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## AN OVERVIEW OF HEALTH FINANCING PATTERNS AND THE WAY FORWARD IN THE WHO AFRICAN REGION

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## AN OVERVIEW OF HEALTH FINANCING PATTERNS AND THE WAY FORWARD IN THE WHO AFRICAN REGION

J.M. KIRIGIA, A. PREKER, G. CARRIN, C. MWIKISA and A.J. DIARRA-NAMA

### ABSTRACT

**Background:** The way a health system is financed affects the performance of its other functions of stewardship, input (or resource) creation and services provision, and ultimately, the achievement of health system goals of health improvement (or maintenance), responsiveness to people's non-medical expectations and fair financial contributions.

**Objectives:** To analyse the changes between 1998 and 2002, in health financing from various sources; and to propose ways of improving the performance of health financing function in the WHO African Region.

**Design:** A retrospective analysis of data obtained from the World Health Report, 2005.

**Methods:** The analysis reported in this paper is based on the National Health Accounts (NHA) data for the 46 WHO Member States in the African Region. The data were obtained from the World Health Report 2005. It consisted of information on: levels of per capita expenditure on health; total expenditure on health as a percentage of gross domestic product (GDP); general government expenditure on health as a percentage of total expenditure on health; private expenditure on health as a percentage of total expenditure on health; general government expenditure on health as a percentage of total government expenditure; external expenditure as a percentage of total expenditure on health; social security expenditure on health as a percentage of general government expenditure on health; out-of-pocket expenditure as a percentage of private expenditure on health; and private prepaid plans as a percentage of private expenditure on health. The analysis was done using Lotus SmartSuite software.

**Results:** The analysis revealed that: fifteen countries spent less than 4.5% of their GDP on health; forty four countries spent less than 15% of their national annual budget on health; sixty three percent of the governments in the Region spent less than US\$10 per person per year; fifty per cent of the total expenditure on health in 24 countries came from government sources; prepaid health financing mechanisms cover only a small proportion of populations in the Region; private spending constituted over 40% of the total expenditure on health in 31; direct out-of-pocket expenditures constituted over 50% of the private health expenditure in 38 countries.

**Conclusion:** Every country needs to develop clear pro-poor health financing policy and a comprehensive health financing strategic plan with a clear roadmap of how it plans to transit from the current health financing state dominated by inequitable, catastrophic and impoverishing direct out-of-pocket payments to a visionary scenario of universal coverage. The strategic plan should also contain policy interventions aimed at strengthening health financing function, e.g.

strengthening of health sector advocacy and health financing capacities, health economics evidence generation and utilisation in decision-making, making better use of available and expected resources, monitoring of equity in financing, strengthening of the exemption mechanisms, managed removal of direct out-of-pocket payments (for countries that choose to), and improving country-led sectoral coordination mechanisms (e.g. Sector Wide Approaches).

## INTRODUCTION

On 8<sup>th</sup> September 2000 the United Nations (UN) General Assembly, consisting of 191 UN Member States, adopted the United Nations Millennium Declaration. In that Declaration they resolved to create an environment – at the national and global levels alike – which is conducive to development and to the elimination of poverty. By year 2015, all Member States pledged to meet eight Millennium Development Goals (MDGs): eradicate extreme poverty and hunger; achieve universal primary education; promote gender equality and empower women; reduce child mortality; improve maternal health; combat HIV/AIDS, malaria and other diseases; ensure environmental sustainability; develop global partnership for development (1).

Cognisant of the fact that three of the above mentioned MDGs were health goals, the Heads of States and Governments of the Organisation of African Unity (OAU) met in Abuja, Nigeria from 26-27 April 2001, at a Special Summit devoted specifically to address the exceptional challenges of HIV/AIDS, tuberculosis and other related infectious diseases. The OAU undertook a critical review and assessment of the situation and the consequences of these diseases in Africa, and reflected on new ways and means whereby Heads of States could take the lead in strengthening current successful interventions and developing new and more appropriate policies, practical strategies, effective implementation mechanisms and concrete monitoring structures at national, regional and continental levels with a view to ensuring adequate and effective control of HIV/AIDS, tuberculosis and other related infectious diseases (2).

In the Abuja Declaration (2), Heads of States committed themselves to take all necessary measures to ensure that the needed resources are made available from all sources and that they are efficiently and effectively utilised. In addition, they pledged to set a target of allocating at least 15% of their annual budget to the improvement of the

health sector. They also pledged to make available the necessary resources for a comprehensive multi-sectoral response towards the achievement of the health MDGs. In addition, they called upon donor countries to complement their resource mobilisation efforts to tackle the MDG related health conditions. They urged those countries to, among others, fulfil the yet to be met target of allocating 0.7% of their GNP as official development assistance to developing countries (3).

In the Maputo Declaration (4), the Heads of States reaffirmed their commitment to achieving the goals they set themselves concerning health sector financing in their States and recommitted themselves to meet the target of 15% of national budget to be allocated to health. They reiterated their readiness to mobilise more internal resources, in partnership with the private sector, civil society and all other stakeholders, for strengthening, adequately equipping and financing health systems to facilitate scale up health interventions related to MDGs.

We concur with the African Heads of States that since the African Region has the highest burden of disease and lowest average life expectancy in the world, achieving better health and protecting people against the impoverishing effects of illness requires both more financial resources (for strengthening performance of health systems and programmes), equitable and efficient spending.

While more financial resources are indeed needed, there is growing evidence that health systems with very similar levels of health expenditure per capita show wide variations in population health outcomes partly due to technical and allocative inefficiencies (5). Data Envelopment Analysis (DEA) studies undertaken among health facilities in Angola (6), Ghana (7), Kenya (8,9), Namibia (10), Sierra Leone (11), South Africa (12-14) and Zambia (15,16) have revealed significant levels of technical inefficiencies in the use of various health resources. But part can also be explained by a variety of related factors, including poor governance, weak management capacity,

dysfunctional organisations and institutions, and absolute resource shortages in terms of financing, human resources (in some health facilities), drugs and other critical input to a functional health system.

The objectives of this paper were two fold: (i) analyse the changes that have occurred in health financing from various sources over the period 1998 to 2002; and (ii) propose policy interventions that could be implemented to improve health systems performance of the health financing function in the WHO African Region.

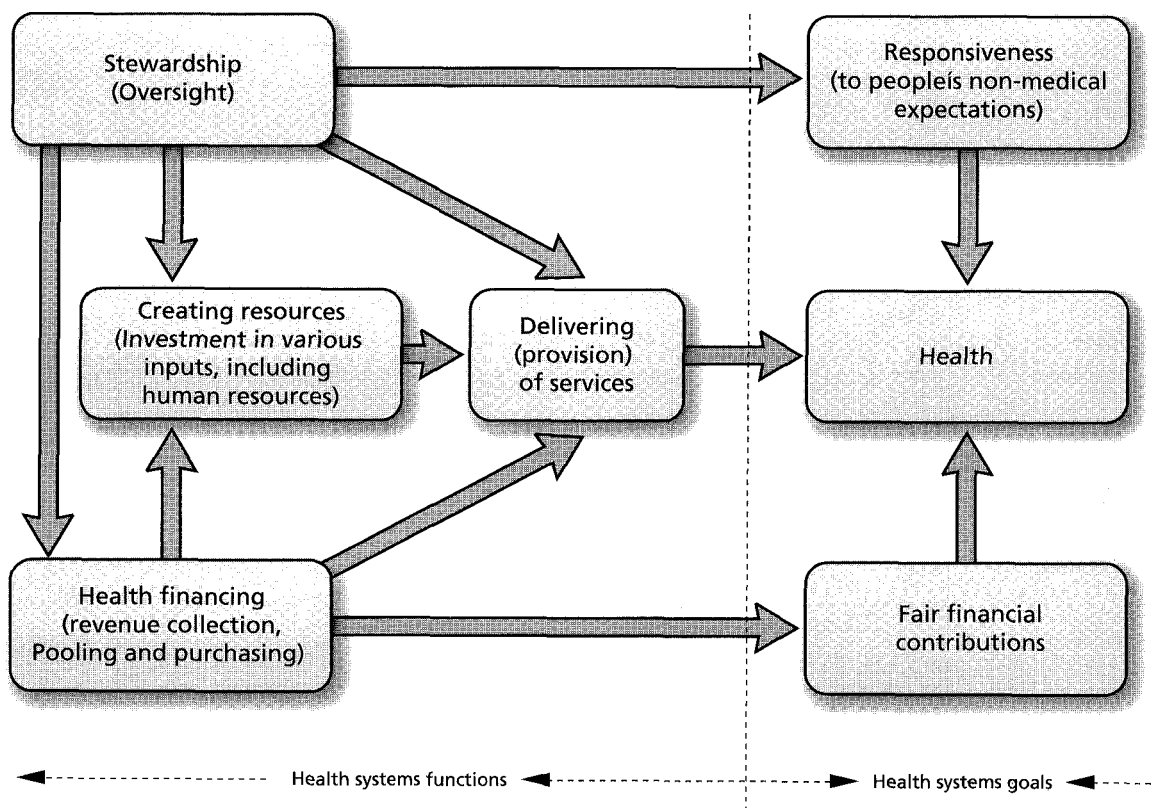
**MATERIALS AND METHODS**

*Overview of Health System Conceptual Framework:* A health system includes all activities whose primary purpose is to promote, restore or maintain individual’s physical, mental and social well-being (17). Thus, a health system activities includes health promotion, disease prevention, treatment, rehabilitation and nursing/care (including community and home-based care). According to WHO (18), a health system performs the functions of stewardship (oversight), health financing, creating

resources/inputs (including human resources for health) for producing health, and delivering (providing) personal and non-personal services with a view to improving responsiveness to people’s non-medical expectations, ensuring fair financial contribution to health systems and ultimately improving health status (health-related quality of life and/or length of life) (Figure 1). The way a health system is financed affects the performance of its other three functions and the achievement of health system goals.

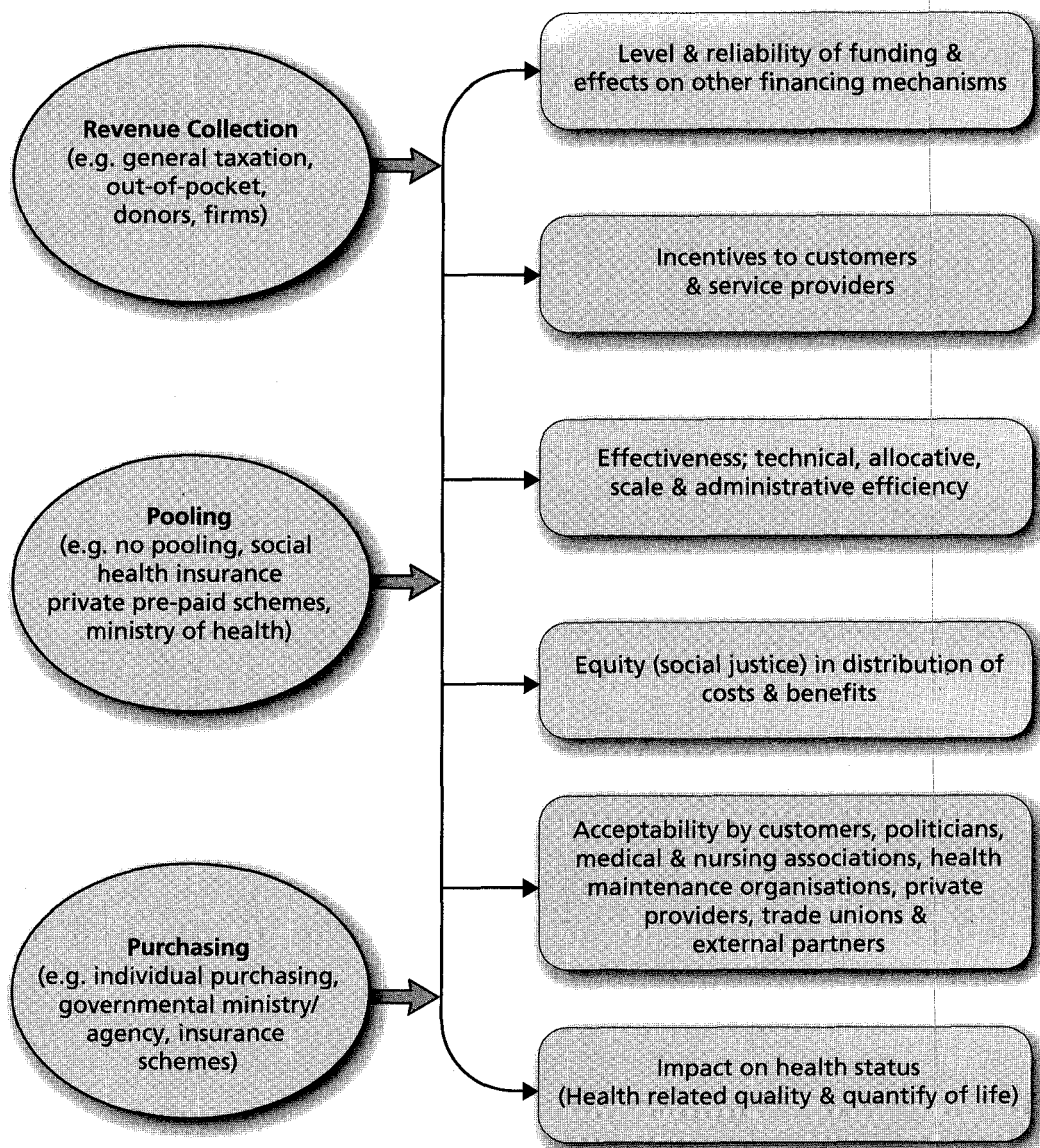
Health financing has been defined as the raising or collection of revenue to pay for the operation of the health system (19,20). It has three functions: revenue collection from various sources, pooling of funds and spreading of risks across larger population groups, and allocation or use of funds to purchase services from public and private providers of health care (18) (Figure 2). The objectives of health financing are to make funding available, ensure choice of cost-effective interventions, set appropriate financial incentives for providers, and ensure that all individuals have access to effective public health and personal health care (21).

**Figure 1**  
*Health systems conceptual framework: functions and goals*



Source: Murray and Frenk [21]

**Figure 2**  
Health financing conceptual framework



Revenue collection is the process through which the health system receives money primarily from households, business firms, ministry of finance and donors (in the form of grants and loans) (18). The revenue collection potential depends on various factors, e.g. absolute income and its distribution, natural resource revenues, effectiveness of tax systems, structure of the labour market (i.e. formal versus informal sectors), population size, and level of solidarity.

There are two broad sources of health financing: public sources and private sources. Public sources include: general tax revenues (from personal income tax, taxes on domestic business transactions and profits, taxes on imports and exports, and property

taxes); indirect taxes incorporated into the selling price of a good or service (e.g. sales and value added taxes and excise duties on tobacco products and alcoholic drinks); taxes on lotteries and betting; domestic and international deficit financing (issuance of debt certificates or bonds and loans from bilateral and multilateral agencies); external grants (includes charitable donations by foreign governments or organisations); and social insurance (mandatory insurance payments by employers and employees) (18-20).

Private sources of funds include: households (direct out-of-pocket payments by a health services consumer to the provider); employers (firms paying for or directly providing health services for their

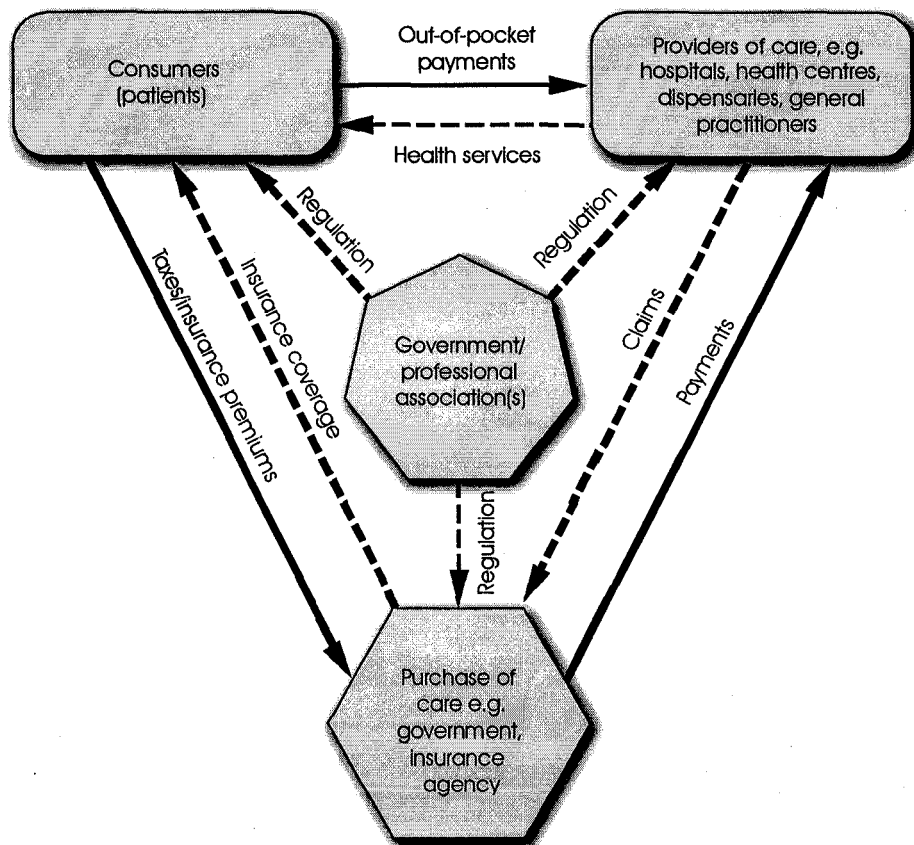
employees); private prepaid health insurance plans (households make voluntary payments private insurance companies in return for coverage of pre-specified health service costs); donations (charitable contributions made in cash or kind); and voluntary organisations or non-governmental organisations (18-20).

From sources, the funds usually pass through financing agents or intermediaries (e.g. private firms, households, private health insurance companies, social health insurance schemes, international aid agencies, government ministries) before reaching the health service providers (Figure 3). Some of the financing agents perform the pooling sub-function. The financing agents employ various methods of paying providers including line item budget; global budget; capitation; diagnostic related payment; fee-for-services.

The performance of a health financing system depends on the level of prepayment; the degree of spreading of risk; the extent to which the poor are subsidised; and strategic purchasing (active leveraging of provider payments mechanisms to optimise overall health system performance) (18).

*Data:* The National Health Accounts (NHA) data on the 46 WHO Member States in the African Region were obtained from the World Health Report 2005 (22). It consisted of information on: levels of per capita expenditure on health; total expenditure on health as a percentage of gross domestic product (GDP); general government expenditure on health as a percentage of total expenditure on health; private expenditure on health as a percentage of total expenditure on health; general government expenditure on health as a percentage of total government expenditure; external expenditure as a percentage of total expenditure on health; social security expenditure on health as a percentage of general government expenditure on health; out-of-pocket expenditure as a percentage of private expenditure on health; and private prepaid plans as a percentage of private expenditure on health. In this study we have attempted to compare the NHA data for 1998 with that of 2002. WHO is currently working with countries to obtain the NHA data for 2003 and 2004. The analysis was done using Lotus SmartSuite software.

**Figure 3**  
*Agents in health financing*

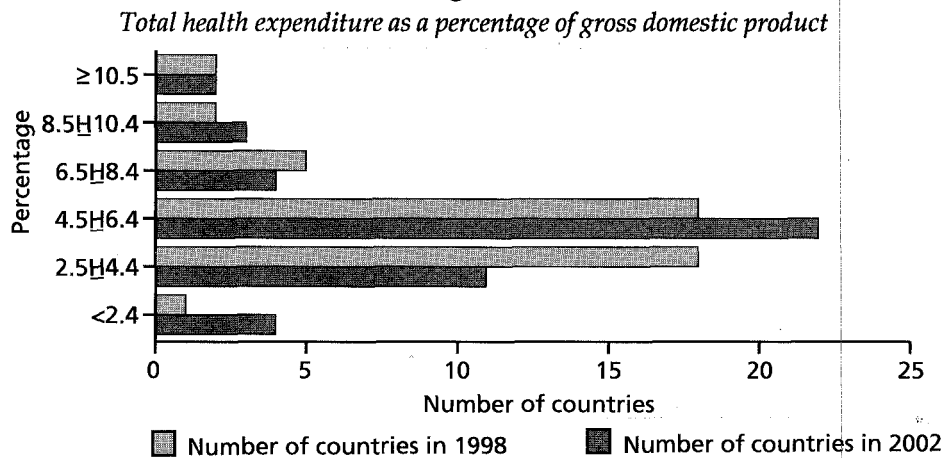


RESULTS

Health Expenditures

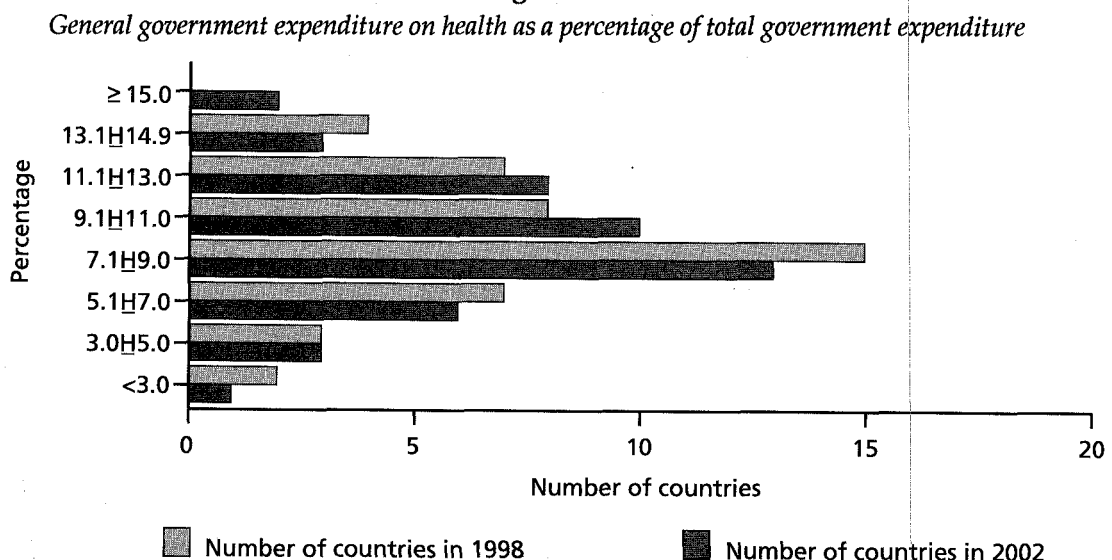
*Percentage of GDP spent on health:* Figure 4 shows total health expenditure as a percentage of GDP. In 1998 nineteen countries (forty four percent of the countries in the Region) spent less than 4.5% of their GDP on health; 25 countries spent between 4.5% and 10.4% of their GDP; and only two countries spent 10.5% and above of their GDP on health. In 2002, fifteen countries spent less than 4.5% of their GDP on health; 29 countries spent between 4.5% and 10.4% of their GDP; and only two countries spent 10.5% and above of their GDP on health. About four countries increased the percentage of GDP spent on health. By end of 2002 the percentage of countries spending less than 4.5% of their GDP on health had declined to 33%.

Figure 4



*Percentage of national budget spent on health:* Figure 5 indicates general government expenditure on health as a percentage of total government expenditure. In 1998 five countries spent less than 5.1% of their annual national budget on health; 22 countries spent between 5.1% and 9.0% of their budget; and 19 countries spent between 9.1% and 14.9% of their budget on health. In 2002, four countries spent less than 5.1% of their annual national budget on health; 19 countries spent between 5.1% and 9.0% of their budget; 21 countries spent between 9.1% and 14.9%; and two countries spent 15% and above of their budget on health.

Figure 5



*Per capita total expenditure on health and government expenditure on health:* Figure 6 depicts per capital total expenditure on health. In 1998 the total expenditure on health per person per year was less than US\$ 10 in 11 countries; between US\$ 10 and US\$ 30 in 22 countries; over US\$30 in 13 countries. In 2002, the total expenditure on health per person per year was less than US\$ 10 in ten countries; between US\$ 10 and US\$ 30 in 20 countries; over US\$30 in 16 countries.

**Figure 6**

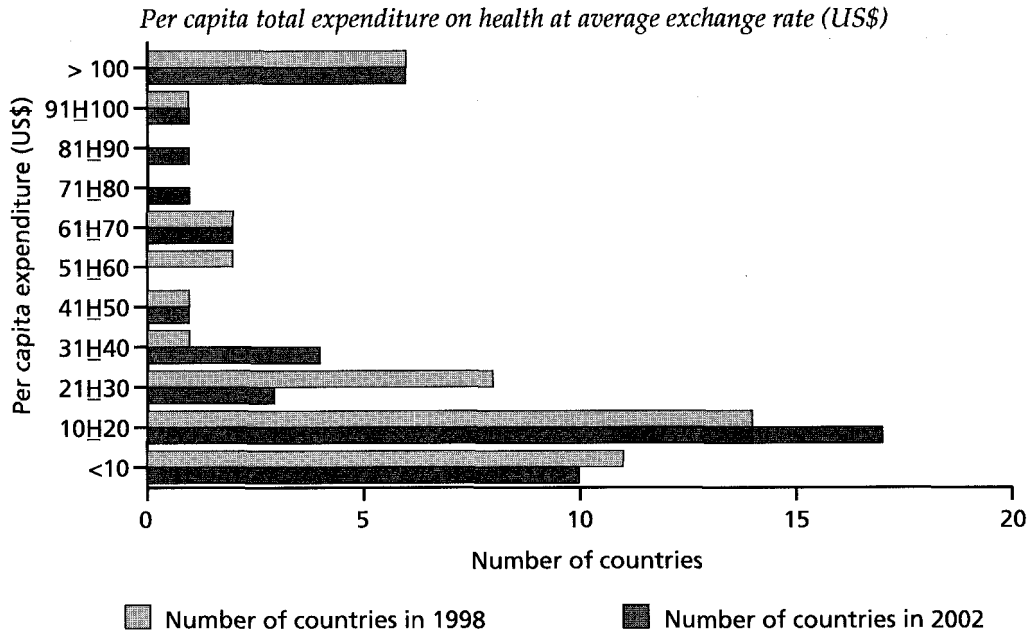
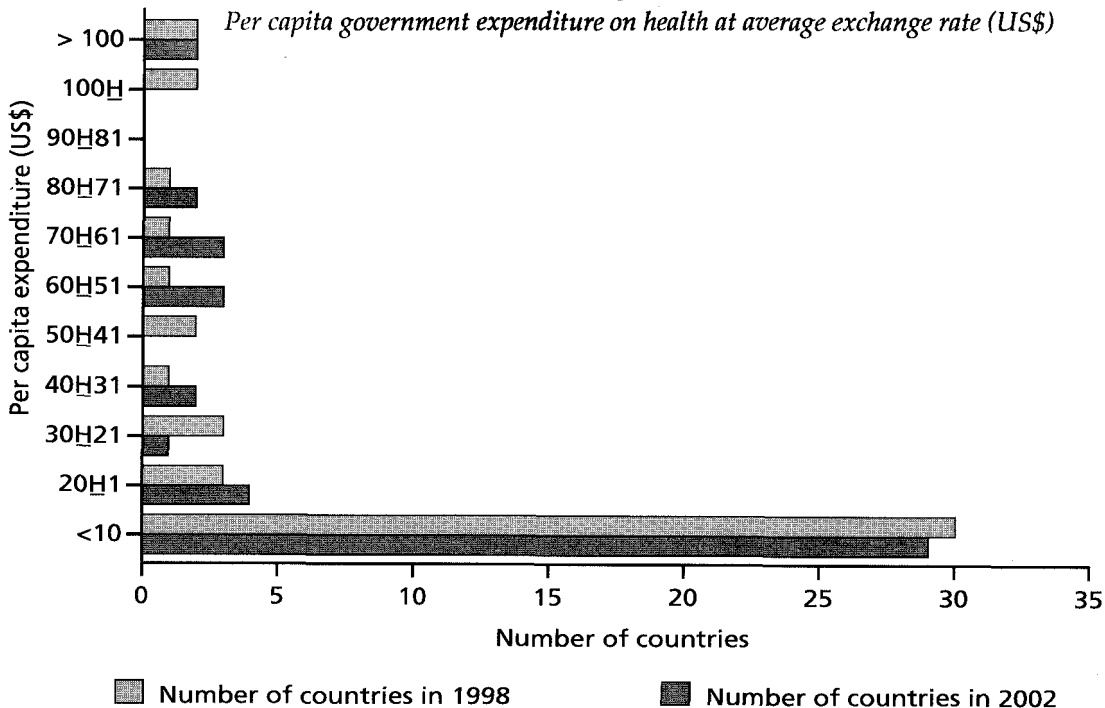


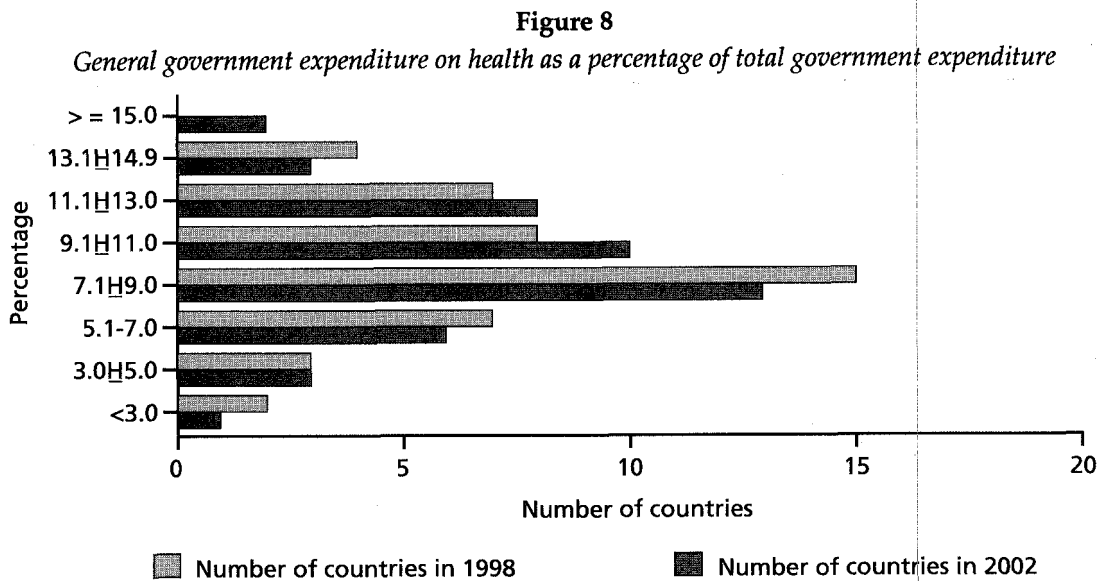
Figure 7 shows per capita government expenditure on health. In 1998 the government expenditure on health per person per year was less than US\$10 in 30 countries; between US\$ 10 and US\$ 30 in six countries; and over US\$30 in ten countries. In 2002 the government expenditure per person per year was less than US\$10 in 29 countries; between US\$ 10 and US\$ 30 in five countries; and over US\$30 in twelve countries. The change in per capita government expenditure on health from 1998 to 2002 was negligible.

**Figure 7**

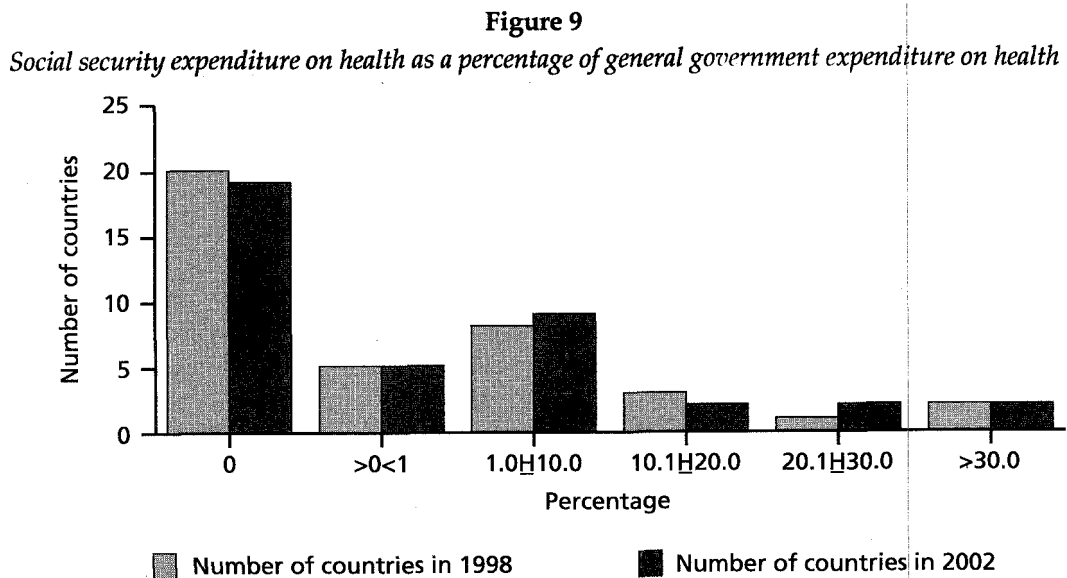


Sources of funding

**Government financing:** General government expenditure on health includes health expenditure at all levels (and ministries) of government, including the expenditure of public corporations. Figure 8 depicts the general government expenditure on health as a percentage of total expenditure on health. In 1998 over 50% of the total expenditure on health in 21 countries was from government sources, compared to 24 countries in 2002. Thus, government is an important source of health financing in most of the countries in the Region.



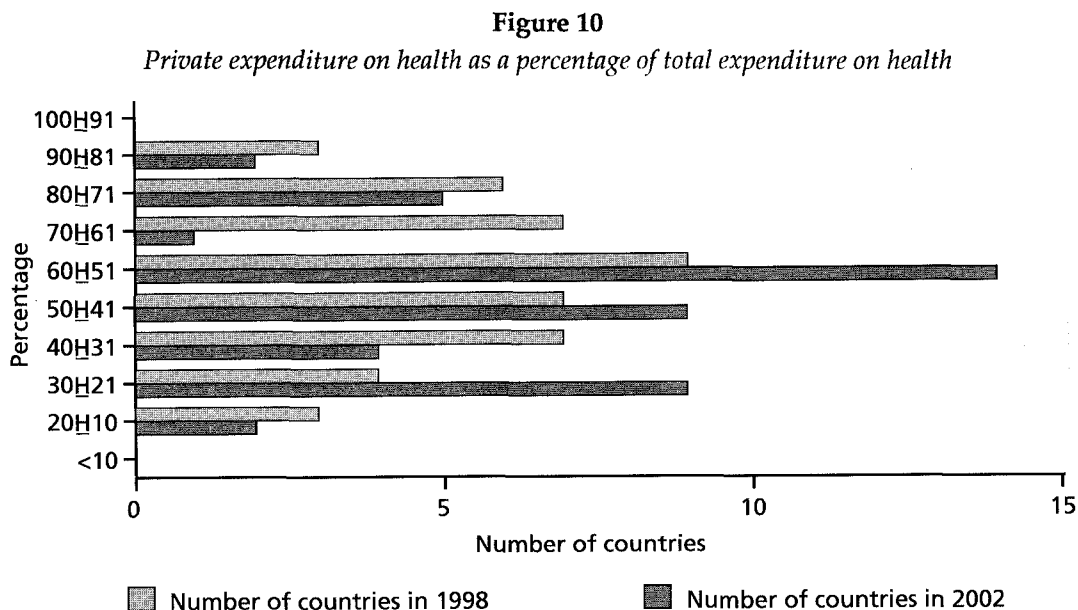
**Social security spending on health:** WHO (23, p.302) defines social security schemes as “social insurance schemes covering the community as a whole or large sections of the community that are imposed and controlled by government units. They generally involve compulsory contributions by employees or employers or both, and the terms on which benefits are paid to recipients are determined by government units. The schemes cover a wide variety of programmes, providing benefits in cash or in kind for old age, invalidity or death, survivors, sickness and maternity, work injury, unemployment, family allowance, health care, etc. There is usually no link between the amount of the contribution paid by an individual and the risk to which that individual is exposed”.





In 1998, out of 39 countries for which data were available, twenty countries did not incur any expenditure on health from social security; in 13 countries social security spending formed less than 10.1% of the general government expenditure on health; and in the remaining six countries social security contributed over 10.1% to the general government expenditure on health. In 2002, out of 39 countries 19 did not incur any expenditure on health from social security; in 14 countries social security contributed less than 10.1% of the general government expenditure on health; and in the remaining six countries social security contributed over 10.1% to the general government expenditure on health. Social security makes only a modest contribution to health spending in most countries of the Region.

*Private financing:* This includes spending by private insurance, private households' out-of-pocket payment (Oops), non-profit institutions (other than social insurance), and private firms and employers (23). Private financing for health comes from personal out-of-pocket payments made directly to various providers (e.g. public health facilities, private practitioners, private pharmacists, traditional healers), prepayments to community financing schemes (e.g. Bamako initiative), private insurance and indirect payments for health services by employers (firms) and local charitable groups. Figure 10 shows private spending on health as a percentage of the total expenditure on health.

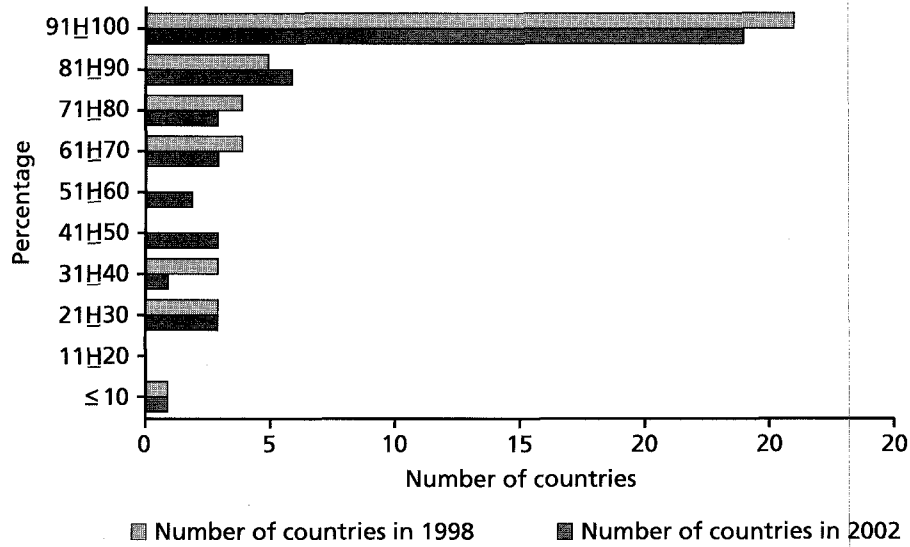


Private spending constituted over 40% of the total expenditure on health in 32 countries in 1998 and in 31 countries in 2002. Private expenditure on health as a percentage of total health expenditure has not changed much over the five years. However, it is important to acknowledge that private spending continues to be a significant source of funds for the health system. This source consists of primarily Oops and private prepaid plans.

*Out-of-pocket payments:* Figure 11 shows out-of-pocket (Oop) expenditure on health as a percentage of private expenditure on health. In 1998 Oop expenditures constituted 51% to 90% of the private health expenditure in 13 countries and 91% to 100% in 26 countries. In 2002, out-of-pocket expenditures constituted 51% to 90% of the private health expenditure in 14 countries and 91% to 100% in 24 countries. In 2002 out-of-pocket expenditures constituted over 50% of the private health expenditure in 38 countries. This clearly indicates that the households, through direct out-of-pocket expenditures at the point of service consumption, make a significant contribution to the private health expenditure in majority of the countries of the Region.

**Figure 11**

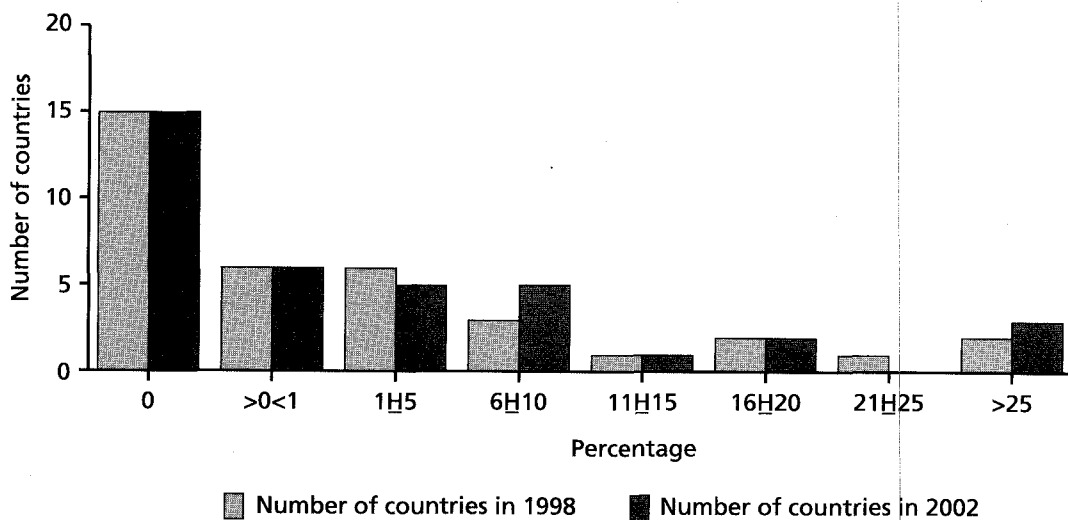
*Out-of-pocket expenditure as a percentage of private expenditure on health*



*Private prepaid plans:* Figure 12 presents private prepaid plans (which are voluntary in nature) as a percentage of private expenditure on health. In 1998, out of 36 countries whose data were available, 15 of them had no private prepaid health insurance plans; 15 countries reported that prepaid plans contributed less than 11% to private expenditure on health; and the remaining six countries reported that prepaid plans accounted for 11% and above of the private health expenditure. In 2002, out of 37 countries whose data were available, 15 of them had no private prepaid health insurance plans; 16 countries reported that prepaid plans contributed less than 11% to private expenditure on health; and the remaining six countries reported that prepaid plans accounted for 11% and above of the private health expenditure. It was only in two countries (Namibia and South Africa) where private prepaid plans accounted for more than 72% of the private health expenditure. Thus, with exception of Namibia and South Africa, private health insurance is fairly underdeveloped in the Region.

**Figure 12**

*Private prepaid plans as a percentage of private expenditure on health*



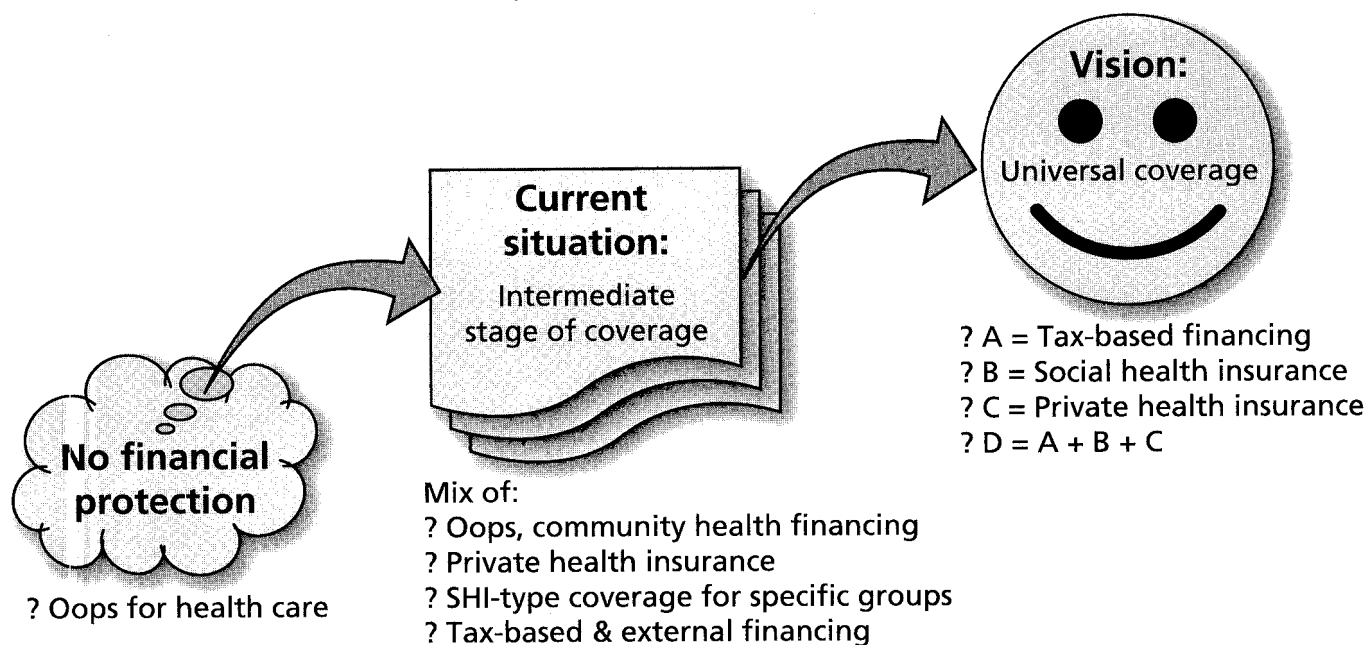
*External financing:* Figure 13 shows external resources for health as a percentage of total expenditure on health. External resources for health consist of mainly of loans and grants from multilateral and bilateral aid donors and nongovernmental organisations (e.g. Global Fund for AIDS, Tuberculosis and Malaria). All countries in the Region receive some external funding for health. The magnitude of external funding on health as a percentage of total expenditure on health varies a lot from country to country.

In 1998, 33 countries received 25% or less of total expenditure on health from external sources; and the remaining 17 countries received over 25% of their total resources for health from external sources. In 2002, 29 countries received 25% or less of total expenditure on health from external sources; and the remaining 17 countries received over 25% of their total resources for health from external sources.

On average external sources contribute 20% of the total expenditure on health in the Region. In 2002 seventeen countries received over 25% of their total resources for health from external sources; and the remaining 29 countries received 25% or less.

**Figure 13**

*External resources for health as a percentage of total expenditure on health*



## DISCUSSION

### *Health Expenditures*

*Percentage of GDP spent on health:* Given the importance of health in human capital development, and hence, in economic growth and development (24,25), one would have expected countries to invest a greater share of GDP in health development. The size of GDP allocated to health sector depends mainly on the priority attached to health development and on the rate of economic growth. If these two factors are low, the likelihood is that the percentage of GDP allocated to health would also be low, and vice versa. About four countries increased the percentage of GDP spent on health.

*Percentage of national budget spent on health:* In 1998, 59% of countries spent less than 9.0% of their annual national budget on health, compared to 50% of the countries in 2002. Heads of States of African countries made a commitment in Abuja to allocate at least 15% of their annual budgets to the health sector (2). By end of 2002, only two countries had spent 15% and above of their budgets on health. This means that 44 countries spent less than 15% of their national budgets on health and will need to take appropriate steps to honour the commitment made by their respective Heads of State. If African governments cannot fulfil their own commitments, it would be difficult to hold their health development partners accountable, when they default on their promises. The fact that in the Maputo Declaration (4), the African Heads of State

reaffirmed their commitment to achieving the target of allocating 15% of national budget to health is, probably, an indication that they realise the implications for not meeting it.

*Per capita total expenditure on health and government expenditure on health:* It is a matter of great concern that in 1998 and 2002 65% and 63% respectively of the governments in the Region spent less than US\$10 per person per year on health. The WHO Commission for Macro-economics and Health (24,25) estimated that a minimum government expenditure of US\$ 34 per person per year was required to provide an essential package of public health interventions in order to achieve the relevant MDGs. Thus, the 36 governments that were spending less than US\$ 34 on health per capita in 2002 needed to intensify their efforts to boost their budgetary allocations to the recommended minimum health spending per person. It is equally important to ensure that any increments in per capita government expenditure on health are benefiting mainly those people living below the international or national poverty lines.

#### *Sources of funding*

*Government financing:* Some scholars have criticised this source of funding as inefficient and inequitable (26). However, given that about 41% of the people in the Region live below the poverty line of US\$1 per day, there is obviously a role for government financing as a force for equity in sharing health care costs and for government provision of services to improve equity in access for the poor, most of whom live in remote rural areas and shanty towns. Government health financing should be leveraged to assure health care for the poor, especially among the peripheral health facilities. Of course, there is need to monitor the efficiency in use of funds from government and the efficiency in production of services.

*Out-of-pocket payments:* Proponents of direct OoPs build their case on a number of rather shaky grounds: curbs unnecessary or frivolous consumption of government health care (cost-containment measure); increase revenue through levying of most user fees since price elasticity (responsiveness) of demand is low – in any case the

'frivolous' consumers pay considerable amounts to private health services and to traditional medicine practitioners which indicates willingness and ability to pay for public health services; improve quality and coverage of care in public health sector; rationalise demand of care through graduated user fees (higher user fees at teaching/tertiary hospital vis-à-vis those of regional/provincial hospitals, district hospitals, health centres and dispensaries) which deters patients from bypassing lower level more cost effective health facilities; waiver and exemption mechanisms assures access to care for the poor or financially challenged (26-28). Generally, the available evidence does not support the arguments of the proponents of OoPs.

*Curbs unnecessary or frivolous (unnecessary) consumption:* After the Kenyan Government introduced user fees in government hospitals and health centres in December 1989, the number of outpatient visits in government health centres (primary health care facilities) decreased by 52%. This prompted the government to suspend the fees for approximately 20 months. Over the seven months after suspension of fees, attendance at government health centres increased by 41%. Mwabu *et al* (29) concluded that looking at the movement of patients in the health care system as a whole, user fees forced 20-26% of the patients out of the modern health care system altogether.

Following the introduction of registration fees in Zambia at health centres and treatment fees in hospitals in mid-1990s, overall attendance dropped by a third over two years (30,31). Other studies conducted in Ghana (32) and Tanzania (33) also found significant decreases in utilisation of health services as result of user fees. The decrease in health care utilisation did not come as a surprise because, according to UNDP human development report 2005, 39.5% of people in Ghana, 42% of people in Kenya and 35.7% of people in Tanzania live below national poverty line, and an average of 42% of people in the Region live below the international poverty line of US\$1 per day.

It is common knowledge that majority of the people who utilise the public health facilities services are the poor. These are the people who, due to low opportunity cost of their time and lack of effective choice due to poverty, are willing to spend a lot of time queuing for health care in overcrowded

government health facilities. Sauerderborn *et al* (34) found that price elasticity of demand for health care was significantly higher among the most vulnerable (children under one, children under 15 and low-income families) compared to adults and high-income families. This finding has been collaborated by studies in Ghana (35,36), Kenya (37) and Nigeria (38). Thus, any increases in health care user fees would have a disproportionate negative impact on utilisation of the children and the poor.

*Increase revenue:* User fees (i.e. which are part of OOPS) on average contribute only 5–10% of Ministries of Health recurrent budgets (39). Gilson's (40) survey of 16 countries in the Region found that user fees contributed 1 to 20% of recurrent budget of ministry of health. The low revenue generation potential could be attributed to the generally low per capita incomes and the high elasticity of demand for health care among the low-income households, who constitute the majority of populations of countries in the Region. However, having said that user fees constitute a very significant part of expenditures in private-for-profit and private-not-for-profit services.

*Improve quality of care in public health sector:* The hypothesis that user fee revenues would be reinvested in improving quality of care, assumes that users would be willing and able to pay new prices, funds raised would be substantial, funds will be retained by collecting facilities, funds will be properly managed and reinvested in ways that improve quality for patients, and funds raised will not be offset by a decline of funding from other sources, such as government or local authority (41). Evidence garnered from various countries (e.g. Burundi, Kenya, Uganda, Tanzania) does not seem to support this hypothesis (41).

*Rationalise demand of care through graduated user fees:* According to Mwabu (42) the hierarchical referral health care system permits movement of patients from the base (health posts and centres) of the national health care system to its apex (tertiary hospitals) and vice versa. The movement of patients in the referral system is intended to be initiated by the health professionals but in practise patients or their relatives move themselves up or down this system. In Kenya he found that expectation of better

quality of service from the next health facility, or lack of drugs at the closest clinic, were two most commonly mentioned reasons for bypassing the nearest health unit, not user fees.

Hongoro *et al* (43) study in Zimbabwe found that even with introduction of graduated user fees patients continued to bypass the referral system mainly due to distance to service facility, perceived quality, lack of knowledge of the functional roles of hospitals and health centres. Thus, whether user fees induces behaviour among consumers to adhere to referral systems or not depends on the technical and perceived quality of care in lower level health facilities vis-à-vis district hospitals, district hospitals vis-à-vis regional/provincial hospitals, and provincial hospitals vis-à-vis tertiary hospitals. If the quality of care in higher level facilities is perceived to be significantly higher, when loved ones are seriously sick, even the relatively poor might sell whatever assets they have (or incur debts) to acquire that care. The sale of the few assets (e.g. basic farming tools, land) the poor have, will only serve to deepen the severity of their poverty. Those with young girls in school may force them to get married in order to get the dowry (bride prize) for paying the medical expenses for others; this would serve to exacerbate the existing gender inequities.

*Waiver and exemption mechanisms assures access to care for the poor or financially challenged:* Mwabu *et al* (44) after analysing the negative effects of health service pricing reforms in Kenya arrived at the conclusion that demand-side cost sharing reforms (introduction of user fees) in low-income countries should be accompanied by fee exemption schemes to protect the poor from adverse effects of fees. Gilson *et al* (45) found that out of 25 African countries operating user fees systems, only 15 had exemption policies, and only one had defined income limit. And even those countries with exemption policies on paper, most were not functioning for various reasons, including: the difficulty of determining inability to pay where most of the patrons of public health facilities were peasant farmers and informal sector workers; fear of stigmatisation among the poor/indigent; lack of incentive for care providers to exempt (46). Even when official policy to exempt the poor exist, there are many informational, administrative, economic and political constraints to effective implementation of exemptions (47).

Huber (48) econometrically demonstrated that designing a formal fee exemption scheme based on patients' observable socio-economic characteristics, such as income, sex and age, was not feasible.

Even though the question of whether OOPS should be abolished or not is beyond the scope of the current paper, we have to take cognisance of the compelling evidence that suspension of user fees in Kenya in September 1990 (29); abolition of user fees for all Ugandan public health services in 2001 (49); and abolition of user fees in all South African public primary care facilities in 1998 (50) unequivocally led to a substantial increase in utilisation of the concerned services. On the face of the mounting evidence of the negative impacts of OOPS on utilisation of health care and health outcomes especially among the very poor, there are growing calls among donors and academia for their abolishment.

Gilson and McIntyre (51) cautions that removal of user fees is not a simple "stroke of the pen" exercise, instead it should be carefully managed to obviate negative impacts on the wider health system. They propose seven practical strategies for managing fee removal:

- (a) "Give a specific government unit the task of coordinating fee removal and the other actions necessary to strengthen health system to cope with anticipated surge in utilisation.
- (b) Communicate clearly with health workers and managers about the policy vision and goals, as well as about what and when actions will be taken – through meetings, supervision visits, newsletter, etc.
- (c) Establish new funds at local level, controlled by managers, to allow the managers to make small scale spending decisions.
- (d) Before the policy change, start a wide ranging public information campaign including radio spots, newspaper articles, posters, meetings with village leaders to communicate the details of what users can expect to experience at facilities.
- (e) Plan for adequate drugs and staff to be available to cope with increased utilisation, and plan how to tackle wider drug and staffing problems in the longer term.
- (f) Improve physical access to health services, particularly through "close to client" services.

- (g) Establish monitoring systems that cover utilisation trends, including the relative use of preventive versus curative care, and give health workers and managers opportunities to feed back on health facility experiences."

*Private prepaid plans:* Private prepaid plans include prepayments to community based health insurance schemes and private health insurance. Private insurance, which is usually voluntary, represents all risk-sharing arrangements that are based on a private contract between the insurance entity and the insured individual which cover health care costs (52). With exception of Namibia and South Africa where private-for-profit health insurance is strong and accounts for over 72% of the private health expenditure, the pre-dominant private prepaid plans in other countries consists of mostly prepayments to community-based health insurance (CBHI) schemes. Thus, with exception of Namibia and South Africa, private health insurance is fairly underdeveloped in the Region.

Private health insurance in the Region is characterised by low membership, low contributions, low coverage (almost exclusively limited to high income percentiles), weak regulatory environment (except in South Africa) (52). Eighty percent of all people with private health insurance are estimated to belong to the two highest income quintiles while only 2% of the lowest income quintile have private health insurance (53). According to Sekhri and Savedoff (53) there are a few lessons that developing countries policy makers can learn from developed countries experiences: no high-income country uses private coverage as the primary method for insuring poor or high-risk populations; government stewardship of health insurance markets is critical to their effective functioning; institutional capacity, information systems and capacities developed for regulating private health insurance can be useful in the transition to universal coverage health insurance systems; private health insurance can provide financial protection to middle- and high-income groups, thus allowing scarce tax revenues to assure access to health care for vulnerable groups and to fund provision of public goods.

Bennett (54) defines CBHI as any voluntary scheme managed and operated by an organisation, other than a government or private-for-profit

company, that provides risk pooling to cover all or part of the costs of health care. She argues that CBHI schemes differ in terms of their objectives and origins, ownership structures, funding flows (and their levels), comprehensiveness of benefit package (and hence effective degree of risk protection), and number of members covered. There exists three types of CBHI schemes in the Region provider-based schemes (e.g. Bamwanda and Masisi hospitals pre-payment schemes in Democratic Republic of Congo, Nkoranza community health insurance scheme in Ghana, Chogoria hospital in Kenya, Kanage Cooperative Scheme in Rwanda, Kisiizi hospital health society), community-based schemes (e.g. Baboantou in Cameroon; Bakoro, CASOP and St. Alphonse in Democratic Republic of Congo; Carte d'Assurance Maladie (CAM) programme in Burundi; Dangme West Health Insurance Scheme in Ghana; Boboye District Scheme in Niger; Community Health Fund in Tanzania; MHO (Mutual Health Organisation) in Senegal; NHP/FU in Uganda), and national schemes (e.g. Abota Village Insurance Scheme in Guinea-Bissau) (54).

A recent systematic review of the evidence on CBHI in low-income countries found that there is: evidence that these schemes have a positive effect on resource mobilisation in the operating areas, although actual amounts raised are limited; evidence that average cost-recovery ratio is only around 25%; weak evidence that they affect efficiency with which care is produced; no evidence that they impact on the quality of care or lead to moral hazard; strong evidence that they provide effective protection to members by significantly reducing the level of Oop for care; moderately strong evidence that they increased access to care predominantly to members of the schemes; and evidence their effective population coverage is on average 10% of target population (55).

According to Preker *et al* (56) the key advantages and disadvantage of community-based schemes lie in their ability to fill the policy, management, organisational, and institutional void left by extreme government failure to secure more organised financing arrangements for the poor. Krishnan and Jakab (57) provides a detailed review of the strengths and weaknesses of community financing. Arhin-Tenkorang (58) recommends that given the important role played by CBHI schemes in enhancing protection of the low income groups

against catastrophic health care costs, donors can be instrumental in establishing subnational schemes by providing start-up funding and reinsurance guarantees through sector-wide approaches. She further recommends that governments, in their stewardship role, need to put into place policies that provide regulatory framework (legal, financing, and informational) for scheme management and interactions with other parts of the health system. Governments and external partners could also work together in support of CBHI schemes to strengthen policy environment (alluded to above), strengthening administrative infrastructures and human capabilities to manage schemes.

In addition, to the above recommendations, Preker *et al* (59) proposes public policy measures that governments can take to improve the effectiveness of community involvement in health care financing: '(a) increased and well-targeted subsidies to pay for the premiums of low-income populations; (b) use of insurance to protect against expenditure fluctuations and use of reinsurance to enlarge the effective size of small risk pools; (c) use of effective prevention and case management techniques to limit expenditure fluctuations; (d) technical support to strengthen the management capacity of local schemes; and (e) establishment and strengthening of links with the formal financing and provider networks.'

Although private spending is currently a significant source of health financing it is inequitable, and may have adverse effects on health status of the most vulnerable groups in society.

*Social Health Insurance (SHI)*: SHI is a universal coverage health financing mechanism that involves compulsory membership amongst all of the population (in principle), provides a specified benefit package of care to the insured, and is financed through mandatory contributions from workers, self-employed, enterprises and government. SHI has not taken root in the Region. Its limited contribution to health financing could be attributed to wide spread poverty, and a high proportion of the population working in the informal sector. However, due to inequities related to out-of-pocket payments and the need for sustainable funding for the health sector, the Fifty-eighth WHO World Health Assembly adopted a resolution entitled 'Sustainable health financing,

universal coverage and social health insurance' (60). The resolution urges Member States, among others, to ensure that health-financing systems include a method for prepayment of financial contributions for health care, with a view to sharing risk among the population and avoiding catastrophic health-care expenditure and impoverishment of individuals as a result of seeking care. Ghana (61,62), Kenya (63), Nigeria (64) and Tanzania are in the process of introducing national social health insurance schemes.

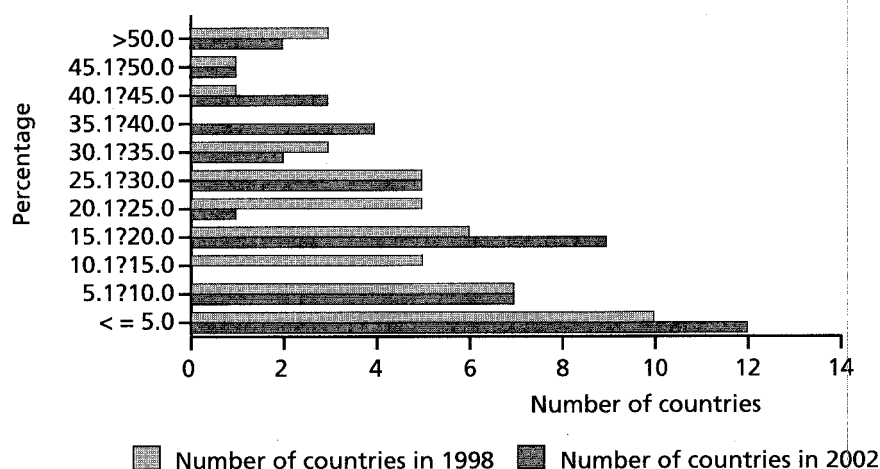
African countries efforts to introduce social health insurance may face a number of challenges: (i) wide-spread poverty (over 41% of the population in African countries live below the international poverty line of US\$1 per day), and hence, heavy financial burdens upon government who would be required to make contributions on behalf of the indigent and government employees; (ii) dearth of health facilities especially in remote rural areas capable of providing health insurance benefit package; (iii) in presence of significant inequalities in incomes and assets it would be difficult to guarantee similar health service benefits to those with similar healthcare needs, regardless of the level of their contributions; (iv) weak administrative, managerial, legal, institutional and financial control capacities; (v) large peasant farming and informal sectors would pose difficulties in assessing incomes,

setting health insurance premiums, and collecting them; (vi) low levels of economic growth limits households, firms and governments capacity to make prepayment contributions; (vii) chronically high unemployment rates, e.g. if unemployment increases real wages decrease the real level of resources for health insurance decreases; (viii) administrative costs of setting and running social health insurance may be very high; (ix) building of a broad consensus for social health insurance among all the key stakeholders (e.g. ministry of finance, donor community, association of employers, trade unions, health professional associations, private health providers and insurers) may prove to be a major feat (65,66). Even once established, the social insurance schemes will have to deal with the problem of moral hazard, i.e. abuse of insurance benefits without bearing financial consequences of ones' behaviour (67).

We do not imply that the above-mentioned challenges are insurmountable. Instead, those challenges imply that social health insurance will have to be developed within a comprehensive national health financing policy and strategic plan. The plan should map-out the monitored transition from the current situation characterised by predominantly out-of-pocket payments to a visionary situation of universal protection against cost-of-illness (Figure 14).

Figure 14

*Transition from absence of financial protection to universal coverage*





For those countries that decide to introduce national SHI, there may be need to implement it in a phased and carefully monitored manner (e.g. starting with groups with formal employment) (68).

*External financing:* Even though all countries receive some health funding from external sources, there is wide variation across the countries. External funding to countries in the Region is predicted to increase substantially over the next decade.

The United Nations (4) urged OECD countries to allocate at least 0.7% of their gross national income (GNI) to developing countries. To date only five of the 22 OECD member countries (Denmark, Luxemburg, Netherlands, Norway, and Sweden) have already raised overseas development assistance to 0.7% of their GNI. However, the European Union as a whole has pledged to reach the target by 2015 with a new interim collective target of 0.56% of ODA to GNI by 2010 (69).

In addition, "the G8 has also made a specific commitment to double aid to sub-Saharan Africa to US\$50 billion by 2010. In the case of the EU that has pledged to nearly double (from Euro 34.5 billion to Euro 67 billion) its ODA between 2004 and 2010, at least 50% would go to sub-Saharan Africa. The USA has also committed to double aid to sub-Saharan Africa between 2004 and 2010, and Canada between 2003/4 and 2008/9. Japan has committed to double its ODA to Africa over the next three years. Meeting the target of doubling aid to Africa would imply that half of the increase in aggregate ODA would have to be targeted for Africa (or its share in total ODA would need to rise from its current level of about 37% to 42% by 2010)" (69).

In a nutshell, the G8 countries and other donors have made substantial commitments to increase aid, through a variety of means, including traditional development assistance, debt relief and innovative financing mechanisms, e.g. a solidarity contribution on plane tickets to finance development projects (70). There is need for Ministries of Health and Education in the Region to advocate strongly at global, regional and national forums so that as the above mentioned commitments are fulfilled, significant proportion of additional funds would be earmarked for health and education development.

So far, external aid has been unpredictable, unstable, unsustainable and uncoordinated (71). We concur with the Blair Commission for Africa (72) that

in order to enhance aid effectiveness: (i) it should be 100% untied aid; (ii) 90% should be allocated to the poorest countries; (iii) partners should shift from project to poverty reduction budget support; (iv) partners should align themselves behind national health development policies and plans to ensure country ownership of health development process; (v) partners should aim for 100% debt relief for low income countries; (vi) partners should review their lending policies and practise on aid conditionality to reduce inefficient bureaucracy and attendant administrative costs; (vii) adopt an international health worker recruitment code to stem the tide of brain-drain of human resources for health to developed countries.

It is noteworthy that at the G8 Summit held at Gleneagles in 2005, said "We need to support sound development strategies with better aid, to ensure it is used most effectively. We will implement and be monitored on all commitments we made in the Paris Declaration on aid effectiveness, including enhancing efforts to untie aid; disbursing aid in a timely and predictable fashion, through partner country systems where possible; increasing harmonisation and donor co-ordination, including through more programme-based approaches" (70). Thus, the G8 concurred with most of the proposals made by the Blair Commission for Africa for enhancing aid effectiveness.

## THE WAY FORWARD

### *Strengthening of advocacy capacity within Health Sector*

Advocacy has been defined as an action directed at changing the policies, positions or programmes of any type of institution. It employs various approaches, including lobbying, social marketing, information, education and communication, community organising, etc (73). There is urgent need to strengthen health policy-makers and managers capacities to advocate at national, regional and global forums for increased allocation of available and expected resources to health development. That would entail training and coaching them in all the basic elements of advocacy: developing advocacy objective(s); use data to identify issues for action,

widen the range of possible solutions, directly influence decision makers, inform the media, counter opposing positions, reconsider strategies that are not working; researching policy audiences to understand their knowledge, attitudes and beliefs; developing and delivering policy messages; understanding the formal rules and procedures of the decision-making process; preparation and making of effective (persuasive and inspiring) presentations; fundraising for advocacy; building alliances/networks/coalitions among people and organisations (this could be within a sector-wide approach framework) in order to bring about change; monitoring and evaluation of the advocacy strategy (73). When advocating it is important to remember that health system encompasses all activities whose primary intent is improving health. This means that resource mobilisation should not be limited to MoH activities but the entire health sector plus health-related activities undertaken by other sectors (e.g. home-based care, social work, water and sanitation, safety-belts legislation, tobacco control, health promoting schools initiatives, etc) in order to fully address determinants of health.

#### *Strengthening of national health financing capacities*

Generally, capacity strengthening is a process or activity that improves the ability of a person, group, organisation or system to meet its objectives or to perform better (74). In the context of health financing, it would entail improving the capacity of the health system to make sustainable funding available, as well as to set the right financial incentives for providers, to ensure that all individuals have financial access to effective public health and personal health care.

There are four levels of capacity in the health sector: system (formal and informal procedures by which an organisation operates), organisational, human resource systems and the individual/community (community development, mobilisation and empowerment) (74).

At the system level, it would entail supporting countries to develop comprehensive health financing policies (with a clear vision) and legislation, partner coordination mechanisms (e.g. sector-wide approaches), choice of interventions, choice of provider payment mechanisms, resource

allocation.

At organisational level, this refers to the social structures (functional forms) in the public and private sectors that have been created to collect (e.g. taxation, compulsory and voluntary insurance, form and informal user fees, community payment schemes, individual savings accounts, external aid funds), organise and pool funds, and to pay for the production of health commodities (goods and services). The focus here is on working with countries to develop/strengthen health financing structures, processes and management systems that enable them to perform effectively. For example, it entails strengthening of financing agents (e.g. government bodies at various levels, social health insurance agencies, private insurers) capacities to collect funds from public and private sources, pool funds and use them to strategically purchase services from public and private providers of health care. Capacities pertinent to health financing organisational performance include strategic planning, sectoral investment plans, financial management, information management, logistics systems and communication networks.

At human resource level, human resource systems includes appraisals, training, wages, and the intangibles, such as employee motivation, morale, attitude, and culture (aggregate behaviours, beliefs, and symbols that are conveyed to people in the entire financing organisation over time) (75). At this level, the focus would be to work with countries to develop/strengthen capacities of collective body of individuals who work in technical, managerial and support areas of health system financing. This may concretely entail enhancement of skills (abilities and talents) in accounting, actuarial science, administration, auditing, banking, book keeping, computing, health economics, management (of finances and human resources), marketing, monitoring and evaluation, supervision, etc. In order to cultivate accountability (in place of corrupt practises), transparency, sensitivity for the poor, and revulsion for inequities, capacity strengthening may entail modification of the existing organisational culture or behaviour.

At individual or community level, the focus would be to work with communities to improve their ability to engage productively with the health system through accessing services and influencing resource management, and improving their own health (74). Individuals/communities play various

roles within national health financing systems:

- (i) *Source of information*: provide information on their willingness and ability to pay for health care;
- (ii) *Source of funds*: contributes to health financing through out-of-pocket payments, community-based prepaid health insurance schemes, social and private health insurance schemes;
- (iii) *Management of financing schemes*: participates in management of health financing schemes;
- (iv) *Health services management*: participates in health facility management committees that decides on what services are purchased with resources collected at facility level;
- (v) *Producers of health*: individuals/communities have a vital role to play in decision to use promotive, preventive, curative and rehabilitative care in the production of their own health. Thus, if they spend more of their resources on cost-effective promotive and preventive care, that would subsequently reduce spending on the more expensive curative and rehabilitative;
- (vi) *Consumers of health care*: as consumers of care, individuals/communities can impact on health care expenditures in various ways. Empowered consumers might be in a position to help curb the extent to which health care suppliers (providers) induce need (SIN) and demand (SID) for care. On the other hand because of the information asymmetry between the agent (providers) and the principal (patient), the extent to which the latter can influence the former might be limited.

***Evidence and information generation and utilisation in health finance policy and plan development and management***

According to WHO (23,p.5), financing information is an essential input for strengthening policies to improve the functioning of health systems. This information consists of mostly national health accounts, health financing mechanisms (including their economic viability), economic evaluation (cost and consequences of alternative interventions), provider payment mechanisms (and their incentive structures), efficiency and equity monitoring.

*National Health Accounts (NHA)*: NHA is a tool (a set of two-dimensional tables) for summarising, describing, and analysing total health spending in a country from all sources (23). It tracks flow of funds from public, private and external sources through financing agents (entities that use funds to pay for health enhancing goods and services) to health care providers, functions (e.g. promotive, preventive, curative, rehabilitative and home-based care), inputs (e.g. personnel, pharmaceuticals, non-pharmaceutical supplies, clinical technology, beds, buildings, vehicles), and in principle, beneficiaries. This information is an important input to stewardship of health system since it addresses a number of questions of policy importance: How much does a country spend on activities whose primary intent is to improve health? Where do those funds come from? What kinds of goods and services (e.g. promotive, preventive, curative, rehabilitative care) are they used to purchase? How are health care funds distributed across the different levels of care (e.g. tertiary, secondary, primary and community), services, interventions and activities? Who provides those commodities (goods and services) and at what cost? Whom do those commodities benefit?

Thus, it is critically important to institutionalise NHA process within a competent national agency so that the exercise can be undertaken regularly to ensure generation of up to date information for guiding policy, planning and management.

*Health financing mechanisms*: There will be need to work with countries to collate/gather/assemble and sift the relevant health financing evidence from national and international sources to guide the development of health financing policy and strategic plan. Such evidence may include: estimation of actual cost, revenue and effects of existing financing mechanisms on utilisation of care; expected cost and expected level and reliability of revenue from new health financing mechanisms; and acceptability of various financing mechanisms to consumers, politicians, medical and nursing associations, employer associations, trade unions, private health care providers, and other stakeholders. Before countries embark on more evidence generation exercises, it might be worthwhile to start by reviewing the information that is already available at the Partners for Health Research (76), the WHO (77) and the World Bank (78) websites.

*Cost-effectiveness analysis:* CEA compares two or more interventions, measuring the input in money terms and the outcome in natural or physical units. CEA requires data on costs (measured in money) and outcomes measured in natural units such as number of lives saved/deaths averted, cases detected and treated, cases prevented, visits, discharges (79). According to Evans and Edejer (80), CEA enables decision-makers to determine interventions that provide the highest "value for money" and helps them to choose the interventions and programmes that maximise health benefits from the available resources. Since it is likely to be expensive for individual countries to undertake CEA on a broad range of interventions, WHO-CHOICE project has assembled regional databases on cost, effectiveness and cost-effectiveness ratios of 500 promotive, preventive, curative and rehabilitative interventions using a standard methodology. Those databases, methodology and tools are available on the internet (81) for public use. WHO and other partners are poised to work with Member States to strengthen capacities for adapting the tools and using that evidence to rationalise the choice of public health interventions.

*Provider payment mechanisms:* The way human resources for health (HRH) and health institutions are paid, have a powerful influence on the type (preventive vis-à-vis curative), cost, quantity and quality of services provided and responsiveness to legitimate non-medical expectations of the clients. Thus, it is important to garner evidence on the existing payment systems for HRH (including salary, fee-for-service, capitation or a combination) and institutions (retrospective reimbursement for cost incurred treating patients, prospective reimbursement by fixed global budget, prospectively set cost per case using diagnosis related groups) (82) and the incentives for cost-containment and responsiveness to client expectations.

#### *Making better use of resources*

Health sector resources (land, labour, capital, human capital – skills and knowledge embodied in a person – and entrepreneurial ability) are available in limited quantities, while health needs tend to be unlimited. The health policy-makers decide what services (promotive, preventive, curative and rehabilitative)

would be produced, how they would be produced, and how they would be distributed to beneficiaries. The health systems entrepreneurs (directors of tertiary hospitals, provincial medical officers of health, district health management teams) organise those resources and use them to produce various health services.

While striving to mobilise more resources, it is important to ensure that the available resources are optimally used, i.e. ensure that it is not possible by reallocation of available resources to make someone's health status better off without making someone else worse off (this situation is called by economists Pareto-optimality). If it is possible to through reallocation of resources to improve at least one person's health status without reducing health status of another person, then there is waste within the health system, health facility or programme.

There are a number of strategies that health decision-makers can use to reduce waste in the use of existing resources:

- (a) *Use health financing systems dominated by compulsory prepaid mechanisms or national health services:* Limited utilisation of health services, due to economic or other types barriers, pushes the unit costs of services up. Thus, development of health financing systems that assures universal access to health services, irrespective of ability to pay, would spontaneously increase utilisation of services and hence, reduce unit costs. Obviously, there would be need to complement such financing systems with judicious use of cost containment measures (e.g. co-payments, waiting lists for certain services) to avoid abuse.
- (b) *Allocate resources on the basis of assessed need for health care:* In order to maximise the potential for health gain, the resources should follow health needs, i.e. the capacity to benefit. In other words, money should be spent in addressing the health needs of people with the greatest capacity to benefit. Depending on availability of information, countries will need to measure population need and develop a socially just/fair and objective resource allocation formula. Some of the ingredients of such a formula include: population size, age and sex profiles,

morbidity, social deprivation indicators (e.g. proportion of people living below poverty line), cost weightings (to compensate remote rural areas) and weights for presence of external partner investments.

- (c) *Use of a rational criteria in priority setting and choice of interventions for inclusion into an essential service package*, e.g. high burden of disease, cost-effectiveness and positive externalities associated with the treatment or preventions.
- (d) *Improve the input procurement systems*: Evidence from sub-Saharan Africa indicate that implementing a range of efficient procurement, distribution and prescribing practice can lead to between 10% and 60% cost savings (83).
- (e) *Improve financial management systems*: There is need to strengthen human (book keeping and accounting) and institutional financial management capacities at all levels of national health system. Leverage the services of the office of the auditor-general to enhance audit capacities.
- (f) *Financial decentralisation*: (i) Collaborate with the Ministry of Planning to strengthen planning, monitoring and evaluation capacities at district and facility levels. (ii) Adopt a bottom-up planning. (iii) Develop a legal framework that would enable the Ministry of Finance to disburse funds directly into health facility accounts. (iv) In a phased and monitored manner have the Ministry of Finance disburse funds directly first to tertiary, regional and district hospitals, and subsequently, to health centres and health posts.
- (g) *Contracting of selected services*: (i) It may be worthwhile to explore use of competitive tendering for various inputs (e.g. pharmaceuticals and non-pharmaceutical supplies) and services (e.g. diagnostic services, laundry) with a view to reducing cost and improving quality. This will need to be preceded by assessments of availability of relevant capacities (e.g. for firms to supply the commodities, ministries of health for drafting contracts and monitoring their execution) and the cost effectiveness of contracting. (ii) In localities where private-

not-for-profit health facilities do exist and no public health facilities exists, it may be more efficient to contract with the latter to service the target population (84).

(h) *Leveraging of provider payment mechanisms*:

- *Paying human resources for health*: (i) In countries where human resources for health are paid salaries, its important to build in incentives for performance, e.g. replacing contracts that engage staff till retirement with shorter renewable performance-based contracts, peg annual salary increments to assessed performance, peg promotion to continued exemplary performance, etc. (ii) Countries may want to pay primary health care human resources for health by capitation, i.e. pay a negotiated sum per month for each person who chooses to register with them for primary care, irrespective of whether they use the service or not. (iii) Since fee-for-service system (where payments are for volume of services provided) is more open to fraud compared to other systems of payment, it should be avoided.
- *Paying institutions (e.g. hospitals, health centres, clinics)*: Each country should choose a payment system that encourages the institutions to either aim at maximising outputs from available resources or minimising cost of delivering specific level of outputs. (i) If the countries are allocated a fixed annual budget which cannot be exceeded, it would be important to base it on a carefully costed operational plan for delivering specific services (which could be based on amounts and mix of services provided last year). To obviate bureaucracy and attendant corruption, it may be better to have Ministries of Finance disburse budgets directly into each health facility's account or at least into the account of a hospital and its satellite lower level facilities that it supervises. (ii) If there is capacity to define diagnosis related groups (DRGs) based partly on medical similarity and cost, then a country could prospectively pay institutions by diagnosis. This system would facilitate

cost control since it is related to output and obviates incentive for long stays.

- (i) *Improve the functioning of referral systems:* Mwabu (44) recommends the following reforms to make it more equitable and efficient: '(i) Increase costs of using referral facilities services; (ii) abolition of outpatient departments – leaving only the inpatient and specialised departments; (iv) provision of incentives for doctors at referral facilities to visit health centres regularly to deal with difficult cases; (v) strengthen the diagnostic capabilities of health centres; and (vi) introduction of models of drug supply that would ensure availability of essential medicines in health centres and dispensaries.'
- (j) *Improve planning, monitoring and evaluation (PME):* (i) adapt the operational PME guidelines that are internationally available to each country's situation; (ii) strengthen costing, budgeting and PME capacity at each health facility level to use the guidelines; (iii) develop a PME schedule and communicate it to health facilities; (iv) build a district level peer review mechanism; (v) ensure that there is feedback to each health facility from MoH/HQ, preferably from either the office of the Minister, permanent secretary or director of medical services (85,86).
- (k) *Institutionalise health facility efficiency monitoring:* (i) familiarise the policy makers, managers and economists (and planners) at the Ministry of Health with the technical efficiency, allocative efficiency and total factor productivity concepts; (ii) acquire computers (where they do not exist) and softwares (parametric and non-parametric) for estimating efficiency; (iii) organise hands-on training for MoH economists and planners (and where possible district health managers) in the use of the efficiency measurement softwares; (iv) adopt the available efficiency data collection questionnaires/instruments; (v) undertake a pilot study among a few different level health facilities and revise the data collection instruments accordingly; (vi) make the data collection instruments part of the national health information systems; (vii) decide on the frequency of reporting of the inputs (quantities and prices) and outputs by

those incharge of health facilities; (viii) the analysis could be undertaken at the district level (MoH/HQ support) with a view to identifying causes of inefficiencies, developing strategies for improving efficiency and implementing them; (ix) establish efficiency database at MoH/HQ and at each health district headquarters (11).

- (l) *Improve coordination mechanisms:* Countries that already do not have effective partner coordination mechanisms, they are strongly encouraged to develop Sector Wide Approaches (SWAs) with the following basic attributes: (i) a country-led sustained partnership consisting of various sectors (e.g. health, water and sanitation, local government, education, transport, planning and finance), representatives of various health care providers, civil society and donor agencies; (ii) a clear goal, which is linked to national health vision; (iii) a coherent sector – an institutional structure and national financing programmes; (iv) common management arrangements for the disbursement and accounting of funds, procurement of goods and services, and monitoring sectoral performance; partnership agreements and working arrangements; and (v) a collaborative programme of work focusing on sectoral policy and strategy, sectoral resource projections, financing and spending plans, consistent with a sound mid-term expenditure framework (87).

### *Monitoring of equity*

Since there are important economic, social and moral reasons for investing in efforts to reduce social inequities in health, reduction of health care and health inequities ought to be a fundamental principle in each country's health policy and strategy. Restricted access to essential health care is avoidable and morally unacceptable. Countries intent on developing a strategic plan to deal with inequities in health needs to go through following steps (88): consider the situation, assess the extent of the problem and identify gaps in the information; decide on the policy goals and objectives; consider the possible points of intervention for a strategy to implement the policy and identify potential conflicts

of interests that need to be addressed; weigh up the best organisational arrangements and financial requirements and designate responsibility and resources for dealing with these; set up a monitoring and evaluation system.

#### ***Development of comprehensive health financing policy and legislation***

A policy is an agreement or consensus on the issues, goals and objectives to be addressed, the priorities among those objectives and the main directions for achieving them (89). Its contents would consist of: introduction (situation analysis), vision, guiding principles, general policy objectives, policy orientations, implementation framework, monitoring and evaluation mechanisms, conclusion, bibliography, annexes (89). Countries that do not already have a health financing policy will need to develop one. It should be underpinned, among others, by the principles of equity, protection of individuals from catastrophic (impoverishing) cost of illness, efficiency, decentralisation, inter-sectoral coordination and sustainability. The policy will need to be legislated to make it enforceable.

#### ***Development of comprehensive health financing strategic plan***

Once the health financing policy has been developed, there will be need for health development partners to rally their support behind countries to enable them to develop a comprehensive health financing strategic plan with a clear roadmap of how a country plans to transit from the current health financing state dominated by inequitable, catastrophic and impoverishing direct out-of-pocket payments to a scenario of universal coverage.

Once again development partners will have to resist the temptation of taking over the leadership of the development of the strategic plan. The process has to be country led to ensure development of relevant capacities and ownership of the plan and its implementation. Even where relevant capacities are limited, the development partners will have to mimic the role of a midwife, who does take over the birthing process but instead works with a pregnant woman during antenatal care to prepare for the birth, and stands by her side during labour, encouraging her to breath-in and out and to push the baby.

The strategic plan will most likely have the following components: background, vision, mission, goal, guiding principles, objectives, targets, strategic thrusts, implementation framework (specifying the roles of the various stakeholders), partnership for plan implementation, and monitoring and evaluation (90). The plan should be incorporated into the national development frameworks, e.g. the Poverty Reduction Strategies Papers and the Medium-Term Expenditure Framework.

#### ***Strengthen the safety nets (exemption and waiver mechanisms)***

While countries are preparing for transition from a health financing system dominated by direct out-of-pocket payments to a system dominated by prepayment for health care, there will be need to strengthen the safety nets (exemption and waiver mechanisms) within the existing health financing system, to ensure that the vulnerable population groups (e.g. physically disabled, women and children) and the poor (financially challenged) are adequately protected. There will be need to develop a community grown criteria for determining those without the ability to pay, far much before they are in need of health services and to grant them exemption or waiver cards. In short, it is important to develop and implement exemption mechanisms in a responsive manner that does not humiliate or erode the dignity of the poor.

A number of courses of action that could help strengthen health care exemption policy are implied by Masiye (47): increase community awareness of the exemption policy; decrease the direct (including transport) and indirect costs of poor people participation; strengthen administrative capacity for monitoring and supervision, interpreting and applying exemptions; compensate health facilities for exemptions; increase funding for close-to-client health facilities in localities where the poor are concentrated; and strengthen political support for exemptions.

In communities that have community based prepaid health insurance schemes, it will be important for the government to identify those without the ability to pay premiums, and to make premium payments on their behalf.

For countries that decide to eradicate out-of-pocket payments, that needs to be carefully

managed to avoid negative impact on the national and district health systems, and on the voluntary health insurance schemes. Gilson and McIntyre (51) proposed seven practical actions that countries could take to mitigate negative effects out-of-pocket payments removal.

#### *Increase in execution rates of programme funding*

Countries should ensure that bottlenecks at all levels (national, provincial, districts, sub-districts and health facilities) of the national health system are eliminated in order to increase execution rates of health sector funding in national budgets and Medium-Term Expenditure Frameworks.

### CONCLUSION

The key findings of this study were that: 44 countries spent less than 10.5% of their GDP on health; 27 countries allocated less than 9.1% of their national budget on health; total expenditure on health per person per year was less than US\$21 in 30 countries; government expenditure on health per person per year was less than US\$10 in 29 countries; over 50% of the total expenditure on health were from government sources; private spending constituted over 40% of the total expenditure on health in 31 countries; out-of-pocket spending on health constituted over 90% of private health expenditure in 26 countries; 17 countries received over 25% of their total resources for health from external sources; there has been no significant change in the composition of health financing sources between 1998 and 2002.

A review of the published health financing literature on countries of the African Region indicate that: out-of-pocket payment exemption policy does not exist in many countries and even when it does exist exemption mechanisms are not effective in assuring access to care for the poor; inequities are rampant; waste of resources due to technical and allocative inefficiencies in health systems is common; payment mechanisms for human resources for health and institutions do not engender incentives for performance; mechanisms for coordinating partner support at country level are either non-existent or weak; foreign aid is unpredictable, unstable, unsustainable and ineffective.

There is need for countries to introduce and deepen health financing reforms in order to better

protect the vulnerable, the poor and the near-poor from impoverishing health costs, mobilise more resources, and make better use of them.

In order to improve performance of health financing function, countries should consider implementing a number of policy interventions: strengthen health sector capacity to advocate locally and internationally for increased funding for health; increase investments in building of health financing capacities; boost capacities for health economics evidence generation and utilisation in decision-making (including costing, budgeting, planning, monitoring and evaluation capacities at all levels of the health care system); improve efficiency in use of available (and expected) domestic and external health sector resources; monitor and address inequities in health financing; develop health financing policy and comprehensive strategic plan (with a clear roadmap for transition from the status quo dominated by Oop to a visionary state of universal coverage); strengthen out-of-pocket payments exemption policies and mechanisms to assure access to health care for the vulnerable and the poor; managed removal of direct out-of-pocket payments (for countries that choose to); strengthen/develop health development coordination mechanisms.

### LIST OF ABBREVIATIONS USED

CAM	- Carte d'Assurance Maladie
CBHI	- Community Based Health Insurance
CEA	- Cost Effectiveness Analysis
DEA	- Data Envelopment Analysis
DRG	- Diagnosis Related Group
EU	- European Union
GDP	- Gross Domestic Product
GNI	- Gross National Income
HRH	- Human Resources for Health
MOH	- Ministry of Health
MDG	- Millennium Development Goals
MHO	- Health Maintenance Organisation
MOH/HQ	- Ministry of Health Headquarters
NHA	- National Health Accounts
OAU	- Organisation of African Unity
Oop	- Out-of-pocket payment
PME	- Planning, Monitoring and Evaluation
SHI	- Social Health Insurance
SIN	- Supplier Induced Need
SID	- Supplier Induced Demand



Swap – Sector-wide Approach  
 UN – United Nations  
 WHO – World Health Organisation  
 WHO-CHOICE – Choosing Interventions that are Cost-Effective

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### REFERENCES

1. United Nations. *United Nations Millennium Declaration*. New York: United Nations. 2000.
2. Organisation of African Unity. *Abuja declaration on HIV/AIDS, tuberculosis and other related infectious diseases*. Addis Ababa: Organisation of African Unity. 2001.
3. United Nations. *The third United Nations Conference on the least developed countries: towards development and social stability*. New York: United Nations. 2001.
4. African Union. *Maputo declaration on Malaria, HIV/AIDS, Tuberculosis, and other related infectious diseases*. Addis Ababa: African Union. 2003.
5. Evans D.B., Tandon A., Murray C.J. and Lauer J.A. Comparative efficiency of national health systems: Cross national econometric analysis. *Brit. Med. J.* 2001; **323(7308)**: 307-310.
6. Kirigia J.M., Emrouznejad A., Cassoma B., Zere E.A. and Barry S. Efficiency change, technical progress, and productivity growth among Municipal hospitals in Angola. Brazzaville: WHO. 2005.
7. Osei D, D'Almeida S., George M.O., Kirigia J.M., Mensah A.O. and Kainyu L.H. Technical efficiency of public district hospitals and health centres in Ghana: a pilot study. *Cost Effectiveness and Resource Allocation*. 2005, 3:9. URL: <http://www.resource-allocation.com/content/3/1/9>.
8. Kirigia J.M., Emrouznejad A., Sambo L.G., Munguti N. and Liambila W. Using data envelopment analysis to measure the technical efficiency of public health centers in Kenya. *J. Med. Systems*. 2004; **28(2)**: 155-166.
9. Kirigia J.M., Emrouznejad A. and Sambo L.G. Measurement of technical efficiency of public hospitals in Kenya: using Data Envelopment Analysis. *J. Med. Systems*. 2002; **26(1)**: 39-45.
10. Mbeeli T., Kapenambili W. and Asbu E.Z. The technical efficiency of district hospitals in Namibia, Windhoek: Government of the Republic of Namibia. 2004.
11. Renner Ade, Kirigia J.M., Zere A.E., Barry S.P., Kirigia D.G., Kamara C. and Muthuri H.K. Technical efficiency of peripheral health units in Pujehun district of Sierra Leone: a DEA application. *BMC Health Services Research*. 2005; **5**: 77. [www.biomedcentral.com/1472-6963/5/77](http://www.biomedcentral.com/1472-6963/5/77).
12. Kirigia J.M., Sambo L.G. and Scheel H. Technical efficiency of public clinics in Kwazulu-Natal province of South Africa. *East Afr. Med. J.* 2001; **78(3)**: S1-S13.
13. Kirigia J.M., Sambo L.G. and Lambo E. Are public hospitals in Kwazulu/Natal province of South Africa technically efficient? *Afr. J. Hlth. Sci.* 2000; **7(3/4)**: 24-31.
14. Zere E.A., Addison T. and McIntyre D. Hospital efficiency in Sub-Saharan Africa: Evidence from South Africa. *South Afr. J. Economics*. 2000; **69(2)**: 336-358.
15. Masiye F., Kirigia J.M., Emrouznejad A. and Chimfwembe D. Efficiency of health centres in Zambia: using Data Envelopment Analysis. *J. Med. Syst.* (in press).
16. Masiye F., Ndulo M., Roos P. and Odegaard K. A comparative analysis of hospitals in Zambia: a pilot study on efficiency measurement and monitoring. In: Seshamani V., Mwikisa C.N., Odegaard K. (editors). *Zambia's Health Reforms Selected Papers, 1995-2000*. Lund: KFS AB. 2002: 95-107.
17. World Health Organisation. *Basic documents*. Geneva, WHO. 2005.
18. World Health Organisation. *The world health report 2000 – health systems: Improving performance*. Geneva: WHO. 2000.
19. Mills A.J. and Ranson M.K. The design of health systems. In: Merson M.H., Black R.E., Mills A.J. (editors). *International public health - Diseases, Programmes, Systems, and Policies*. Gaithersburg: Aspen Publishers. 2001; 515-557.
20. Carrin G. and James C. Social health insurance: key factors affecting the transition towards universal coverage. *Int. Soc. Security Review*. 2005; **58(1)**: 45-64.
21. Murray C.J.L. and Frenk J. A framework for assessing the performance of health systems. *Bull. WHO.* 2000; **78(6)**: 717-731.
22. World Health Organisation. *The world health report 2005 – making the life of every mother and child count*. Geneva, WHO. 2005.
23. World Health Organisation. *Guide to producing*

- National Health Accounts, Geneva, WHO.2003.
24. World Health Organisation. *Macroeconomics and health: Investing in health for economic development*. Geneva: WHO. 2001.
  25. Kirigia J.M., Sambo L.G., Aldis W. and Mwabu G. Impact of disaster-related mortality on gross domestic product in the WHO African Region. *BMC Emergency Medicine*. 2004; **4**: 1. (<http://www.biomedcentral.com/1471-227X/4/1>).
  26. Akin J.S., Birdsall N. and de Ferranti D. *Financing health services in developing countries: An agenda for reform*. Washington, DC. World Bank. 1987.
  27. de Ferranti D. Paying for health services in developing countries: An overview. World Bank Working Papers Number 721. Washington, D.C. World Bank. 1987.
  28. Griffin C. User fees for health care in principle and practice. Washington, D.C. World Bank. 1988.
  29. Mwabu G., Mwanza J. and Liambila W. User charges in government health facilities in Kenya: Effect on attendance and revenue. *Hlth. Policy and Plan*. 1995; **10**: 164-170.
  30. Blas E. and Limbambala M. User payment, decentralisation and health service utilisation in Zambia. *Hlth. Policy Plan*. 2001; **16**: 19-28.
  31. Seshamani V. Trends in the utilisation and quality of health services in Zambia: 1992-1995. In: Seshamani V., Mwikisa C.N., Odegaard K. (Editors). *Zambia's health reforms selected papers 1995-2000*. Lund: KFS AB. 2002; 74-79.
  32. Waddington C. and Enyimayew K. The impact of user charges in Ashanti-Akim district, Ghana. *Int. J. Hlth. Plan. Management*. 1989, **4**: 17-47.
  33. Muela S., Mushi A. and Ribera J. The paradox of the cost and affordability of traditional and government health services in Tanzania. *Hlth. Policy Plan*. 2000; **15**: 296-302.
  34. Sauerborn R., Nougara A. and Eric Latimer E. The elasticity of demand for health care in Burkina Faso: Differences across age and income groups. *Hlth. Policy Plan*. 2002; **9**: 185-192.
  35. Ayivor E.C.K. The demand for child health care services in Northern Ghana. In: Mwabu G., Wang'ombe J., Okello D. and Munishi G. (editors). *Improving health policy in Africa*. Nairobi: University of Nairobi. 2004; 77-106.
  36. Ayivor E.C.K. Factors influencing the choice of clinical facilities during childbirth in Ghana. In: Mwabu G., Wang'ombe J., Okello D., Munishi G. *Improving health policy in Africa*. Nairobi: University of Nairobi. 2004; 106-120.
  37. Mwabu G., Wang'ombe J. and Nganda B. The demand for medical care in Kenya: An application of quantile regression. In: Mwabu G., Wang'ombe J., Okello D. and Munishi G. *Improving health policy in Africa*. Nairobi: University of Nairobi Press. 2004; 121-143.
  38. Mbanefoh G.F., Soyibo A. and Anywanwu J.C. Health care demand in Nigeria: Emerging policy issues and recommendations. In: Mwabu G., Wang'ombe J., Okello D. and Munishi G. (editors). *Improving health policy in Africa*. Nairobi: University of Nairobi Press. 2004; 57-76.
  39. World Health Organisation. *Evaluation of recent changes in the financing of health services*. Geneva: World Health Organisation. 1993.
  40. Gilson L. The lessons of user fee experience in Africa. *Hlth. Policy Plan*. 1997; **12**: 273-285.
  41. The Save the Children Fund. *An unnecessary evil? User fees for healthcare in low-income countries*. London: The Save the Children Fund. 2005.
  42. Mwabu G. and Wang'ombe J. Health service pricing reforms in Kenya. *Int. J. Soc. Econ*. 1997; **24**: 282-293.
  43. Hongoro C., Musonza T.G., Macq J. and Anozie A. A qualitative assessment of the referral system at district level in Zimbabwe: implications on efficiency and effective delivery of health services. *Central Afr. J. Med*. 1998; **44**: 93-97.
  44. Mwabu G.M. Referral systems and health care seeking behaviour of patients: an economic analysis. *World Dev*. 1989; **17**: 85-92.
  45. Gilson L., Russell S. and Buse K. The political economy of user fees with targeting: developing equitable health financing policies. *J. Int. Dev*. 1995; **7**: 69-401.
  46. Gilson L. and Russel S. User fee policies to promote health service access for the poor: A wolf in sheep's clothing? *Int. J. Hlth. Serv*. 1997; **27**: 359-379.
  47. Masiye F. Analysis of health care exemption policy in Zambia: Key issues and lessons. In: Audibert M., Mathonnat J., de Roodenbeke E. (editors). *Le financement de la sante dans les pays d'Afrique et d'Asie a faible revenu*. Paris: Karthala, 2003; 139-159.
  48. Huber J. Ensuring access to health care with introduction of user fees: a Kenyan example. *Soc. Sci. Med*. 1993; **36**: 485-494.
  49. Nabyonga J., Desmet M., Karamagi H., Kadama P.Y., Omaswa F.G. and Walker O. Abolition of cost-sharing is pro-poor: evidence from Uganda. *Hlth. Policy Plan*. 2005; **20**: 100-108.
  50. McIntyre D., Thiede M., Dahlgren G. and Whitehead M. What are the economic consequences of households of illness and of paying for health care in low- and

- middle-income countries? *Soc. Sci. Med.* (in press).
51. Gilson L. and McIntyre D. Removing user fees for primary care in Africa: The need for careful action. *Brit. Med. J.* 2005; **331**: 762-765.
  52. Drechsler D. and Jutting J.P. Private health insurance in low-and middle-income countries: Scope, limitations and policy responses. Paris: OECD Development Centre. 2005.
  53. Sekhri S. and Savedoff W. Private health insurance – implications for developing countries. *Bull. WHO.* 2005; **83**: 127-138.
  54. Bennett S. The role of community-based health insurance within health care financing system: A framework for analysis. *Hlth. Policy Plan.* 2004; **19**: 147-158.
  55. Ekman B. Community-based health insurance in low-income countries: a systematic review of the evidence. *Hlth. Policy Plan.* 2004; **19**: 249-270.
  56. Preker A., Carrin G., Dror D., Jakab M., Hsiao W.C. and Arhin-Tekorang D. Rich-poor differences in health care financing. In: Preker A.S., Carrin G. (editors). *Health financing for poor people – resource mobilisation and risk sharing.* Washington, D.C. The World Bank. 2004; 3-51.
  57. Krishnan C. and Jakab M. Review of the strengths and weaknesses of community financing. In: Preker A.S., Carrin G. (editors). *Health financing for poor people – resource mobilisation and risk sharing.* Washington, D.C. The World Bank. 2004; 52-117.
  58. Arhin-Tenkorang A. Experience of community health financing in the African Region. In: Preker A.S., Carrin G. (editors). *Health financing for poor people – resource mobilisation and risk sharing.* Washington, D.C. The World Bank. 2004; 158-197.
  59. Preker A.S., Carrin G., Dror D., Jakab M., Hsiao W. and Arhin-Tenkorang. Effectiveness of community health financing in meeting the cost of illness. *Bull. WHO.* 2002; **80**: 143-150.
  60. World Health Organisation. *Sustainable health financing, universal coverage and social health insurance (WHA58.33).* Geneva: WHO. 2005.
  61. Republic of Ghana, Ministry of Health. *National health insurance policy framework for Ghana.* Accra: WHO. 2004.
  62. International Labour Office. *Improving social protection for the poor: health insurance in Ghana.* Geneva: WHO. 2005.
  63. Carrin G., James C., Adelhardt M., Doetinchem O., Eriki P., Hassan M., van den Hombergh H., Kirigia J., Koemm B., Korte R., Krech R., Lankers C., Maina T., Okeyo T.M., Muchiri S., Mumani Z., Nganda B., Nyikal J., Onsongo J., Rakuom C., Schramm B., Scheil-Adlung X., Whitaker D. and Zipperer M. Health financing reform in Kenya: Assessing the social health insurance proposal. WHO. Geneva. 2005.
  64. Ojo K. and Sambo N. An assessment of social health insurance organisations in health care delivery in Nigeria. Ibadan: Fundex International Ltd. 2005.
  65. Carrin G. Social health insurance in developing countries: a continuing challenge. *Int. Soc. Security Review.* 2002; **55**: 57-69.
  66. Ron A., Abel-Smith B. and Tamburi G. Health insurance in developing countries: the social security approach. New Delhi: Oxford and IBH Publishing Co. 1990.
  67. Kirigia J.M., Sambo L.G., Nganda B., Mwabu G.M., Chatora R. and Mwase T. Determinants of health insurance ownership among S. African women. *BMC Health Services Research.* 2005; **5**: 17. ([www.biomedcentral.com/1472-6963/5/17](http://www.biomedcentral.com/1472-6963/5/17))
  68. International Labour Office. *Social health insurance: a guidebook for planning.* Geneva: WHO. 2005.
  69. The International Monetary Fund and The World Bank. *Aid financing and aid effectiveness. Development Committee.* Washington, C.D. The World Bank. 2005.
  70. G8 Gleneagles 2005. *Africa.* Perthshire: G8. 2005.
  71. United Kingdom Government: *The UK's contribution to achievement of the MDGs.* London: United Kingdom Government. 2005.
  72. Commission for Africa. *Our common interest – report of the Commission for Africa.* London: Commission for Africa. 2005. [www.commissionforafrica.org](http://www.commissionforafrica.org).
  73. Sharma R.R. *An introduction to advocacy: Training guide.* Washington, D.C. U.S. Agency Int. Dev. 1997.
  74. LaFond A.K., Brown L. and Macintyre K. Mapping capacity in the health sector: a conceptual framework. *Int. J. Hlth. Plan. Management.* 2002; **17**: 3-22.
  75. Silbiger S. *The 10-day MBA: a step-by-step guide to mastering the skills taught in top business schools.* London: Judy Piatkus. 1999.
  76. <http://www.phrplus.org/>.
  77. [http://www.who.int/health\\_financing](http://www.who.int/health_financing).
  78. <http://www.worldbank.org>.
  79. Kirigia J.M., Sambo L.G., Anikpo E., Karisa E. and Mwabu G. Health economics: potential applications in HIV / AIDS control in Africa. *Afr. J. Hlth. Sci.* 2005; **12**: 1-13.
  80. Evans D., Edejer TT. CHOICE: an aid to policy. *Afr. Hlth. Monitor.* 2005; **5**: 27-29.
  81. [www.who.int/evidence/cea](http://www.who.int/evidence/cea)
  82. Abel-Smith B. *An introduction to health policy, planning and financing.* London: Longman. 1994.
  83. World Health Organisation. *Mobilisation of domestic resources for health. Report of Working Group 3 of the Commission on Macroeconomics and Health.* Geneva:

- World Health Organisation. 2002.
84. <http://www.who.int/contracting>.
85. Kirigia J.M., Sambo L.G. and Lambo E. How to develop an operational plan for health. *East Afr. Med. J.* 2001; 78: S14-S19.
86. Sambo L.G. and Kirigia J.M. Evaluation of health-related programmes in Africa: a vision for 2020. *East Afr. Med. J.* 2001; 78: S20-S25.
87. Cassels A. *A guide to sector-wide approaches for health development: concepts, issues and working arrangements*. Geneva: World Health Organisation. 1997.
88. Dahlgren G. and Whitehead M. *Policies and strategies to promote equity in health*. Copenhagen: World Health Organisation Regional Office for Europe. 1992.
89. World Health Organisation Regional Office for Africa. *Guidelines for developing national health policies and plans*. Brazzaville: World Health Organisation Regional Office for Africa. 2005.
90. World Health Organisation Regional Office for Africa. *Regional Strategic Plan for Health Economics: 2006-2015*. Brazzaville: World Health Organisation Regional Office for Africa. 2005.