV/AIDS.

In fact, often HIV/AIDS is not just coincident with poverty, frequently HIV/AIDS is caused and fuelled by poverty e.g. when poverty drives women to unprotected sex, contributes to migration or leads to a lack of information on available HIV campaigns. It is poverty which reduces options of people to efficiently manage HIV-related risks and thereby leads to the spread of HIV/AIDS.

In addition, social security coverage and particular social health protection is very low and even if it exists might fail to provide comprehensive benefits.6

These characteristics are reflected in the health sectors of countries concerned. The performance of health systems often suffers from under funding and inefficient resource allocation. As a result, many health systems lack facilities in rural regions and low quality of services and shortage of essential drugs are common problems.

Health systems' performance is especially held back by income and geographical inequalities leading to under utilization of services and preventive measures for HIV/AIDS. Financial barriers to access health services result in the exclusion of the majority of the population in many African countries. Frequently, inequalities in access concern the rural population, women, and workers in the informal economy, the self-employed, and the unemployed. These groups often include people with HIV/AIDS.

In most African countries principal barriers to access health services consist of high user fees or out-of-pocket payments. Private out-of-pocket payments amount to more than 40 per cent of total health expenditure in countries such as Senegal and Kenya. This equals the amount of government spending on total health expenditure. At the same time, health insurance coverage aiming at reducing the burden of health care costs for those in need ranges in Kenya at 7 per cent, in Senegal at 11.4 per cent and in South Africa at 17 per cent (Table 1).


Table 1. Financing of health care systems in Kenya, Senegal and South Africa

<table>
<thead>
<tr>
<th></th>
<th>Total expenditure as % of GDP</th>
<th>Government spending in % of total expenditure</th>
<th>Out-of-pocket payments in % of total expenditure</th>
<th>Coverage of population in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kenya</td>
<td>4.9</td>
<td>44</td>
<td>44.8</td>
<td>7 (NHIF)</td>
</tr>
<tr>
<td>Senegal</td>
<td>5.1</td>
<td>45.2</td>
<td>43.6</td>
<td>11.4 (IMPs and MOHs)</td>
</tr>
<tr>
<td>South Africa</td>
<td>8.7</td>
<td>40.6</td>
<td>12.4</td>
<td>17 (all health care plans)</td>
</tr>
</tbody>
</table>


Even if some kind of social health protection is provided, benefit packages often do not adequately address basic health care needs, particular those relating to people with HIV/AIDS. This might lead to devastating financial consequences of ill health even when socially protected.

HIV/AIDS has led to an increasing demand on health services and is significantly impacting on total health expenditure. The estimated number of adults living with HIV/AIDS in countries of Sub-Saharan Africa is shown in Table 2.

The adult rate of HIV/AIDS varies in these countries between 38.8 per cent in Swaziland and 0.8 per cent in Senegal; it reaches peaks above 20 per cent in countries such as Botswana, Lesotho, Namibia, South Africa, and Zimbabwe. It is 7.5 per cent in total in Sub-Saharan Africa. A significant number of children living with HIV/AIDS further adds to the total number of people living with HIV/AIDS.

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Table 2.  *Estimated number of adults* living with HIV/AIDS in countries of Sub-Saharan Africa, 2003

<table>
<thead>
<tr>
<th>Country</th>
<th>Adult rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola</td>
<td>3.9</td>
</tr>
<tr>
<td>Benin</td>
<td>1.9</td>
</tr>
<tr>
<td>Botswana</td>
<td>37.3</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>4.2</td>
</tr>
<tr>
<td>Burundi</td>
<td>6.0</td>
</tr>
<tr>
<td>Cameroon</td>
<td>6.9</td>
</tr>
<tr>
<td>Central African Republic</td>
<td>13.5</td>
</tr>
<tr>
<td>Chad</td>
<td>4.8</td>
</tr>
<tr>
<td>Congo</td>
<td>4.9</td>
</tr>
<tr>
<td>Côte d'Ivoire</td>
<td>7.0</td>
</tr>
<tr>
<td>Democratic Republic of Congo</td>
<td>4.2</td>
</tr>
<tr>
<td>Djibouti</td>
<td>2.9</td>
</tr>
<tr>
<td>Eritrea</td>
<td>2.7</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>4.4</td>
</tr>
<tr>
<td>Gabon</td>
<td>8.1</td>
</tr>
<tr>
<td>Gambia</td>
<td>1.2</td>
</tr>
<tr>
<td>Ghana</td>
<td>3.1</td>
</tr>
<tr>
<td>Guinea</td>
<td>3.2</td>
</tr>
<tr>
<td>Kenya</td>
<td>6.7</td>
</tr>
<tr>
<td>Lesotho</td>
<td>28.9</td>
</tr>
<tr>
<td>Liberia</td>
<td>5.9</td>
</tr>
<tr>
<td>Madagascar</td>
<td>1.7</td>
</tr>
<tr>
<td>Malawi</td>
<td>14.9</td>
</tr>
<tr>
<td>Mali</td>
<td>1.9</td>
</tr>
<tr>
<td>Mauritania</td>
<td>0.6</td>
</tr>
<tr>
<td>Mozambique</td>
<td>12.2</td>
</tr>
<tr>
<td>Namibia</td>
<td>21.3</td>
</tr>
<tr>
<td>Niger</td>
<td>1.2</td>
</tr>
<tr>
<td>Nigeria</td>
<td>5.4</td>
</tr>
<tr>
<td>Rwanda</td>
<td>5.1</td>
</tr>
<tr>
<td>Senegal</td>
<td>0.8</td>
</tr>
<tr>
<td>South Africa</td>
<td>21.5</td>
</tr>
<tr>
<td>Swaziland</td>
<td>38.8</td>
</tr>
<tr>
<td>Togo</td>
<td>4.1</td>
</tr>
<tr>
<td>Uganda</td>
<td>4.1</td>
</tr>
<tr>
<td>United Republic of Tanzania</td>
<td>8.8</td>
</tr>
<tr>
<td>Zambia</td>
<td>16.5</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>24.6</td>
</tr>
<tr>
<td><strong>Total Sub-Saharan Africa</strong></td>
<td><strong>7.5</strong></td>
</tr>
</tbody>
</table>

*Adults are defined as men and women aged 15-49.

Due to the absence of precise data it is difficult to quantify the financial impact of HIV/AIDS. HIV/AIDS-related cost is determined by factors which go far beyond the health sector. They include costs impacts of changing labour supply and quality of labour both leading to decreasing productivity and skills of the workforce. Further, HIV/AIDS has an influence on social security health and pension schemes, where the contributor base is threatened. Further, in the short run, a decline in old age pensioners is to be expected whereas take up
of health benefits will increase. These trends will be associated with a growing number of orphans in need of social security benefits.

The International Labour Office (ILO) has developed a model to quantify the impact of HIV/AIDS on health expenditure focusing in a first phase on the situation in Botswana. The model projects the impact of Botswana's comprehensive HIV/AIDS programme (NSF) and aims at contributing to the discussion of financing HIV/AIDS-related expenditure.

The model takes numerous variables into account, such as:

- Size of population defined by mortality and fertility rates.
- Utilization of health services.
- Level of poverty, take up of pensions, and other services.
- Economic growth, size of labour force, productivity, savings and investments.
- Government budget.

These aspects are simulated by using separate modules for the population, HIV/AIDS incidence, prevention and AIDS programmes, health care, economy, and government balance.

The analysis of health expenditure is based on utilization patterns; unit cost for treatment; assumptions on medical inflation e.g. regarding staff wages and technical progress. Further, public expenditure is separated from private expenditure, which includes e.g. occupational health insurance. (Overview 1).

**Overview 1. ILO health budget for Botswana - The impact of HIV/AIDS: Health care model**

<table>
<thead>
<tr>
<th>Input</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient statistics by age (hospital days, average length of stay 1995-2001)</td>
<td>Outpatient visits by age and groups (HIV-, HIV +, ARV-patients, AIDS-patients) (2001-2030)</td>
</tr>
<tr>
<td>Outpatient visits by age 1996 - 2001</td>
<td>Inpatient treatment by age and groups (HIV-, HIV +, ARV-patients, AIDS-patients) (2001-2030)</td>
</tr>
<tr>
<td>Results from Population/AIDS/Prevention and Economic Model</td>
<td></td>
</tr>
</tbody>
</table>


The model calculates for every year the number of new infections, HIV cases with and without development of AIDS, AIDS-related mortality and number of children born with HIV.

Assumptions of the model include an estimated period of 7 years between infection and outbreak of AIDS, life expectancy of 2 years of AIDS patients (in absence of antiretroviral drugs (ARV) treatment), a substantial increased life expectancy for those people infected receiving ARV drugs (following the National Strategic Framework the model assumes that

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the proportion of people living with AIDS receiving ARV drugs will increase within the next years and reach about 80 per cent by 2012), low, middle and high-price scenarios for treatments, and an age-related utilization of health services. Economic developments in Botswana are assumed to suffer from an impact of HIV/AIDS on the labour force and on public and private expenditure.

The following results are taken from the baseline scenario of the model. Deviating initial assumptions, such as life expectancy, ARV drugs and prices, transition from informal to formal sector, building up of infrastructure, donor support etc., have a substantial impact on the outcome.

The analysis reveals that compared to the No-AIDS scenario:

- Total expenditure on HIV/AIDS programmes will reach highest levels in 2015. Orphan care will account for about 30 per cent of total HIV/AIDS programme expenditure during the next years. Home-based care will also substantially increase (Chart 1).

**Chart 1. Projection of expenditure on HIV/AIDS programmes in Botswana**

- Public expenditure on health care and AIDS programmes will increase from 2.2 per cent of the gross domestic product (GDP) in 2000 to almost 6 per cent in 2009 due to the mainly public funding of HIV/AIDS programmes.

- The public share of HIV/AIDS expenditure will be reduced to 2 per cent in 2030 due to the increasing role of occupational health insurance and the reduction of HIV/AIDS costs after 2015. Increased coverage of prepayment schemes such as occupational health insurance is based on the assumed transition from informal to formal employment.

Total recurrent expenditure on health care - including public and private expenditure, such as out-of-pocket payments and private health insurance - will continue to increase from below 4 per cent of GDP to 9 per cent in 2011 (Chart 2).

**Chart 2. Total expenditure for health (public, occupational health, private - in per cent of GDP)**

The enormous burden imposed by HIV/AIDS calls for feasible solutions, which address the specific context and characteristics of high HIV prevalence and declining public sources. What mechanisms can be instituted to minimize the exclusion from access to health services and recognize the financial requirements of health systems?

It seems that HIV/AIDS cannot be addressed ignoring the context of poverty in which it develops. Given the expected impact on public expenditure, it will be necessary to seek for additional sources of funding which do not add to the financial burden of the poor. Will contributory mechanisms such as more efficient and effective social health insurance schemes reduce the financial burden of the poor suffering from ill health and have a role to play in the future?

3. **What are the options?**

Over the last years, many countries showed increased interest in prepayment schemes such as social health insurance and mutual health organizations. Social health protection is seen as a key instrument, which can address health-related poverty and reduce financial barriers to access health services. It is usually based on a broad concept of financing mechanisms of risk pooling such as national social health insurance and mutual benefit societies, occupational schemes, commercial private insurance, community-based micro-insurance and national health services.

Countries such as Ghana and Kenya have developed a framework for social health insurance or are striving for reforms to expand insurance coverage. South Africa is also currently seeking new ways of bringing those in need into the mainstream health services.

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Reform strategies discussed include extending insurance coverage in both the private and public health sector.

In Senegal failures of the existing arrangements for provision of health services have led to the development of "les mutuelles de santé" (mutual health organizations), e.g. in the area of Thiès.

Despite the interest in social health insurance there is currently little quantitative information available on the impact of health insurance coverage on access to health care and poverty. Little is also known about the poverty impact of strategies to cope with health expenditure when covered by health insurance.

These aspects have been addressed in the context of the activities of the ILO/WHO/GTZ Consortium on Social Health Insurance. The Consortium initiated a major research project jointly carried out by ILO, WHO and the OECD Development Centre. The comparative study aimed at analyzing the quantitative impact of health insurance coverage in Kenya, Senegal and South Africa on health service utilization, distribution of catastrophic spending, health care financing strategies and poverty.

The study was based on national representative data on household and individual level from the World Health Survey for Senegal and South Africa and the Household Expenditure and Utilization Survey for Kenya. It applied a multiple logistic regression model and used the ILO definition of social health protection including statutory and non-statutory, formal and informal, public, private and commercial health protection schemes. Further, the WHO definition of catastrophic expenditure was applied. It specifies catastrophic expenditure as health expenditure exceeding 40 per cent of a household's capacity to pay.

As shown in Figure 1, the study reveals that in the three countries studied the insured use more outpatient services than the non-insured. This result indicates that health insurance can overcome financial barriers to access health services.

**Figure 1. Utilization of outpatient services in South Africa, Kenya and Senegal**

![Bar chart showing utilization of outpatient services in South Africa, Kenya and Senegal for insured and uninsured](image)


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Moreover, in Senegal, among the group of the non-insured, affordability of health services is a major barrier for two thirds of the non-insured as compared to one third of the insured. As regards affordability of medicines prescribed, more than 63 per cent of the non-insured mentioned this reason, whereas no insured person raised this issue (Figure 2).

**Figure 2. Health care utilization by insurance status in Senegal, 2002**

![Health care utilization by insurance status in Senegal, 2002](image1)


The analysis of the impact of health insurance on poverty showed that insured households are less likely to face catastrophic health care costs exceeding the households’ capacity to pay (Figure 3). However, social health protection schemes remain far from being perfect since also the insured could not get or afford all they needed and faced catastrophic health care costs.

**Figure 3. Percentage of households facing catastrophic health care costs**

![Percentage of households facing catastrophic health care costs](image2)


In order to cope with the financial burden of ill health, households use various strategies to cover costs including borrowing money from relatives, friends or financial institutions and selling assets such as livestock and land if cash savings are not sufficient. These strategies impact on impoverishment and income generation.
Health insurance coverage seems to reduce the need to sell assets in case of financial difficulty. In Senegal, 15.4 per cent of non-insured households sold assets so as to finance health care expenditure compared to 4.4 per cent of insured households. In addition, health insurance coverage reduces the probability of borrowing, except in Kenya.

**Figure 4. Senegal: Welfare threatening ways of financing health care**

![Diagram showing welfare financing methods in Senegal](image)


The results of the study confirm that health insurance can overcome financial barriers to access health services. The study also reveals that households may still experience enormous financial consequences even when covered by insurance if the benefit package is not comprehensive. Therefore, benefit packages should at least aim at protecting the poor against catastrophic costs.

However, insurance protection is mainly granted to those who can afford to belong to health insurance. Therefore, the state should carry out its role in assuming overall responsibility for ensuring adequate social health protection for the whole population, and in particular for people with HIV/AIDS and the poor. This includes development of an inclusive legal framework, ensuring adequate funding and comprehensive benefits.

Further, given the enormous amount of funds necessary to address the challenges ahead, it will be important to integrate all forms of health protection schemes as well as classical forms of social security such as targeted social assistance approaches and universal benefits for people with HIV/AIDS and the poor.

**4. What are the policy implications of these results?**

Despite the enormous socio-economic and medical challenges in developing countries, there are signs of hope. According to the latest UNAIDS report, the spread of HIV/AIDS and increases in death rates could be halted in a small but growing number of countries where the fight against AIDS and poverty is high on the political agenda.

The challenges and options outlined above emphasize the importance of political strategies, which set priorities in extending coverage of social protection schemes to people with HIV/AIDS and the poor.
HIV/AIDS and the poor and investing in social health protection in order to strive for universal access.

In its Global Campaign on Social Security and Coverage for All, ILO does not advocate a specific model of social health protection for all countries. Needs could be addressed by introducing and improving statutory health insurance mechanisms, universal services and social assistance programmes. Related mechanisms have proved to be effective and efficient in ensuring universal access in developed, middle-income and transition countries.

Other approaches might include supporting innovative mechanisms such as community-based micro-insurance schemes, in particular in countries with low administrative and financial capacities, where coverage of statutory schemes cannot be immediately provided. In this context, it will be essential to build efficient linkages between statutory and innovative schemes as well as social assistance schemes in order to improve sustainability of the schemes and support the introduction of comprehensive benefit packages.

While ILO does not advocate specific approaches, there are some general values and principles that ILO suggests should be taken into account with regard to the development of social health protection. They include human dignity, social justice, equity and equality, and solidarity. This includes providing access to basic health protection and shielding against catastrophic health care costs.

Social and financial sustainability of schemes, good governance and efficient and effective administration are further aspects, which are key for success. This includes addressing low enforcement, capacity building and training needs.

It is also crucial for ILO that a transparent and democratic management is established and social partners and other stakeholders are encouraged to contribute to the development of social health protection. This refers to a participatory approach of management of schemes and governance based on social dialogue and informed decision-making.

Besides extending coverage of social health protection schemes it is key to provide comprehensive benefit packages, which address the needs of the population, particularly those suffering from HIV/AIDS. This does not mean the larger the benefit package the better, but balancing between cost and risk protection. It will be necessary to set priorities in order to address the needs of the poor and those suffering from HIV/AIDS.

In many cases it is essential to seek additional funding, e.g. from donors such as the Global Fund on AIDS.

Further, the extension of social health protection schemes should be supported by efficient public health and HIV/AIDS programmes, e.g. providing free pharmaceuticals for people with HIV/AIDS. Best practices of such programmes include experiences in Brazil where significant progress regarding mortality of AIDS patients occurred since the provision of free AIDS treatments.

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10 The Global Campaign on Social Security and Coverage for All was decided in the context of the new consensus on social security reached during the International Labour Conference, Geneva, 2001.


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Finally, it is important that policies are developed which address **considerations beyond the health sector**. Poverty and HIV/AIDS are closely linked with economic growth, employment, productivity, public finances, and many more policy sectors. An efficient and effective pro-poor and pro-health policy approach should aim at systematically coordinating these sectors.

An important step forward includes establishing synergies with existing programmes that aim at poverty alleviation and fighting HIV/AIDS such as efforts within the PRSP process and achieving the Millennium Development Goals. The profit would fall on the countries’ development and particularly people with HIV/AIDS and the poor, who only can generate income when in (relatively) good health.

**Bibliography**


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