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Background paper

SOCIAL HEALTH INSURANCE IN ENGLISH SPEAKING SUB-SAHARAN AFRICA

Prepared by Ceri Thompson for the DFID Health Insurance Workshop April 9-10, 2002 London

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Social Health Insurance in English speaking sub-Saharan Africa

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1. INTRODUCTION

Compulsory health insurance is now a major plank of health care financing reforms in a number of sub-Saharan African (SSA) countries. South Africa, Nigeria, Zimbabwe, Ghana and Malawi are considering proposals to implement such schemes initially for formal sector workers. Tanzania introduced a compulsory scheme in July 2001. National proposals refer to these schemes as social health insurance. Kenya has been implementing a similar scheme since the 1960s.

Social health insurance is firmly established in a number of Western European countries such as France and Germany as an alternative health care financing mechanism to general taxation. The transitional economies of Latin America, Eastern Europe and the Balkans have all introduced forms of social health insurance. Social funding has been strongly encouraged by the World Bank and other international agencies as a way of sharing the costs and risks of health care across the whole population. The extent to which such a financing mechanism is appropriate to the sub-Saharan Africa region, with its very different economic, political and capacity environment, is unclear.

1.1 Objectives

The main objective of this paper is to summarise the experience of the English speaking countries of sub-Saharan Africa with all forms of health insurance, but with particular reference to the emerging proposals for social health insurance. Published papers, grey literature, and where possible, national policy documents, have been collated and reviewed. The paper aims to provide an overview of the suitability of macro-economic conditions in the region to support the introduction of social health insurance, including the extent to which it will make a positive impact on health care services for the poor. In doing so, it hopes to contribute towards the question: is social health insurance an appropriate model of health insurance for sub-Saharan Africa?

This review focuses on Anglophone countries, but does include evidence and anecdotes from across Africa, where considered relevant. In particular the review focuses on those countries of interest to DFID currently developing some form of large compulsory health insurance scheme.

1.2 Definition of social health insurance

This review summarises sub-Saharan Africa experience with all forms of health insurance with a special interest in the emerging national proposals for social health insurance. There has been some variation in the definitions given to this kind of insurance. According to Costa (2002), there are six basic characteristics normally associated with these schemes. These are: -

- The social health insurance fund is financed by payroll contributions that are collected from employees, employers or both.
- Contributions are gathered in a specific, ring-fenced fund independent from the government's budget.
- Greater accountability is provided to the beneficiaries and contributors. Employers and employees have more say and influence on the application and use of collected resources.

- Social health insurance does not necessarily provide universal cover. It covers only those who contribute directly or are covered by government contributions through pension funds, unemployment funds or any other social security programme.
- Schemes set up a package of care, and do not cover healthcare benefits that are not explicitly defined in the package.
- Social health insurance schemes almost always operate exclusively as third-party payers acting on behalf of the beneficiaries; this involves the establishment of contractual relationships with independent (public or private) healthcare providers.

The new proposals for compulsory health insurance emerging in the region bear a strong resemblance to the characteristics above, and are referred to by their governments as social health insurance.

2. AN OVERVIEW OF ECONOMIC INDICATORS AND HEALTH SYSTEMS IN THE REGION

Health insurance raises revenues from either compulsory or voluntary contributions from members. Compulsory contributions are typically collected through payroll taxation. In low income countries, voluntary contributions rely on collecting payment from the informal sector, often people without regular income. This section briefly explores macro-economic conditions in sub-Saharan Africa, such as the state of the economy, the structure of the labour force and existing arrangements for health care financing.

2.1 Macro -economic profile

Sub-Saharan Africa comprises 26 of the bottom 27 countries in the human development index (HDI) ranking for 1999. However there are large regional differences in economic performance. South Africa, Gabon, Equatorial Guinea and Namibia each have GDP per capita in excess of $4,500. At the other end of the scale, the poorest four countries, Ethiopia, Malawi, Tanzania and Sierra Leone have GDP per capita of less than $650. South Africa is a regional economic anomaly in sub-Saharan Africa. Its GDP, at US$ 131.1 billion, is over 3 times larger than Nigeria's, the region's second largest economy.

Macro-economic trends in the region vary greatly. Many countries experienced negative growth rates during the period 1975-1999, and the region as a whole suffered a 10% drop in incomes during this period. Only Equatorial Guinea and Uganda have experienced annual GDP per capita growth rates averaging over 2.5% during the last 10 years, at 16.3% and 4% respectively. Inequality, as expressed by the Gini coefficient, is very high in sub-Saharan Africa. Table 6 in the appendix shows some important macro-economic indicators for the region.

2.2 Health care financing context

The cost escalation of health care services is a major problem across the region. The rising cost of private health insurance premiums, and social security premiums across the region is a symptom of this. In South Africa, for example, the proportion of household expenditure on healthcare by black Africans doubled from 2% to 4% in the period from 1990 to 1995. Expenditure by whites increased by 67% (from 3% to 5%) in the same period.

As in all other parts of the world, the finances for health come from a number of different sources. However in contrast to developed countries, a higher proportion of expenditure on health in sub-Saharan Africa comes from private sources, particularly user fees and, in the wealthier countries, private health insurance.

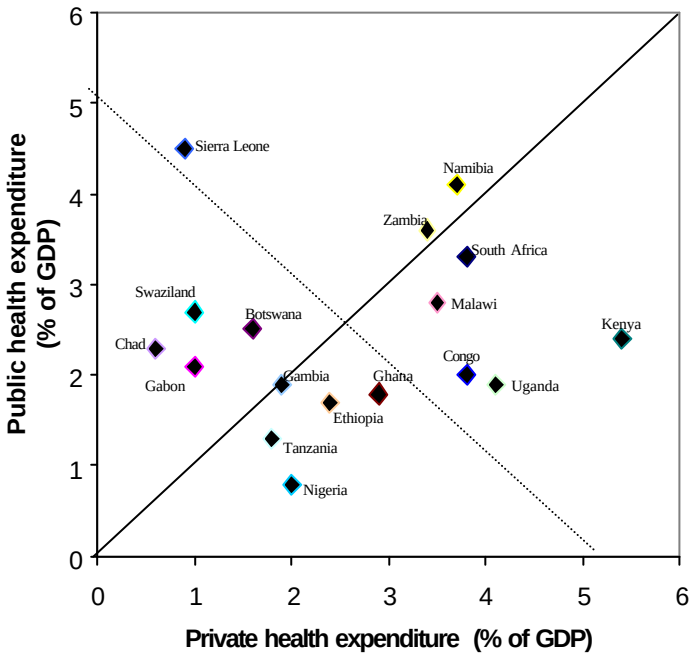
Figure 1 overleaf shows the balance between public and private funds for financing health care from the domestic economy. Those above the dotted line on the same figure are the countries in which total health expenditure is greater than 5% of GDP.

Governments in sub-Saharan Africa spend substantially less on health care as a proportion of the GDP than do Westernised countries. Only Namibia, South Africa and Zambia have a public health expenditure level of more than 3% of GDP. This is low compared to the 6% and 8% for most industrialised countries, Eastern Europe

and the Balkans (social health insurance expenditure is usually included in the public expenditure figure.) The 3% level is on a par with government contributions in regions such as Latin America, and South East Asia. Given the low overall levels of GDP, *per capita* health care expenditure is therefore extremely low in the region, ranging from $623 in South Africa to $15 in Tanzania (Human Development Report, 2001).

Private sources of finance therefore account for a greater share of domestic health resources than government contributions in more than half the countries, and in most of the very poorest. Here private financing can be seen less as a policy choice, but related to the overall low levels of GDP and the difficulty in implementing a tax collection system on a population with a low percentage of the labour force in the formal sector. (See Table 8: Private sources and levels of health care expenditure in the Appendix). In all English speaking sub-Saharan countries the predominant form of public funding is through general taxation. This is still true of Kenya who introduced a social health insurance fund in the 1960s.

Figure 1: Public and private sources of domestic health care finance in Anglophone sub-Saharan Africa[1]



Source: Derived from the Human Development Report 2001

[1] There was no available data for Zimbabwe. The revenue from health insurance funds in Kenya is included as public finances.

External resources for health, from international agencies, account for 30-45% of public health expenditure in the poorest countries, but can be less than 2% in the case of the richer countries such as South Africa and Botswana. (See Table 7: Government and external sources of health care expenditure in the Appendix). In many countries this aid flow helps to tip the overall balance of health care spending away from private sources.

We look at health care financing within a country because studies have shown that certain mechanisms disadvantage the poor and reduce their access to health care. In particular, user fees have been shown to introduce financial barriers to seeking health care in vulnerable groups. Countries such as Benin and Ethiopia have succeeded in raising up to 20% of recurrent MoH budgets through user fees. In Botswana, Kenya, Swaziland, Malawi and Zimbabwe user fees have contributed to less than 4% of recurrent budgets. (See Table 8: Private sources and levels of health care expenditure in the appendix). Vulnerable groups are better served by mechanisms that pool resources, and link payment for services to ability to pay rather than health need.

2.3 Health sector resources

The countries of Anglophone sub-Saharan Africa have very low levels of human resources for health care in comparison with other regions of the world with similar economic performance. The Balkan and central Asian countries, for example, have lower GDP per capita than the richer countries in the Africa region but, as a result of their soviet legacy, have at least twice as many doctors per 1,000 population as South Africa.

Table 1: Comparative health sector resources

Country	Doctors per 1,000 population	Beds per 1,000 population
South Africa	0.06	3.8
Botswana	0.2	1.6
Congo	0.3	3.4
Kenya	0.05	1.6
Nigeria	..	1.7
Tanzania	0.05	0.9
Uganda	0.05	0.9
EU average (1997)*	3.9	5.0
Eastern Europe and FSU	**1.4 to 5.5**	**4 to 90.9**

Sources: World Development Indicators 2000, unless *WHO regional office for Europe,
† World Development Report 1996

2.4 Health status

Governments in the region, along with the international community, are now focusing their attention on three major killers: HIV/AIDS, TB and malaria. Table 2 illustrates the impact of the HIV/AIDS epidemic on the worst affected countries compared to other parts of the world.

Table 2: People living with HIV/AIDS

	People living with HIV/AIDS	
	Adults % of 15-49 years	Children 0-14 years (number in 000s)
Worst affected sub-Saharan Africa		
Zimbabwe	25.06	56
Lesotho	23.57	8
Zambia	19.95	40
South Africa	19.94	95
Namibia	19.54	7
Malawi	15.96	40
Kenya	13.95	78
Sub Saharan Africa region	8.7	1,000
Latin America and Caribbean	0.7	37
Eastern Europe and the CIS	0.2	14
OECD countries	0.3	17

Source: Human Development Report 2001

Overall life expectancy in the region has risen from 45.3 in 1970-75 to 48.8 in 1995-2000. However this masks considerable intra-regional variation with countries hardest hit by the HIV/AIDS epidemic suffering falling life expectancy. Zimbabwe's life expectancy has fallen from 56.0 in 1970-75 to 42.9 in 1995-2000, while Ghana's has risen from 49.9 to 56.3 in the same period.

2.5 Status of social security systems

2.5.1 Formal social security systems

Formal social security systems in sub-Saharan Africa were introduced in the 1960s. These provide statutory cover to approximately 5 to 10 per cent of the working population according to the ILO. By definition, membership of the system is limited to the working elite in salaried, formal employment. Studies reviewing the experience of these schemes over time have shown that expansion of formal social security programmes has tended to be vertical, providing more resources for a limited number of workers, rather than expanding the same benefit package across the population. Development agencies, such as GTZ, have called to widen the social security definition in sub-Saharan Africa to include any mechanism through which workers are compensated in times of need. This would allow for the inclusion of the many informal co-operative systems.

Social security schemes in sub-Saharan Africa are experiencing a rise in premiums. The Kenya National Social Security Security Fund more than doubled both its

employee and employer premiums from Sh80 to Sh200 in December 2001. At the same time the fund announced wide-ranging reforms: management of the fund has been widely criticized by members for inefficiency. The Nigerian Social Insurance Trust Fund has raised its premiums from 7.5% of the worker's gross salary to 10% in September 2001.

Payroll taxes are the primary method of raising revenue for social health insurance. The amount of revenue raised in this way will depend on the number of people in the economy working in the formal sector, and the level of compliance to payroll taxation. Formal social security systems raise revenue in the same way, hence it is useful to look at the strength of these systems in Sub-Saharan Africa to judge the likely success in collecting additional payroll taxes.

Table 3: Social security base

	Total Population (millions) (2000)	Labour Force (millions 1999)	Pension contributors as % of labour force (90s)	Percentage of labour force in the agricultural sector (1990)	Informal sector (% of total GDP)*	Unemplo-yment rate†
Botswana	1.5	1	-	46		21.5
Chad	7.9	4	1.1	83	31	
Congo	3.0	1	5.8	49		
DRC	50.9	21	-			
Equatorial Guinea	0.5	3	1.5	75		
Eritrea	3.7	2	-	80		
Ethiopia	62.9	27	-	86		
Gabon	1.2	1	7.3	52		
Gambia	1.3	1	-	82		
Ghana	19.3	9	7.2	59	31.4	
Guinea-BiSub-	1.2	1	-	85		
Kenya	30.7	15	18	80	18.4	
Lesotho	2.0	1	-	40		40.5
Malawi	11.3	5	-	87		
Namibia	1.8	1	-	49		19.5
Nigeria	113.9	49	1.3	43		
Sierra Leone	4.4	2	-	67		
Somalia	8.8	-	-			
South Africa	43.3	17	-	14	6.9	25.3
Sudan	31.1	12	3.9	69		
Swaziland	0.9	-	-	39		
Uganda	23.3	11	8.2	85		
Tanzania	35.1	17	2	ni	21.5	
Zambia	10.4	4	10.2	75	14.7	
Zimbabwe	12.6	5	-	68		

*Sources: UNDP Human Development Report 2001, World Health Organisation statistics 2001, World Bank Development Indicators 2001 *Estimates compiled by the United Nation Statistics Division, in a report 'The contribution of informal sector to GDP in developing countries' by Jacques Charmes*
†World employment report 2001 – latest figures

2.5.2 The size of the formal and informal sector

Obtaining accurate statistics on the size of various parts of the labour economy is difficult in sub-Saharan Africa. Formal waged employment has been estimated to be 4.2% of the labour force in Tanzania, 9.4% in Kenya, 8.7% in Nigeria and 19.6% in Zimbabwe (ILO World Employment programme 1992). Internationally, these figures for the formal sector compare with an average of 17% in low income countries (share of formal wage employment to total employment), 58% in middle income countries and 84% in high income countries (World Development Report 1995). The public sector is the largest formal sector employer in most sub-Saharan countries.

The informal sector in the sub-Saharan region consists of the agricultural sector, the self employed, and contracted workers who fall outside formal wage systems. In some countries the informal sector accounts for around 30% of GDP with many academics believing this to be an understatement. Agricultural activity dominates the informal labour force, but self-employment is growing fast. It is estimated that this has increased in the region from 29.6% of all non-agricultural labour force in the 1970's to 66.9% in the 1990's (Charmes, 1999) . Rates of self-employment have risen particularly among women.

2.5.3 Numbers contributing to a pension scheme

The figures for the number of pension contributors in Table 3 provide an indication the degree of compliance with a payroll tax into a social health fund, as revenue would be drawn in the same way to a pension. The figures available in sub-Saharan Africa indicate that typically between 1% and 18% of the labour force contribute to a pension scheme. These are very low in comparison with other developing countries that are expanding a role for SHI. In the Balkans, for example, pension contributors as a percentage of the labour force varies from 49% in Macedonia to 86% in Slovenia.

3. REGIONAL OVERVIEW OF THE STATUS OF HEALTH INSURANCE

3.1 Rationale for health insurance

The attractions of health insurance as a mechanism for pooling the cost of health care across communities are strong. In principle, it is a pro-poor financing mechanism unlike the system of user fees and out of pocket payments that characterise much of the current health care financing landscape in Africa. Health insurance covering large population groups is able to pool the risks and costs of health care, reducing the cost of ill health to the individual. Social insurance models add the further attraction of progressive contributions, with the level of premiums determined by ability to pay, as well as unrelated to the risk of ill health.

A key feature of health insurance schemes is the existence of the insurance fund, which is administrated by a 'third party' group, usually separate from either the scheme member, or the health care provider. This makes health insurance an administratively more complex financing option than other forms, such as general taxation.

The argument that SHI will improve equity is twofold: firstly, that where coverage of the scheme is limited, scheme members take on a greater share of their own health costs thus freeing up government resources to devote to vulnerable or disadvantaged groups. Secondly, that if sufficient coverage is achieved, a redistributive mechanism can be developed whereby the insured majority contribute costs to subsidise health services for the uninsured minority.

There are three problems associated with health insurance that can undermine its ability to achieve its financial and social objectives. Briefly described, *moral hazard* describes the tendency for people to use health services more than they would if they were un-insured. *Adverse selection* relates to the common insurance situation where people who know themselves to be at high risk of ill health join a health insurance scheme more readily than those who feel themselves to be healthy and at low risk. And thirdly, *cost escalation* can be exacerbated with health insurance partly by moral hazard and adverse selection, and partly as a consequence of the additional administrative costs imposed by the typical health insurance structure of third party fund management.

Health insurance is by no means a new concept in sub-Saharan Africa. A number of forms of health insurance already exist and these are outlined in section 3.3, however most are on a small scale and do not fully benefit from the advantages of pooling risks and costs.

3.2 Survey of formal health insurance

A 1993 World Bank survey of 37 countries identified 14 with some form of formal health insurance. Figure 2 presents the summary characteristics of these countries.

Figure 2: Profile of Health Insurance Coverage in Sub-Saharan Africa in 1993

Country	Provided by	Groups covered	% Population covered
Burkino Faso	Social Insurance Scheme	Formal sector employees	0.9
Burundi	Mutuelle for Public Servants	Civil Servants and Parastatal Employees	10-15
Cameroon	National Social Insurance Fund	Employees	No account
Cote D'Ivoire	Social Insurance Scheme "Mutuelle" Private Insurers	Employees	No account
Ethiopia	Private Insurers	No account	0.01
Kenya (since 1960's)	National health insurance Fund	Employees and families	Up to 25
Lesotho	Unknown	Employees	No account
Mali	Social Insurance Scheme Company schemes	Employees	About 3
Namibia (since 1980's)	Public schemes Private schemes	Employees and families	20% of formal labour force
Nigeria	Private Insurers	No account	0.4
Senegal	Civil service employers Private Insurers	Employees	13
Tanzania	Private Insurers		1 to 13
Zaire	Employers buy health insurance or Provide Care	Employees	No account
Zambia	State Mining Company provides Care	Employees and families	6
Zimbabwe	Private Insurers	No account	5

Source: Health Insurance in Sub-Saharan Africa: Aims, Findings, Policy Implications. Griffin C, and Shaw, RP (1995). Data derived from Nolan and Turbat (1993), and World Bank Population, Health and Nutrition Sector Reports.

3.3 Types of health insurance for populations in the formal sector

The health insurance market in Africa is diverse. There is wide mixture of profit and not for profit private sector insurance schemes. A summary of the characteristics of different types of health insurance currently operating in the health insurance market in Anglophone sub-Saharan Africa is presented below.

3.3.1 Employer based schemes

In a number of countries[2] formal sector employers over a certain size are required to provide health protection to their employees. South Africa, Malawi and Tanzania also have employer based schemes. In South Africa they cover about 1.8% of the population. Government subsidy has generally been provided in the form of tax breaks on employer contributions. These schemes can be very small, often for all firms employing more than 10 people and may not include health care cover for dependents. The range of different benefit packages reflects the diversity of the firms in existence. There is often no 'third party' in an employer scheme, with employers holding and administering the funds themselves, if funds are formally collected at all. Hence this form of health insurance was excluded from the World Bank's 1993 survey above.

The schemes are unpopular amongst employers, chiefly for their high cost. They are typically small and viability problems are common. A study of these schemes in 1990 found that the schemes averaged around 6% of payroll costs, a survey carried out in Tanzania estimated that larger employers were spending about 11% of payroll on employee health care.

3.3.2 Medical aid societies

These are non profit private schemes prevalent particularly in South Africa and Zimbabwe for both the public and private formal sector. Medical aid societies (MAS) are non profit organisations that collect premiums from business and Government organisations and pay health care providers for services provided to beneficiaries, usually on a fee for service basis. They account for nearly two-thirds of total private sector funding in South Africa, with around 17-18% of the population covered. In Zimbabwe, medical aid societies cover about 7% of the population. They are financed primarily out of contributions from employers and employees, and premiums paid are often tax deductible. In South Africa, they are regulated by the Ministry of Health and tend to reimburse providers on a fee-for-service basis.

Medical Aid Societies have faced rising premiums across sub-Saharan Africa as a result of cost escalation in the health sector. In Zimbabwe, difficulties have been increased as a result of economic poor performance, resulting in fewer companies able to afford membership, and excessive fraudulent claiming by providers exploiting the fee for service arrangements. CIMAS, the largest MAS in Zimbabwe, increased its premiums twice in 2001 by over 50% in total, and is now investigating managed care concepts to reduce cost escalation.

3.3.3 Provident funds

There is little written about these schemes that form part of the social security system in many sub-Saharan Africa countries, and which can provide health benefit. Provident funds can be thought of as alternatives to the non-profit medical schemes found in South Africa and Zimbabwe. The schemes are low cost funds set up by labour unions or industrial councils, and provide mainly primary care services through panels of salaried general practitioners. The schemes consist of mandatory deductions from payroll and, depending on the country, an employer match. Funds

[2]According to the 1993 World Bank survey, these were Benin, Botswana, Burkino Faso, Burundi, Cameroon, Central African Republic, Chad, Congo, Ghana, Mali, Mauretania, Niger, Rwanda, Togo and Zaire

generated are combined and pay out on claims with the benefit package similar to a workman's compensation. Provident funds seem to be less regulated than other private not for profit scheme: for example in South Africa they do not have to report to the Registrar of Medical Schemes. A 1991 review of social security systems in 47 African countries revealed that seven[3] had formal social security systems providing some form of medical benefits.

3.3.4 Compulsory formal health insurance

Kenya was the first sub-Saharan Africa country to put in place a compulsory health insurance scheme covering both government and non-government workers in the formal sector, and their dependents. It is consistent with the basic characteristics of a social health insurance scheme identified in section 1.2. Coverage in the 30 years since its implementation now extends to 25% of the Kenyan population. Officially the scheme is compulsory for all workers, in the formal and informal sectors, earning over 1,000 Ksh (approximately US$19) a month. However it is unclear the extent to which compulsory membership is enforced among non salaried workers.

Compulsory formal health insurance models also exist in Zambia and Namibia but with greatly reduced coverage. These are open to only to a sub-set of government workers: in Zambia, the insurance scheme protects only the employers of the state mining company, and in Namibia civil servants only are included in the scheme. Last year Tanzania introduced compulsory formal health insurance, also with the basic characteristics of a social health insurance scheme. The scheme starts with coverage of civil servants alone but plans to expand to other parts of the formal sector.

Nigeria, Ghana, South Africa, Zimbabwe and Malawi are all considering proposals to introduce a form of compulsory formal health insurance. The extent to which other countries in the region may also be considering this step is unclear.

3.3.5 Private for profit schemes

Private for profit schemes are characterised by risk related premiums. The commercial sector appears to be expanding across Africa, although is still small as a proportion of health care spending. In Nigeria, for example, a private-for-profit health insurance market is developing with approximately 0.3% of the population covered by these schemes, as of July 1995. At that stage, the market consisted of four companies. South Africa has the largest private health insurance market. The sector accounts for 3% of health care spending and covers approximately 2 million people, nearly 5% of the population. These for profit schemes are mainly marketed to individuals, by both life and short-term insurance companies. Some employers are now considering the for profit private provision for their employees as opposed to medical scheme coverage, described in section 3.3.2.

[3] Cote D'Ivoire, Gabon, Cape Verde, Equatorial Guinea, Guinea, Kenya and Senegal

3.4 Types of health insurance for populations working in the informal sector

Given the small proportion of workers in the formal, wage sector a number of insurance schemes have arisen in the informal sector in sub-Saharan Africa. They are typically small, voluntary pre-payment schemes, sometimes initiated by a particular health provider such as the local hospital. Two principal difficulties faced by these kinds of insurance schemes are a low level of administrative capacity in rural communities, and the difficulty in collecting premiums from populations that do not receive a regular income.

There are varying forms of health insurance serving people who work in the informal sector in Africa, often categorised by their degree of organisational complexity. They include the traditional social solidarity networks based on a narrow social group such as a family or a particular ethnic group, and mutual health associations, which are based on non-ethnic groupings such as communities, trade unions, or professional associations. Other types include, 'simple' forms of health insurance such as those organised around a particular health care provider to facilitate cost recovery, and 'complex' forms in which a high degree of community participation is apparent in the management of the scheme.

The most prevalent forms of informal health insurance are the traditional social solidarity networks and the 'simple' forms organised around a particular provider. Much has been written about these schemes in recent years (Bennett et al, 1998, and the Commission on Macroeconomics and Health, 2001). This section, instead, briefly describes two fast growing forms of informal health insurance: mutual health organisations and the 'complex' community based health insurance.

3.4.1 Mutual Health Organisations

Mutual Health Organisations are relatively recent initiatives, but fast growing particularly in West Africa and there are reports that this is also true of Central Africa. Atim (1998) defined them as "a voluntary, non-profit insurance scheme, formed on the basis of an ethic of mutual aid, solidarity and the collective pooling of health risks, in which the members participate effectively in its management and functioning"

MHOs grew out of the need for informal workers to cover themselves against health care costs. Mutual aid organisations, or "mutuelles" in Francophone Africa, are community and employment based schemes catering mainly for self-employed farmers and households working in the informal sector. Most of the schemes are less than 6 years old with scheme coverage ranging from approximately 40 to 360,000 according to a survey in 1998. Between 1997 and 2000 the estimated number of MHOs doubled in the following countries: Benin, Burkino Faso, Cameroon, Cote d'Ivoire, Ghana, Guinea, Senegal.

3.4.2 Community-based health insurance (CBHI) schemes

These schemes are prevalent in Southern and East Africa and are non-profit health financing schemes aimed at the informal sector with members participating in the management. They have the same essential structure as the MHOs in West and Central Africa but are newer and less developed. Musau (1999) defined them as "not-for-profit health insurance schemes for the informal sector, formed on the basis of an ethic of mutual aid and the collective pooling of health risks, in which the members participate in its management". One apparent difference between CBHI

and MHOs is that the impetus for CBHI development is likely to have come from a local hospital to cover a local community rather than from community itself.

The membership size of CBHIs varies greatly. Musau studied 5 schemes in East Africa and found that coverage varied between 78 and 32,000 people, including dependents. CBHI schemes were found to contain a very heterogeneous mix of benefit packages, although at a minimum outpatient care is provided. Inclusion of inpatient care was sometimes up to a pre-defined limit, or restricted to a percentage of costs with one scheme excluding in-patient care entirely. In their treatment of HIV/AIDS two schemes excluded related costs entirely, others pointedly excluded dental and optical services. In all cases the schemes employed active marketing to recruit the target population. The sample of CBHIs that Musau surveyed provides evidence of the importance of community participation. The least successful scheme without year on year growth in revenue, was the only scheme excluding this form of representation.

4. PROPOSALS FOR SOCIAL HEALTH INSURANCE

This section describes the proposals for social health insurance schemes in Anglophone sub-Saharan Africa, alongside the existing schemes in Kenya and Tanzania. Key characteristics of the schemes proposed in South Africa, Nigeria and Zimbabwe are presented in Table 4 overleaf. Following a recent feasibility study, the Government of Uganda has concluded that the country is not ready for SHI and has put aside proposals. Ghana is also developing a scheme but detail was not available to present here. Malawi is examining options for social health insurance and has initiated preparatory studies but concrete design details have yet to be established.

4.1 Objectives of the actual and proposed schemes

High on the policy objectives of all proposed schemes for social health insurance is an expressed goal to contribute to the improved quality and availability of healthcare to the whole population. This is either through universal coverage of all in the insurance scheme, or by 'supporting' the public healthcare system (in the case of South Africa). A number of important design differences remain and these will be discussed in section 4.2 below. At the same time, much of the impetus to introduce some form of social health insurance in the region seem to have emerged from government needs to reassert control on costs.

The goal or principle of universal eligibility is stated for many of the schemes. However, in practice mechanisms to widen coverage to people working in the informal sector are not made explicit. In most cases, planned membership is phased with civil servants and other formal sector workers contributing initially.

4.2 Design of schemes

Table 4: Data about actual or proposed National Health Insurance Schemes in Kenya, Nigeria, South Africa, Tanzania, Zimbabwe

	KENYA	TANZANIA	NIGERIA	SOUTH AFRICA	ZIMBABWE
Date to introduce scheme	Launched in 1967	Started officially in July 2001	Launched October 1997, still unimplemented	Under discussion	Under discussion
Eligibility and basic structure	Universal eligibility Compulsory for all workers earning over KSh 1000 per month Voluntary for non-salaried members	Universal eligibility Will be compulsory for formal sector Initial coverage 53,000 civil servants then will gradually expand to other formal sector employees	Universal eligibility First phase, compulsory for firms with 10 or more workers Coverage of informal sector and rural population to follow	Formal sector employees Two forms of membership – direct & indirect	Universal eligibility. Compulsory for workers in the formal sector, voluntary for informal sector workers
Type of contributions	Employers deduct premium through payroll. Contribution level depends on income - 2% of salary up to a set maximum	6% of employees through payroll deductions. Recommended that 3% each paid by employers and employees., but employer can choose how to split the cost. Fixed inpatient fee up to a maximum of 120 days per household – rate depending on provider	5% of employees salary matched by 10% of salary paid by employer	Not determined	Employee and employer contributions. Payroll tax rate - not yet specified, but to be a proportion of member's earnings plus set rates for dependents.
Population cover of scheme	Estimated in 1992 to cover approx. 7 million people (including dependents). 25% of the population	Will cover spouses and up to 4 other dependents. Entitlement stops 3 months after retirement	6 million people (7%) of population in first phase . Dependents are covered	6.9 million Dependents are covered	
Contribution for the disadvantaged groups (unemployed, disabled, elderly, etc)?					Government will pay a contribution to the Fund to cover the disadvantaged groups.

Principle sources: Collated from a number of sources, including Health insurance: a viable approach to financing health care in Nigeria? Ibukun-Oluwa Ogunbekun. Executive summary. On www.jsi.com/intl/init/inspap.htm World Markets Healthcare. Kenya – medical provision. www.worldmarketsanalysis.com; Kress et al (1998) Social Health Insurance Working Group meeting in Zimbabwe

	KENYA	TANZANIA	NIGERIA	SOUTH AFRICA	ZIMBABWE
How package of care is defined?	Only in-patient medical care. This does not include hotel services in hospitals.	Benefits include inpatient and outpatient care of a fixed, predetermined sum Payment of generic drugs on the national drug list Chronic conditions such as TB requiring prolonged treatment are excluded, cost of tests such as laboratory test, x-ray are excluded	Personal preventive services including immunization, family planning, ante- and post-natal care Ambulatory and in-patient care services Maternity and family planning Diagnostic Drugs Limited dental, optical, prostheses services	A 'minimum package' of essential hospital services	Basic package of health services at primary and secondary facilities – to be defined.
Governance arrangements of the third party fund - accountable to MOH?	Yes, the NHIF is a department of the MoH The Fund has an advisory council of between 7-10 members, all except one appointed by the Minister of Health.	Yes, NHIF established as an executive agency of the government. NHIF board members appointed by Minister of Health but under guidance to include an appropriate range of professional disciplines and stakeholder representatives such as from Trade Unions etc.	Major role planned for private sector HMOs to administer the funds. National Health Insurance Council (NHIC) will regulate at national level	A new SHI Fund will be established, controlled and managed by a new statutory SHI Authority (SHIA). This will be accountable to MoH and Parliament but located outside the civil service. Minister of Health will appoint Board members	Not clear. The NSSA will be responsible to reimbursements to providers. A regulatory agency will be set up and will work with the Medical Aid Societies (MAS).
Contracts with providers? What payment mechanisms?	Retrospective, fixed fee (per diem) reimbursement to either member of provider. Most members allow provider to claim on their behalf.	Providers must be accredited to the scheme. Initially, the insurance fund will pay providers on a fee for service basis. Members can only attend accredited providers. All providers can apply for accreditation.	Private sector HMOs will act as intermediaries between contributers to the fund and with providers. Way in which HMOs will organize providers is not yet clear. HMOs to pay a combination of capitation payment to primary providers, and fee for service reimbursement to individual private practitioners.	No information	Reimbursement on a capitation basis to providers for provision of basic package of benefits
Do beneficiaries access separate facilities to non beneficiaries?	No, the scheme does not own facilities.	No, non beneficiaries may also access accredited providers.	No, non beneficiaries would be able to access same facilities. Beneficiaries can use public facilities, or private facilities for a 10% co-payment.	No information	No, non beneficiaries would be able to access same facilities. Members of the scheme can choose to register with either public or private providers
What is the extent of private insurance? Can people opt out of the scheme if privately insured?	A number of private sector insurance schemes exist covering in-patient care, including the AAR (60,000 members), Medi-plus and Avenue Health	Very limited – employers have prepaid schemes with certain providers to cover own employees.	Private, for profit, health insurance is just developing. Four wholly private companies marketing HI plans exist. Each pool is small, the largest is 18000 people. An estimated 0.03% of population covered by PHI as of July 1995.	Already 17% of population covered by medical schemes, a further 3% by private for profit insurance. Early indications are that people can opt out of SHI if already covered by these	There are a number of Medical Aid Societies (non profit). Government is considering either to allow members to opt out of NHIF if privately insured, or to reduce the contribution to it

4.2.1 Contributions

Where detail is available, revenue for the health fund is indicated to come from a combination of employee and employer payroll contributions, and additional co-payments. Examples of co-payments are those charged for in-patient stay in Tanzania, and for use of private facilities, in Nigeria and Kenya. Only employees contribute to the scheme in Kenya with employers legally obliged to withhold this portion of their salary.

The contribution level in Kenya, at 2%, is within the same range found in CEE and FSU countries where social insurance is a complementary rather than a sole source of financing. The defined contribution rate in Tanzania at 6% is high compared with these figures but still a long way from the average 13% for countries where social health insurance is the pre-dominant form of health care financing. The Nigeria rate, at 15%, is commensurate with these countries. The figure of 6% in Tanzania is based on equal contributions from employee and employer. However, this is not fixed and employers have the right to choose their level of contribution, with the whole 6% liable to be paid from workers salaries. This is presumably to reduce the effects, previously seen with regard to compulsory formal sector insurance, of firms hiring or laying off staff in order to cope with the increased tax burden.

Membership in all proposals is compulsory for the formal sector alone, again with the exception of Kenya where membership is compulsory for all workers earning over 1000Ksh a month (about US$19) regardless of sector. In Tanzania and the proposed schemes, coverage of informal sector workers is envisaged to take place through the extension of voluntary membership. Unfortunately no data has been obtained about the strategies used to expand informal sector membership in Kenya.

4.2.2 Administering the health insurance fund

Administrative and managerial capacity in sub-Saharan countries has long been a major concern of policy makers when considering the feasibility of SHI in these countries. With the exception of Tanzania, there is little information in the country proposals for SHI to clarify how the insurance funds are to be administered, whether in single or multiple funds and the extent to which these will be government functions, contracted out to the private sector or handled by a new or existing parastatal organisation.

From the limited information available, there is no single emerging model for the way in which health funds will be managed in the social health insurance proposals. At one end of the spectrum, Nigeria is planning a major role for private health maintenance organisations (HMOs) to assist in organising health care providers and administrating funds. HMOs are defined as “an institution, company or provident association utilizing its administrative or insurance companies to provide healthcare for its clients through associated health centres”. At the opposite end of the spectrum, the experience in Kenya has been of a large single health fund administrated and essentially controlled by the Ministry of Health. However, most country schemes seem to favour one rather than multiple health funds. The exception is Nigeria, which is envisaging a model that has many funds held and managed by the HMOs. The decisions undergone in Tanzania illustrate well the challenges and choices open to planners in determining choice of fund management (see **Box 1** below)

Box 1: Options for insurance fund management in Tanzania

Until 1998, the insurance market in Tanzania under monopoly of the National Insurance Corporation (NIC), a parastatal entity. Planners of the social health insurance fund faced four options:

? awarding management of the fund to the NIC
? insuring directly through the Ministry of Health
? creating a new parastatal
? awarding management to one or more private non-profit companies

Use of the NIC was rejected on the grounds that policy premiums would be set too high, and because the organisation had no experience of price negotiation with providers. Use of one or more non-profit companies was expected to lead to a domination of the board(s) management by employers, and therefore a continuation of existing incentives to neglect the needs of dependents. Direct management by the Ministry of Health was rejected due to the lack of insurance expertise and the salary controls that would prohibit recruitment of managerial talent.

In creating a new parastatal, the planners in Tanzania further rejected the possibility of linking the new fund to an existing non-commercial parastatal, such as the social security, National Provident Fund, on the grounds that this organisation was widely perceived to be inefficient. The planners settled on the creation of new parastatal organisation, linked to the Minister of Health, rather than the Ministry of Labour to which social security parastatals normally affiliate, with board representatives from a cross section of government and civil society bodies.

Source: Presentation given by Tanzanian Government to a seminar on Social Health Insurance in Cape Town

The Kenya experience highlights the importance of creating an appropriate legislative and incentive environment to ensure that the insurance fund is managed efficiently. The prime function of the Kenya National Health Insurance Fund (NHIF), outlined in its act of creation, was to collect revenue, rather than to finance the provision of the services to members. Hence it has concentrated on the collection of funds, at the expense of ensuring efficient and appropriate disbursements, and by 1992/93 the fund had a considerable surplus. This was partly due to a change in insurance contributions, from a flat fee to a sliding scale based on income, which saw membership contributions grow by 736% between 1981 and 1991. With the surplus fund, pressure was placed on the NHIF to reduce contributions or to improve services. One response from the Fund was to increase the number of private facilities eligible for reimbursement. As a result, within a year, contribution levels stopped growing and reimbursements to private health facilities increased to such an extent that the NHIF faced insolvency.

This form of inefficiency in fund management is associated in Kenya, and elsewhere, with the funds governance structure, and the need to ensure that appropriate incentives are place for the administrators to act in the best interest of the scheme membership. In addition to recruiting the right skills, evidence suggests that board membership must include representation from people covered by the insurance scheme.

4.2.3 Population coverage

Initial coverage of proposed schemes, where defined, is a sub-group of the formal labour force, for example, civil servants in Tanzania and employees of firms with at least 10 people in Nigeria. Most schemes indicate explicitly that dependents will be covered.

All schemes propose a phased approach to extending coverage theoretically to the whole population, according to expressed principles of universal eligibility. The experience in Kenya shows that coverage can grow over time, but that this is extremely slow. During the first 30 years of implementation, social health insurance in Kenya grew from covering 60,000 people in 1967/68 to 500,000 in 1985/86, to about 1.4 million members in 1992/93. Including dependents this now accounts for 25% of the population.

4.2.4 Social insurance benefits

The package of health benefits being offered by the countries proposing social health insurance is surprisingly varied. Many countries include a combination of in-patient and out-patient care, but Nigeria also includes preventive services. All proposals seem to be offering one standardised package of benefits, which will help to reduce administrative complexity.

But what is an appropriate package of services? One approach is to ensure that the scheme is self sufficient, and therefore to define a package of health services that the level of premiums can afford. A further consideration is to choose services that are not likely to become over-provided to members as a result of moral hazard. One way to do this is to focus on relatively high cost, low frequency events such as are provided in an inpatient setting. This would also make the scheme administratively less complex by reducing the number of providers that the insurance fund must contract with. An alternative way may be to ensure that non-urgent, ambulatory services still carry some form of co-payment.

However concentrating on rare, expensive health care treatments is likely to be political unpopular as members will still face out-of-pocket payments for ambulatory services and drug purchasing. There is likely to be little incentive for poorer groups to join the scheme if they cannot see it reducing their cost of seeking health care in the same way.

4.2.5 Payment mechanisms

A number of different payment systems are under discussion in the countries proposing to introduce a social health insurance scheme. Zimbabwe is proposing a capitation payment mechanism to providers. The Nigeria scheme proposes a mix: capitation payment to primary facilities for most services, and reimbursement on a fee for service basis to providers for long hospital stays and treatment in tertiary care centres. A fee for service mechanism would also be used to reimburse sole private practitioners, a large provider group in Nigeria. In Kenya, providers normally reimburse on behalf of patients on a fee for service basis, and Tanzania has also implemented their insurance scheme with this form of reimbursement.

Evidence from Kenya indicates that fee for service mechanisms are likely to require administrative capacity within hospitals and clinics to claim reimbursement. A number

of studies in Kenya have shown that claiming efficiency varies greatly between public and private sector providers. Government hospitals claim between 30% and 60% of the actual reimbursement due to them, private providers, particularly those catering to wealthier Kenyans, claim at around 98%. One study estimated that the government lost revenue of US$4.2 million in 1993/94 as a result. It was calculated that if claiming efficiency in governmental facilities were to reach 100%, this would increase the entire MoH primary care line item budget by 25%. International experience has shown fee-for-service mechanisms to be a major cause of cost escalation.

4.3 Handling of HIV/AIDS and other chronic conditions

There is relatively little written into the social health insurance proposals about the how the schemes will treat HIV/AIDS related conditions. The Lancet recently reported that people with “high cost illnesses” such as HIV/AIDS would not be eligible to join the proposed Nigeria Health Insurance Plan. The newly implemented Tanzania scheme excludes treatment for chronic diseases: the range of conditions under this term is not identified although tuberculosis is specifically mentioned. As expected in the private-for-profit insurance sector, in South Africa, individual companies are offering lower premiums to people with low HIV/AIDS risk. This is likely to force other companies along the same path to remain competitive. A number of community based health insurance schemes surveyed by Musau excluded treatment for HIV/AIDS related conditions.

There is no question that HIV/AIDS will have a major impact on health costs for those in formal sector employment. A study completed by the ILO in 1995 examined the economic impact of HIV/AIDS on occupational groups by interviewing the leadership of eight organizations in Tanzania. It found that medical costs for the Tanzania-Zambia Railway Authority workers associated with AIDS-related diseases increased over a one-year timeframe from Tsh2.8 million in January to Tsh4.6 million in December, a 63% increase. Overall, the study estimated that the organizations studied were losing employees at the rate of 0.5-1.5 percent per year due to AIDS-related deaths.

5. EQUITY IMPLICATIONS

5.1 Are additional resources likely to be generated for the poor?

There are few formal government statistics available from sub-Saharan countries to accurately estimate the expected additional revenue from the proposed social health insurance schemes. Where costing analysis has been carried out, the objective has been for the scheme is to break even, rather than introduce any form of cross subsidy to the population not covered by the scheme. There is a regional variation in the overall population proportion of those contributing to the scheme: formal waged employment as a percentage of the total population varies from approximately 1% in Tanzania to 11% in South Africa. Figures for pension compliance in section 2 indicate that funds may actually be collected from a sub-set of this group. The ability of such a low proportion to make any discernable impact on national resource levels is doubtful. Only Zimbabwe proposes a government contribution to the fund to cover disadvantaged groups.

For the non-insured population, the health system remains the network of government facilities and private providers. Their access to health services will remain a function both of ability to pay, and proximity to a health facility. As a group, women are particularly disadvantaged by insurance schemes that target the formal sector as they tend to be self employed.

Formal sector health insurance schemes in Africa (and elsewhere) have been criticised on equity grounds for the tax relief given to contributions made under the schemes. It amounts, in effect, to a government subsidy to the formal sector and a loss of government tax revenue that could be used to finance public health facilities. Whether a tax-deductible status will be conferred on contributions made to the proposed social health insurance schemes is unclear. However the government is the dominant employer in the formal sector in most Sub-saharan Africa countries. The government will therefore make the largest employer contribution into the insurance fund. Again, this represents a significant public expenditure directed towards a small sub-group of the population, and is unlikely to have a benefit for the poorest groups in society.

5.2 Impact on health resources

Table 5 highlights some evidence from published studies that show a skewed resource distribution in countries with a compulsory formal sector schemes. Findings from Zambia and Burundi highlight the extent to which resources can be distorted in favour of small sub-groups of the population. The extent to which these distortions pre-date the health insurance scheme, or have been influenced by it is not clear. In all societies, regardless of financing arrangement, the well off are able to dominate access to health services. The examples from Kenya and Zaire, however, provide some indication of one way in which the health insurance structure can exacerbate existing inequity: through the greater use of health facilities by those insured, and through varying ability of providers to administrate the reimbursement mechanism.

Table 5: Some evidence for a skewed resource distribution in countries with compulsory formal sector health insurance schemes

Country/scheme	Finding
Zambia – Consolidated Copper Mines formal insurance scheme	Scheme covers 6.1% of the total Zambian population but receives 24% of the country's health expenditure (Vogel, 1993)
Burundi – compulsory insurance scheme for civil servants, members of armed forces, parastatal employees	Public expenditure in 1991 on services consumed by members of the scheme, comprising 6% of the country's population came to 30% of total government expenditure (World Bank 1993)
Kenya – National Health Insurance Fund	Prolonged hospitals stays were common among beneficiaries of the Fund (La Forgia et al, 1993)
Zaire – Bwamanda hospital	Hospitalisation rates among beneficiaries were 2-7 times higher than non-beneficiaries (La Forgia et al, 1993)
South Africa	Medical aid scheme members visited a general practitioner 5 to 6 times a year on average, whilst residents of the poorest districts made an average of one visit to outpatient services in public facilities per person (Bloom and McIntyre, 1998)
Kenya – NHIF	Facilities frequented by lower income members, only received claims equal to 1.4% of all claims paid, while more costly facilities, catering to wealthier Kenyans, received 98.6% of all reimbursements (Akumu, 1992)

The WHO has documented experiences from countries, such as the Czech Republic and Thailand, which indicate that formal sector employees and civil servants are active in trying to expand their benefits in formal insurance programmes.

Table 5 provides some instances of this in formal health insurance programmes in sub-Saharan Africa.

The above table highlights the way in which health insurance schemes have a tendency to attract health resources towards them. The insured choose to use health facilities that are relatively well staff and well equipped, these providers receive payment from the health fund and are able to pay staff on time, purchase more equipment to meet demand and attract more staff. There is thus the risk of increasing inequity in provision as resources are drawn towards where the insured live.

6. CONCLUSIONS

It is difficult to draw firm conclusions on individual social health insurance proposals in a regionally focused paper. A number of models for the design of the insurance fund are emerging. This is appropriate given the different national contexts, and the unlikelihood that one model will fit all. In the English speaking countries of sub-Saharan Africa there is significant variation in resource levels, and in their institutional and administrative capacity. However there are a number of characteristics common to the regions that are likely to influence the success of social health insurance.

Funds derived from the proposed social health insurance schemes look unlikely to finance health benefits for the whole population. All schemes are planning to deduct contributions for the social health insurance fund from payroll taxes, with additional co-payments for 'extra' or non health benefits. As we have seen, the payroll tax base is weak in sub-Saharan Africa covering a generally small proportion of the overall population. Other taxes, such as social security, that draw from this base are increasing their premiums. Health planners do not pretend that funds raised through the social health insurance proposals will be enough to cover health services for the whole population. However, there may now be limited "room" to extract further taxes to cover new health benefits to members of the scheme. A large part of the financing of the health sector in sub-Saharan Africa looks set to remain dependent on general government taxation and through private out-of-pocket payments.

There may be potential for the proposed social health insurance schemes to reduce the costs of health care benefits to the formal sector in countries where a diverse and fragmented market for private health insurance exists. The proposals aim to increase the size of the insured risk pools substantially, from small, expensive employer schemes to initial schemes covering several thousand people, for example 53,000 people in Tanzania. If made compulsory for all, regardless of pre-existing private health insurance there is the potential to reduce administrative costs if the multiple insurance funds covering small groups are replaced by one large fund.

Coverage of the whole population will depend on finding strategies to expand into the informal sector. Most countries of sub-Saharan Africa have very large informal sectors that include agricultural workers and the self-employed. Revenue cannot be collected from these workers using payroll taxation. Ways to include the major proportion of the population must be found if any equity gains are to be made. This requires a greater understanding of the way that formal schemes can be extended to include informal groups. The inclusion of large numbers of informal sector workers into a compulsory social insurance scheme has no precedent in sub-saharan Africa. To date, the principal strategy discussed in all countries is that of raising user fees to encourage voluntary membership by the informal sector.

Not all features of the proposed schemes are consistent with national policy objectives. Cost control in the health sector is a major concern of most sub-Saharan countries. However, the proposed social health insurance schemes often include design features that have been associated with increasing health care costs, such as the fee-for-service payment mechanism to providers, and the inclusion of ambulatory services as part of the benefit package. In particular, fee-for-service payments have been shown to provide an incentive to health care facilities to over provide certain services.

The extent of any efficiency gains will depend on the ability of these schemes to successfully manage and administrate their funds. The evidence from existing sub-Saharan social security systems is that administrative capacity is low, even in parastatals, and that these organizations are poorly perceived. Skills for administration are higher in the private sector, but international experience indicates that these groups must be well regulated to ensure that efficiency is greater than in the public sector. The challenge for sub-Saharan Africa may be to find a way to place an insurance fund effectively between government regulation and private sector implementation.

Health insurance schemes may have a tendency to attract resources towards them, and away from other parts of the health system. It is important to consider the whole system for health and to look at the impact on the health services that remain outside the health insurance scheme. In sub-Saharan Africa these are likely to be rural facilities, or urban facilities catering for those in informal employment. Taking a whole system approach, any flow of health resources towards services that form part of the insurance scheme represents a flow away from excluded health services. Conversely, there may be potential for a new income stream from insurance contributions to address existing inequity through ensuring that facilities used by both excluded and covered populations are supported. Design features that address these issues need to be investigated.

There is limited detail in the large proposed schemes about how they intent to treat HIV/AIDS, TB or other chronic diseases. This may be positive and imply that these *conditions are not being targeted for exclusion.* However in Nigeria at least, there are plans to exclude HIV/AIDS infected individuals. Whilst this is understandable in thinking about the financial viability of the insurance scheme, it conflicts with the social objectives of health protection and leaves the public sector funded services to cope with these patients. Modelling projections of revenues will need to factor in the impact of these diseases, particularly HIV/AIDS, both in terms of lost revenue, through the loss of the formal workforce, and the increased reimbursement for related ill health. Decisions to exclude the provision of anti-retroviral drugs may become hard to sustain against pressure from the educated, vocal and influential population group that will comprise membership of any compulsory health insurance scheme in the formal sector.

7. APPENDIX

Table 6: Macroeconomic indicators for Sub-saharan Africa

	GDP (US$ bi.) 1999	Total Population (millions) (2000)	GDP Per Capita (US$) 1999	Gini Index 1999	Total Expenditure on Health as a % of GDP (1998)
Botswana	6	1.5	6,872	..	3.5
Chad	1.5	7.9	850	..	2.9
Congo	2.2	3.0	727	..	3.0
Democratic Republic of the Congo	5.6	50.9	801	..	1.7
Equatorial Guinea	0.7	0.5	4,676	..	4.2
Eritrea	0.6	3.7	880	..	5.4
Ethiopia	6.4	62.9	628	40	5.2
Gabon	4.4	1.2	6,024	..	3.0
Gambia	0.4	1.3	1,580	47.8	3.2
Ghana	7.8	19.3	1,881	39.6	4.3
Guinea-Bissau	0.2	1.2	678	56.2	4.0
Kenya	10.6	30.7	1,022	44.5	7.6
Lesotho	0.9	2.0	1,854	56	6.0
Malawi	1.8	11.3	586	..	7.2
Namibia	3.1	1.8	5,468	..	8.2
Nigeria	35	113.9	853	50.6	2.1
Sierra Leone	0.7	4.4	448	..	2.8
Somalia	..	8.8	..	..	2.0
South Africa	131.1	43.3	8,908	59.3	8.7
Sudan	9.7	31.1	664	..	4.2
Swaziland	1.2	0.9	3,987	60.9	3.7
Uganda	6.4	23.3	1,167	37.4	3.5
United Republic of Tanzania	8.8	35.1	501	38.2	4.9
Zambia	3.1	10.4	756	52.6	5.6
Zimbabwe	5.6	12.6	2,876	56.8	10.8

Sources: Human Development Report 2001, and WHO National Health Accounts, estimates for 1997 and 1998

Table 7: Government and external sources of health care expenditure

Member State	Public expenditure on health as % of total expenditure on health	Social security expenditure on health as % of public expenditure on health	Tax funded expenditure on health as % of public expenditure on health	External resources for health as % of public expenditure on health	Per capita public expenditure on health in international dollars
Botswana	70.7	0	98.9	1.1	147
Chad	78.6	0	65.7	34.3	15
Congo	67.2	0	80.3	19.7	33
Democratic Republic of the Congo	74.1	0	92.2	7.8	34
Equatorial Guinea	59.4	0	81.3	18.7	72
Eritrea	66.1	0	82.6	17.4	31
Ethiopia	46.6	0	85.9	14.1	13
Gabon	66.7	0	92.9	7.1	121
Gambia	78.2	0	82.9	17.1	38
Ghana	54.0	0	77.3	22.7	52
Guinea-Bissau	65.1	0	76.9	23.1	18
Kenya	28.1	13.6	59.9	26.5	29
Lesotho	78.3	0	82.00	18.0	60
Malawi	50.3	0	67.5	32.5	17
Namibia	54.3	0	93.2	6.8	183
Nigeria	39.4	0	60.5	39.5	7
Sierra Leone	40.4	0	78.6	21.4	9
Somalia	62.4	0	81.5	18.5	7
South Africa	43.6	0	99.7	0.3	231
Sudan	24.1	0	99.2	0.8	14
Swaziland	72.0	0	76.7	23.3	120
Uganda	38.2	0	51.2	48.8	11
United Republic of Tanzania	48.5	0	56.1	43.9	10
Zambia	57.3	0	57.0	43.0	26
Zimbabwe	55.9	0	69.2	30.8	135

Source: WHO national health accounts statistics 2001

Table 8: Private sources and levels of health care expenditure

Member State	Private expenditure on health as % of total expenditure on health	Private insurance on health as % of private expenditure on health	Out-of-pocket disbursements for health as % of private expenditure on health	% of MOH recurrent budget covered by user fees (year data obtained)	Out of pocket disbursements as % of total expenditure on health
Botswana	29.3	48.1	41.3	2 (1983)	12.1
Chad	21.4	0.0	100		21.4
Congo	32.8	0.0	100		32.8
Democratic Republic of	25.9	0.0	100		25.9
Equatorial Guinea	40.6	0.0	100		40.6
Eritrea	33.9	0.0	100		33.9
Ethiopia	53.4	0.0	86.1	15-20 (1985)	46.0
Gabon	33.3	0.0	100		33.3
Gambia	21.8	0.0	100		21.8
Ghana	46	0.0	100	5-6 (1991)	46.0
Guinea-Bissau	34.9	0.0	100		34.9
Kenya	71.9	4.5	74.3	2 (1984)	53.4
Lesotho	21.7	0.0	100	9 (1992)	21.7
Malawi	49.7	2.2	34.1	3.3 (1983)	16.9
Namibia	45.7	91.3	2.9		1.3
Nigeria	60.6	…	100		60.6
Sierra Leone	59.6	0.0	100		59.6
Somalia	37.6	0.0	100		37.6
South Africa	56.4	75.8	22.4		12.6
Sudan	75.9	0.0	100		75.9
Suriname	37.8	…	100		37.8
Swaziland	28.0	0.0	100	2.1 (1984)	28.0
Uganda	61.8	0.5	54.2		33.5
United Republic of	51.5	0.0	86.5		44.5
Zambia	42.7	0.0	74.7		31.9
Zimbabwe	44.1	16.4	75.2	3.5 (1992)	33.2

Source: WHO National Health Account statistics 2001

Table 9: Health personnel resources in Anglophone Sub-Saharan Africa countries

	Number per 100,000 population (year)							
Country	**Doctors**		**Nurses**		**Midwives**		**Dentists**	
Botswana	23.8	1994	219.1	1994	.0	1994	2.2	1994
Chad	3.3	1994	14.7	1994	2.3	1994	.2	1994
Congo	25.1	1995	185.1	1995	24.9	1995	…	…
Democratic Republic of the Congo	6.9	1996	44.2	1996	…	…	1.1	1996
Equatorial Guinea	24.6	1996	39.5	1996	2.2	1996	1.0	1996
Eritrea	3.0	1996	16.0	1996	2.2	1996	.1	1996
Ethiopia	…	…	…	…	…	…	…	…
Gabon	…	…	…	…	…	…	…	…
Gambia	3.5	1997	12.5	1997	8.2	1997	.5	1997
Ghana	6.2	1996	72.0	1996	53.2	1996	.2	1996
Guinea-Bissau	16.6	1996	109.4	1996	12.7	1996	.9	1996
Kenya	13.2	1995	90.1	1995	…	…	2.2	1995
Lesotho	5.4	1995	60.1	1995	47.0	1995	.5	1995
Malawi	…	…	…	…	…	…	…	…
Namibia	29.5	1997	168.0	1997	116.5	1997	4.0	1997
Nigeria	18.5	1992	66.1	1992	52.4	1992	2.6	1992
Sierra Leone	7.3	1996	33.0	1996	4.7	1996	.4	1996
Somalia	4.0	1997	20.0	1997	..	..	.2	1997
South Africa	56.3	1996	471.8	1996	…	…	17.8	1996
Sudan	9.0	1996	58.0	1996	..	..	.7	1996
Swaziland	15.1	1996	…	…	…	…	…	…
Uganda	…	…	18.7	1996	13.6	1996	.2	1996
United Republic of Tanzania	4.1	1995	85.2	1995	44.8	1995	.7	1995
Zambia	6.9	1995	113.1	1995	…	…	…	…
Zimbabwe	13.9	1995	128.7	1995	28.1	1995	1.3	1995

Table 10: Domestic health expenditure breakdown between public and private sectors

Country	Public health expenditure as a % of GDP	Private health expenditure as a % of GDP	Per capita health expenditure (PPP US$)
South Africa	3.3	3.8	623
Gabon	2.1	1.0	198
Namibia	4.1	3.7	416
Swaziland	2.7	1.0	148
Botswana	2.5	1.6	267
Ghana	1.8	2.9	85
Kenya	2.4	5.4	79
Congo	2.0	3.8	46
Nigeria	0.8	2.0	23
Tanzania	1.3	1.8	15
Uganda	1.9	4.1	65
Zambia	3.6	3.4	52
Gambia	1.9	1.9	56
Malawi	2.8	3.5	36
Chad	2.3	0.6	25
Ethiopia	1.7	2.4	25
Sierra Leone	0.9	4.5	27

Source: Human Development Report 2001, based on 1998 figures

8. REFERENCES

1. Eichler, R. and E. Lewis, *Social insurance assessment tool*, Family planning management development project (FPMD).
2. Normand, C. and A. Weber, *Social health insurance: a guidebook for planning*. 1994, Geneva: World Health Organisation
3. Conn, C.P. and V. Walford, *An introduction to health insurance in low income countries*. 1998, Institute for Health Sector Development: London.
4. Bennett, S. and L. Gilson, *Health financing: designing and implementing pro-poor policies*. 2002, DFID Health Systems Resource Centre:
5. *Social health insurance working group meeting in Zimbabwe*. in *Working group meeting in Zimbabwe*. 1998. Mutare, Zimbabwe.
6. Odutola, A.B., *Reform implications of Nigeria's National Health Insurance Scheme*, in *Text of a paper delivered at the International Conference on "Healthcare financing in low income Asian and African countries"*. 2001, Centre for Health Policy and Strategic Studies
7. Akumu, O., *Some Issues of Class Equity at the National Hospital Insurance Fund*, July 3, 1992. A paper prepared by the Ministry of Health as part of the Kenya Health Care Financing project, Management Sciences for Health.
8. *Chapter 2: The demand for private health care*, in *Private Health Care in South Africa (Technical report to Chapter 13 of 1998 South Africa Health Review)*. 1998, The Centre for Health Policy
9. *Kenya - Medical Provision*. 2001, World Markets Healthcare
10. Kraushaar, D., *Assessing proposals for National Health Insurance: Zimbabwe, Tanzania, South Africa, Kenya*. 1997.
11. Kraushaar, D., *The Kenya National hospital insurance fund: what can we learn from thirty years' experience?* February 1997, Ministry of Health, Kenya.
12. Mapunda, M., *Social health insurance issues of management body and legislation needs: The experience of Tanzania.* August 2000: Prepared for the Senior Policy Seminar on Social Health Insurance (University of Cape Town).
13. *Proposed national health insurance scheme for formal sector employees: implementation framework*. December 1997, Health Insurance Implementation Team. Ministry of Health, Tanzania.
14. *Issues Paper: Options for expanding health insurance schemes in Malawi*. October 2001, Ministry of Health Planning (Malawi)
15. *A social health insurance scheme for South Africa: policy document*. September 1997, Department of Health (South Africa)
16. McIntyre, D., *Social Health Insurance: Is it feasible and desirable for South Africa*. 1997, Health Economics Unit. Department of Public Health. University of Cape Town
17. McIntyre, D., et al., *Equity of Health Sector Revenue Generation and Allocation: A South African Case Study*. August 1998, Partnerships for Health Reform. Abt Associates: Bethesda.
18. Bloom, G. and D. McIntyre, *Towards equity in health in an unequal society.* Social Science and Medicine, 1998. **47**(10): p. 1529-1538.
19. Doherty, J., D. McIntyre, and L. Gilson, *Chapter 7: Social health insurance*, in *South African health review 2000*. 2000: Durban.
20. Huff-Rousselle, M. and J. Akuamoah-Boateng, *The first private sector health insurance company in Ghana.* International Journal of Health Planning and Management, 1998. **13**: p. 165-75.
21. Soderlund, N., G. Schierhout, and A. van der Heever, *Chapter 13: Private health sector care*, in *South Africa Health Review*. 1998,

22. *Overview Paper: Implementing health financing reforms in Southern Africa*, in *Sustainable health care financing in Southern Africa. Papers from an EDI health policy seminar held in Johannesberg, South Africa*, A. Beattie, et al., Editors. June 1996, EDI
23. Griffin, C.C. and R.P. Shaw, *Chapter 8: Health insurance in sub-saharan Africa: aims, findings, policy implications*, in *Financing health services through user fees and insurance: case studies from sub-saharan Africa*, R.P. Shaw and M. Ainsworth, Editors. 1995. p. 143-167.
24. Kutzin, J., *Health insurance for the formal sector in Africa: Yes, but...* in *Sustainable health care financing in Southern Africa*, A. Beattie, Editor. 1996, Economic Development Institute of the World Bank:
25. Atim, C., *The contribution of Mutual Health Organizations to financing, delivery and access to health care in west and central Africa: a synthesis of research in nine countries*. May 1998, Partnerships for Health Reform. Technical Paper No. 19. ABT Associates: Bethesda.
26. Musau, S., *Community-Based health insurance: experiences and lessons learned from East and Southern Africa*. August 1999, Partnerships for Health Reform. Technical Paper No. 34. ABT Associates: Bethesda.
27. Abel-Smith, B., *Health insurance in developing countries: lessons from experience.* Health Policy and Planning, 1992. **7**(3): p. 215-226.
28. Costa, J., *The resurgence of Social Health Insurance in the Balkans: Lessons from the Federal Republic of Yugoslavia*. 2002, DFID Health Systems Resource Centre
29. Kutzin, J. and H. Barnum, *Institutional features of health insurance programs and their effects on developing country health systems.* International Journal of Health Planning and Management, 1992. **70**: p. 51-72.
30. La Forgia, G. and C. Griffin, *Health insurance in Practice: Fifteen case studies from developing countries. Smaller applied research. Health Financing and Sustainability Project*. 1993, Abt Associates Inc: Bethesda, MD.
31. Preker, A., M. Jakab, and M. Schneider, *Health financing reforms in central and eastern Europe and the former Soviet Union*, in *Funding health care: options for Europe*. Unpublished.
32. Normand, C., *Using social health insurance to meet policy goals.* Social Science and Medicine, 1999. **48**: p. 865-869.
33. Bennett, S., A. Creese, and R. Monasch, *Health insurance schemes for people outside formal sector employment*. 1998, World Health Organisation.
34. Arhin-Tenkorang, D., *Health insurance for the informal sector in Africa: design features, risk protection and resource mobilization*. 2001, Commission on Macroeconomics and Health