

# **Assessing the Impact of Health Financing Mechanism in Zambia**

**Joseph Chibuye  
Zambia**

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Royal Tropical Institute  
Development, Policy and Practice  
Vrije Universiteit Amsterdam  
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***Topic: Assessing the Impact of Health Financing Mechanisms in Zambia***

A thesis submitted in partial fulfillment of the requirement for the TropED Master of Science Degree in International Health

**By Joseph Chibuye  
Zambia**

**Declaration:**

Where other people's work has been used (either from a printed source, internet or another source), this has been carefully acknowledged and referenced in accordance with department requirements. This thesis "*Assessing the Impact of Health Financing Mechanisms in Zambia*" is my own work.

**Signature: Joseph Chibuye**

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## ***List of Acronyms***

AMCs	Advance Market Commitments
AIDS	Acquired Immune Deficiency Syndrome
BHCP	Basic Health Care Package
CMH	Commission on Macroeconomics and Health
CSO	Central Statistical Office
DFID	Department for International Development
GDP	Gross Domestic Product
GHP	Global Health Partnerships
GFATM	Global Funds to fight AIDS, Tuberculosis and Malaria
GAVI	Global Alliance for Vaccine and Immunization
HIV	Human Immuno-deficiency Virus
IMF	International Monetary Fund
IFFIm	International Finance Facility for Immunization
MDGs	Millennium Development Goals
MoH	Ministry of Health
MTEF	Medium Term Expenditure Framework
NHA	National Health Accounts
OOP	Out of Pocket Payments
OECD	Organisation for Economic Cooperation and Development
PBF	Performance Based Financing
PEPFAR	Presidential Emergency Plan for AIDS Relief
PRSP	Poverty Reduction Strategy Paper
STIs	Sexually Transmitted Infections
SWAps	Sector Wide Approaches
UNDP	United Nations Development Programme
UNAIDS	Joint United Nations Programme on AIDS
USAID	United States Agency for International Development
WHO	World Health Organisation
ZDHS	Zambia Demographic Health Survey

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## ***Abstract***

An adequately and well-managed financing mechanism of the public health care system has continued to elude many low income countries. Zambia is one of those countries whose health system has continued to struggle with inadequate and inequitably distributed resources. To date, Zambia has recorded slow progress in improving health outcomes, and meeting health targets has raised concerns about the country's capacity to sustainably finance its health care system, given the limited capacity for growth and inability to mobilise adequate domestic revenue. This has complicated government's ability to effectively respond to the health challenges the country is facing. Even with substantial external assistance, large gaps have remained between what resources are available and what are needed. Zambia's health challenges are further worsened by weak institutional capacity as well as low and ineffective spending that has undermined the effectiveness of the health care systems. The poor and vulnerable groups, who need health care the most, are the most affected by these shortcomings, especially the high reliance on user charges and other out of pocket expenditures on health, which are both impoverishing and provide a financial barrier to accessing needed care.

Both published and unpublished literature was reviewed on health financing in Zambia and other low income countries. There was no limitation on the date for the data reviewed, however much of literature covered the period from 1995-2010.

The findings of this study are that the various financing mechanisms in Zambia are not adequate and in most cases have priced the majority of the population out of accessing health care, especially the poor who need health care the most. Even with substantial external assistance, health outcomes do not appear to improve. This is worsened by the government's inability to generate adequate domestic resources and reliance on out of pocket payments which are regressive and are not sustainable.

## **Key Words**

Health Financing, Government Expenditure, Out of Pocket Payments, External Funding, Health Prepayment Schemes, Equity, Efficiency, Feasibility and Resource Generation



## **Chapter I – Introduction**

### **1.1. Background to the Study**

Zambia has undergone prolonged periods of slow economic growth over the last two decades, which have resulted in declining per capita income, dilapidated social infrastructure as well as poor health status of the majority poor. Despite initial progress in health status at independence, there has been limited and slow improvement, and most health indicators have appeared to worsen in recent years. Today Zambia faces an increasing inequity between the demand and supply of health services due to inadequate financing of its health care system by the government. Zambia is affected by a crisis in health financing, and the health care system has continued to struggle with insufficient and inequitably distributed resources. This is further compounded by the governments ineffective spending, limited capacity for domestic resource generation as well as lack of institutional capacity to convert external resources into meaningful health inputs.

### **1.2. Population and Demographic Characteristics**

Zambia is a landlocked country located in the Southern-Central part of Africa and is surrounded by eight countries namely Malawi, Botswana, Tanzania, Namibia, Mozambique, Angola, Zimbabwe and the Democratic Republic of Congo. Zambia covers an area of about 752,614 square kilometers of land and has an estimated population of 12 million people with an annual population growth rate of 2.9 percent per annum. Zambia is one of the most urbanized countries in Sub-Saharan Africa, with 43 percent of its population living in urban areas. The country is divided into nine provinces and 73 districts representing more than 70 different ethnic groups (CSO, 2005).

Zambia's population growth rate is relatively high compared to other Sub-Saharan African countries. One of the reasons for this high population growth rate is the high fertility rate which now stands at 6.1. The implication of this high population growth rate for the health sector, assuming a stable disease burden, is that resource allocations to the sector will have to increase at a corresponding rate to meet the demand, or efficiency in the sector has to continuously increase at the population growth rate (UNDP, 2007).

### 1.3. Health and Epidemiological Profile

**Table 1: Zambia's Health Status and Epidemiological Profile**

Indicator/Year	1996	2002	2008	Target	Possibility of achieving Goal by 2015	Status of supportive environment
Life Expectancy at birth	50	49.5	46	-	Unlikely	Good
Under 5 Mortality Rate per 1000 live births	195	168	119	63	Potentially	Good
Infant Mortality Rate per 1000 live births	10	95	70	36	Potentially	Good
Maternal Mortality Rate per 100,000	649	729	449	162	Unlikely	Weak
HIV/AIDS Prevalence Rate (%)	-	16	14	-	Likely	Good

Source: WHO, 2009; ZDHS 2001/2; CSO data base

Zambia has a mixed health status profile. While a few indicators have shown some steady improvements, a few others have remained static and yet still other indicators have worsened (See Table 1). For instance, life expectancy at birth has declined from around 50 years in 1996 to 46 years in 2008. Other indicators such as under-5 mortality and infant mortality rates have shown slow progress. In 1996 the under-5 mortality rate was 195 per 1000, while in 2008 it declined to 119 per 1000 live births. Maternal mortality rate has also declined from 649 in 1996 to 449 per 100 000 in 2008. The HIV/AIDS prevalence rate is still significantly high at 14% in 2008 from 16% in 2002. Although lower than neighbouring Botswana and Zimbabwe, the 14% prevalence rate is still among the highest in Sub-Saharan Africa.

It is for the above reasons that Zambia like other least developed countries has made a commitment to realize the Millennium Development Goals (MDGs) on health by 2015, being reducing child mortality, improving maternal health and combating HIV/AIDS, Malaria and other diseases (WHO, 2009).

### 1.4. Socio-Economic Context

For the past few years, Zambia has recorded a relative stable macroeconomic environment (See Table 2), with an annual Gross Domestic Product (GDP) growth rate of 5% per annum, a relatively stable exchange rate, reduction in inflation, declining interest rates, reduced external debt burden and increasing levels of trade (IMF, 2007; UNDP, 2008). The GDP per capita was estimated at US\$ 918 in 2007 (IMF, 2008).

However, despite the stable outlook, poverty and income inequality have remained uncharacteristically high, with almost 70% of the population living on less than US\$2 per day (UNAIDS, 2006). Zambia has a Gini coefficient of 0.51<sup>1</sup> and the high poverty and inequality levels in the country, although fluctuating over the years have resulted in preventable and treatable diseases taking an enormous toll on the poor and consequently increased pressure on the already constrained health sector (NHA, 2006). Zambia ranks 164 out of 182 countries on the Human Poverty Index and 166 out of 178 countries on the Human Development Index<sup>2</sup> (UNDP, 2009).

**Table 2: Zambia's Key Macroeconomic Indicators, 1999-2006**

Indicator/Year	1999	2000	2001	2002	2003	2004	2005	2006
Real GDP Growth (%)	2.2	3.6	4.9	3.3	5.1	5.4	5.2	6.0
Inflation Rate (%)	26.8	26.1	21.4	22.2	21.4	18.0	18.3	9.1
External Debt (US\$ billions)	-	6.3	7.3	6.5	6.5	7.1	-	-
Total Net Aid Flows (US\$ millions)	356	466	336	518	639	299	337	597
Grants	6.6	8.0	5.7	5.8	8.3	7.0	5.5	5.6
Revenues	18.8	17.7	19.4	19.2	17.9	18.0	18.3	17.4
Total Expenditures	27.2	26.5	27.9	29.7	27.2	27.1	23.2	23.0

Source: Ministry of Finance, Macroeconomic Indicators, 2005; IMF, 2007

### 1.5. Statement of the Problem

Table 3 below compares Zambia's health expenditure with a few selected Sub-Saharan Africa countries with similar economic and epidemiological profiles according to the National Health Accounts (NHA) data for the period 2003-2007. According to the table, only Malawi spends significantly more than all other countries in terms of total expenditure on health as a percentage of GDP. Zambia compares favorably with all other countries selected in terms of total expenditure on health as a percentage of GDP and has a relatively high per capita government expenditure on health compared to the other countries, except for Namibia and Malawi. Like most other countries, external funding to health in Zambia also contributes a significant portion of total expenditure on health.

<sup>1</sup> This income inequality index ranges from 0 (perfect equality) to 1 (perfect inequality).

<sup>2</sup> As before, a higher number indicates higher levels of poverty or lower levels of development respectively.

**Table 3: Selected Country Expenditures on Health<sup>3</sup>**

Country	Total Expenditure on Health as a percentage of GDP					Per Capita Government Expenditure on Health					External Resources for health as a % of Total Expenditure on Health				
	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007	2003	2004	2005	2006	2007
Kenya	4.5	4.3	4.4	4.5	4.7	23	23	25	27	30	15.2	17.1	19.8	18.6	24.1
Malawi	12.8	12.8	10.7	12.9	9.9	40	42	33	42	30	61.6	59.4	69.5	59.6	59.9
Mozambique	5.7	5.1	5.4	5.0	4.9	23	22	26	25	28	36.6	50.4	55.6	61.5	57.8
Namibia	6.5	6.5	7.3	7.2	7.6	170	166	193	183	196	3.0	9.7	16.9	22.4	10.6
Uganda	7.3	6.5	6.4	6.6	6.3	18	16	19	20	20	16.5	25.5	35.0	30.5	31.6
Lesotho	6.9	6.6	6.2	6.7	6.2	45	46	41	55	54	8.1	10.4	13.1	10.8	11.5
Zambia	6.6	6.6	7.0	6.4	6.2	41	40	43	46	46	32.0	34.2	42.5	38.1	33.1

Source: WHO National Health Accounts Country Health Expenditure Database ([www.who.int/nha/country](http://www.who.int/nha/country))

Given the relatively high total per capita health expenditure in Zambia (as shown in table 3), the country is expected to do well in selected MDG health indicators (outcomes). However, this is not the case. With the relatively high per capita spending on health, Zambia's health indicators are supposed to be better than what the table is showing, better than other countries spending less on health. For instance, table 4 shows that Zambia spent US\$ 23 per capita on health in 2002 compared to Kenya's US\$ 19, yet Kenya has the under-5 and infant mortality rates of 111 and 74 per 1000 live births respectively, compared to Zambia's 168 and 95 per 1000 live births respectively. The same comparisons with Uganda also show that Zambia is not doing well.

**Table 4: Selected Country Health Outcomes (MDGs Health Related Indicators)**

	Total per capita expenditure on health (US\$) 2002	Per capita govt. health expenditure (US\$) 2002	Under-5 Mortality Rate per 1000 live births	Infant Mortality Rate per 1000 live births	Maternal Mortality Rate per 100,000 live births	Tuberculosis Mortality rate per 100,000 population	Malaria Mortality per 100,000 population
Kenya	19	8	111	74	7000	80	-
Mozambique	11	8	206	146	1000	52	263
Malawi	14	4	197	117	1800	49	212
Namibia	99	70	62	38	300	44	-
Tanzania	13	5	156	100	1500	47	181
Uganda	18	8	147	89	880	61	151
Zambia	23	8	168	95	749	89	158

Source: World Health Report 2005, UN Millennium Goals indicator data base and Country NHA Reports

Zambia has been reforming its health care system since independence, in an attempt to equitably and efficiently achieve national health goals in a sustainable manner. These

<sup>3</sup> Countries were selected based similar socio-economic development, disease burden and epidemiological profiles

reforms have generally attempted to address questions on how sufficient funds should be raised and allocated in order to pay for health care services, and most importantly addressing questions of who should pay and who should benefit from health care spending. Zambia has immense health challenges which are worsened by weak institutional capacity as well as low and ineffective spending that has undermined the effectiveness of the health care systems (NHA, 2006).

Zambia's low per capita income, limited capacity for domestic revenue mobilization and persistent health system bottlenecks have complicated governments' ability to effectively respond to the health challenges the country is facing. Even with substantial external assistance, large gaps have remained between what resources are available and what are needed (WHO, 2007). A high and unrelenting disease burden has further impeded the government's ability to redress the generally declining health status as the budgetary allocation for health is far from the 15% commitment to health as enshrined in the Abuja Declaration<sup>4</sup>.

The general poor health status in Zambia is affected by serious crises in health financing. Zambia's health system has continued to struggle with meager and inequitably distributed resources. The poor and vulnerable groups, who need health care the most, are the most affected by these shortcomings, especially the high reliance on user charges and other Out of Pocket (OOP) expenditures on health, which are both impoverishing and provide a financial barrier to accessing needed care (Preker and Carrin, 2005).

## **1.6. Study Objectives**

Given the generally poor health performance and limited health care financing in Zambia, this study will critically assess the current health financing mechanisms in Zambia using the criteria of equity, efficiency, feasibility and sustainable resource generation. This study will further assess potential financing alternatives that could complement existing health financing mechanisms and new and more efficient ways of working including Performance Based Financing (PBF), Innovative Financing Mechanisms based on equity, efficiency, feasibility and sustainable resource generation.

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<sup>4</sup> Abuja Declaration is a pledge made by African Heads of State in 2000 to allocate 15% of the total budget to health.

### **1.6.1. General Objective**

- To assess current and prospective financing arrangements in terms of equity, efficiency, feasibility and sustainable resource generation in order to meet basic health needs in Zambia

### **1.6.2. Specific Objectives**

- To critically evaluate current health financing mechanisms in Zambia including government (taxation), external funding and Out of Pocket Payments based on equity, efficiency, feasibility and sustainable resource mobilization
- Identify alternative health financing mechanisms and alternative ways of working (i.e. Innovative Financing Mechanisms and Performance Based Financing) that could work in Zambia in order to complement existing financing mechanisms

## Chapter II – Research Methodology

### 2.1. Research Design

This is a descriptive study based on desk top review of literature on health financing from different sources including journals, reports, published articles and studies. Literature on health financing will be analysed based on a conceptual framework to be developed (Refer to chapter 3) and using the criteria of efficiency, equity, feasibility and sustainable resource generation. These are the criteria that will also be used to answer the study objectives.

### 2.2. Search Strategy and Data Sources

Data to review the literature was searched and accessed through a number of databases covering health economics, health literature and social science (See Box 1). A search was also done on the reference lists of all the relevant studies and existing reviews. The search strategy was combined to look for terms in subject titles and within the text relating to health financing. There was no limitation on dates and only studies from Zambia and other low income countries from Sub-Saharan Africa as defined by the World Bank and WHO were included in the search. The study also utilized published and unpublished grey literature and review reports from government and donor agencies.

#### Box 1. Search Terms and Data Sources used for literature

**Search Terms: Resource Generation (Donors, Government Taxation, Firms, Out of Pocket Payments), Equity, Efficiency, Feasibility, Resource Pooling and Purchasing**

Databases and Search engines accessed through KIT and Vrije University libraries:

- **Science Direct** [www.sciencedirect.com](http://www.sciencedirect.com)
- **Eldis** [www.eldis.org](http://www.eldis.org)
- **PubMed** [www.pubmed.com](http://www.pubmed.com)
- **World Bank** [www.worldbank.org](http://www.worldbank.org)
- **WHO** [www.who.int](http://www.who.int)
- **Ministry of Health – Zambia**, [www.moh.gov.zm](http://www.moh.gov.zm)
- **Google Scholar** [www.scholar.google.com](http://www.scholar.google.com)

### **2.3. Limitations of the Study**

This is a literature review study and relied on published secondary data sources and unpublished grey literature. Although there are a lot of studies on health financing in general, there is very limited literature on the impact of health financing mechanisms on Zambia's health care system. Much of the literature used was from other Sub-Saharan Countries that was relevant to the Zambian context.

### **2.5. Ethics**

This is a literature review study involving secondary data sources only. Therefore, there was no need to obtain ethical clearance in Zambia, as there was no primary data collection involved.



## **Chapter III – Conceptual and Operational Framework**

### **3.1. Introduction to the Conceptual Framework**

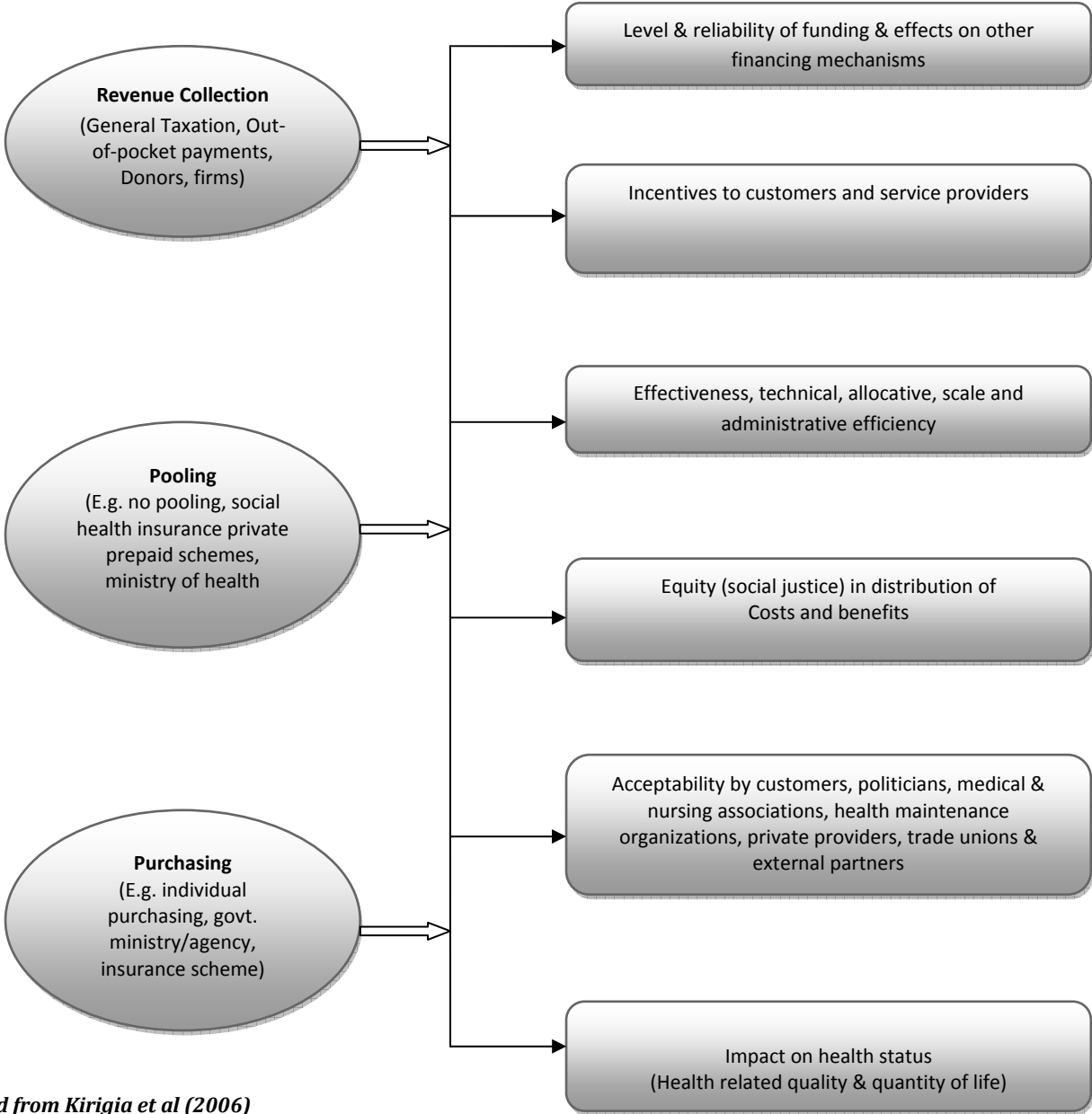
An adequately and well-managed financing mechanism of the public health care system has continued to elude many low income countries. This is more especially in Zambia, whose health system has continued to struggle with meager and inequitably distributed resources. The WHO Commission on Macroeconomics and Health (CMH) has called for more investments in health by donor countries and governments in low income countries to attain the average of \$34 per head expenditure required to make basic health care available (WHO, 2001). As argued in Preker and Carrin (2004), how any particular health care system is financed has profound effect on the population's access to health care, and ultimately on the health status of each individual. Therefore it is imperative that low income countries evaluate all mechanisms which make up the system of financing.

The goal of any health financing mechanism is to make funding available, ensure choice and purchase of cost-effective interventions, give appropriate financial incentives to providers and ensure that all individuals have access to effective health services (WHO, 2006). Therefore, the performance of any health financing system largely depends on its ability to generate revenue in an equitable and efficient manner, the extent to which the financial risk is spread among the rich and poor, the healthy and the sick, extent to which the poor are subsidized, efficient purchasing of health inputs and services, and the prevailing macroeconomic environment such as economic growth, unemployment, size of the informal sector compared to the formal sector as well as governance (WHO, 2006).

The conceptual framework below was adapted from Kirigia et al (2006), and further developed to include 3 key functions of health financing namely; Revenue collection (which concerns the sources of funds, their structure and the means by which they are collected), Pooling of funds (which addresses the unpredictability of illness particularly at the individual level, the inability of individuals to mobilize sufficient resources to cover unexpected health care costs and consequently the need to spread health risks over as broad a population group and period of time as possible) and Purchasing (which covers the transfer of pooled resources to health service providers in such a way that

appropriate and efficient services are available (Gottret & Schieber, 2006; McIntyre, 2007).

**Figure 1: Health Financing Conceptual Framework**



*Adapted from Kirigia et al (2006)*

Accordingly, the performance of any health care financing mechanism should be determined on the basis of efficiency, equity, sustainable resource generation and feasibility. These criteria are widely used in analyzing and evaluating health care financing, and are also used to identify financing mechanisms that exemplify best practice (McIntyre, 2007).

### **3.2. Efficiency**

Determining whether a health care financing mechanism is efficient can be difficult. However, any mechanism that is able to generate a relatively large amount of financial resources and while at the same time averting the need for multiple funding, with each generating only a limited amount of resources is said to be efficient. Additionally, any mechanism by which the cost of fund collection and administrative costs are low, thereby leaving as much revenue as possible for actual health service provision is considered to be an efficient financing mechanism of health care (McIntyre, 2007).

Efficiency in respect to a source of financing involves a number of elements, including administrative (or allocative) efficiency or technical efficiency. Therefore, when analyzing efficiency, it is important to understand the extent to which a particular financing mechanism promotes allocative efficiency (“doing the right thing”) and technical efficiency (“doing it the right way”) in the use of resources. Allocative efficiency according to McIntyre (2007) refers to the allocation of resources among different levels of care e.g. tertiary care versus primary health care, and among services dealing with different areas of care such as immunization, tuberculosis, hypertension etc.

“Doing the right thing” through allocative efficiency means allocating resources to those services dealing with the heaviest burden of ill-health in the community for which effective interventions exist and, within those services, giving priority to the most cost-effective interventions i.e. interventions offering the lowest cost per unit of health outcome (McIntyre, 2007). “Doing it the right way” through technical efficiency implies providing resources to the maximum number of fundable services and minimizing the cost of each service without compromising quality of care, i.e. avoiding waste. As observed in McIntyre (2007) and Merson et al (2006), administrative or technical efficiency relates to the management of the system and is the difference between gross yield (all funds that are collected) and net yield (that portion of gross yield that is actually available for the purposes of health service delivery).

### **3.3. Equity**

Defining what constitutes equity in health financing has generated much debate. Where agreements have been reached, equity has meant to imply a situation where individuals are able to contribute to health care funding according to their ability to pay and benefit from health services according to their need for care (Wagstaff and Van Doorslaer, 1993). As in McIntyre (2007), an equitable health care financing system is therefore often regarded as one that involves cross-subsidies from the rich to the poor and from the healthy to the ill, and these cross-subsidies should be seen to ensure that no household is impoverished by its needs to for health services and that an unexpected health care cost does not fall solely on an individual or a household (i.e. avoiding so-called “catastrophic health expenditures”).

Following the ability to pay argument, it becomes imperative that any health financing mechanism should, as far as possible, avoid any form of regressive financing where people in low income brackets contribute a higher percentage of their income to health care than higher income groups. Instead, a progressive system should be advocated where high income groups should contribute a higher percentage of their income than low income groups.

However, when discussing equity in financing, it is important to distinguish between horizontal and vertical equity. Horizontal equity is about the equal treatment of equal needs. In other words, people should be able to use health services according to their health needs. While vertical equity is about unequal treatment for unequal needs. In other words, vertical equity is about preferential treatment for those with greater health needs, for instance the elderly have more health needs than the young (Macinko & Starfield, 2002; Mooney & McIntyre, 2007). With respect to vertical equity, a progressive system is one in which lower income groups pay a lower proportion of their income than higher income groups. While a regressive system is one in which lower income groups pay a higher share of income than higher income groups. Whereas a proportional or neutral system is one in which all income groups pay the same percentage of their income (Merson et al, 2006).

### **3.4. Feasibility**

This is a criterion which is often overlooked when assessing health care financing mechanisms, but often raises very critical questions such as acceptability and support by stakeholders i.e. customers, politicians, medical and nursing associations, private providers and external partners. This criterion also assesses whether there is adequate administrative capacity, such as actuarial expertise, information systems etc, to ensure the successful implementation of a particular financing mechanism (Kirigia et al, 2006; McIntyre, 2007).

### **3.5. Sustainable Resource Generation**

Sustainability is a very important criterion in health care financing as it says something about the long term potential for generating a stable flow of revenues. The opposite of this is that if revenue generated by a financing mechanism is liable to frequent and considerable fluctuations, the financing mechanism in place cannot be considered reliable and needs to be replaced by a mechanism that is more predictable in the medium to long run. Sustainability also relates to the ability of a financing mechanism to maintain both its level of funding in the long run and to expand its level of funding over time as the need for health care grows (McPake and Kutzin, 1997; McIntyre, 2007).

Sustainable resource generation implies ongoing long-term, decisive planning for gradual increases in domestic funding for health services. For instance large fluctuations in aid flows have made recurrent cost financing in health care (i.e. financing of wages of staff) very problematic (Atim et al, 2008). Global health initiatives such as GAVI and the GFATM have provided funds to enable or help low income countries to initiate or expand an immunization or prevention programme, but often requires the recipient country to develop a plan of sustaining the programme by way of increasing domestic funding so as to ensure its sustainability (McIntyre, 2007). However, most low income countries are resource constrained and once the domestic sources dry up; this has endangered the provision of health care. Sustainability can only be attained through domestic resource mobilization. Domestic resource mobilization brings with it a sense of ownership of the development process, as the country becomes responsible for its own development and therefore is forced to carefully look at how it spends its resource by showing results to the citizens (tax payers).

## **Chapter IV – Overview of the Health System and Reforms**

### **4.1. Background to Health Reforms in Zambia**

In 1992 Zambia initiated comprehensive health sector reform with a desire to promote equity of access to cost effective quality health care as close to the family as possible and the primary strategy for achieving this vision was through decentralization of resources and responsibilities to the district level and below (MoH, 1998). These reforms also focused on financing of health services in situations where the central government was unable to raise sufficient resources and were reluctant to continue its dependence on donor funding (Blas and Limbambala, 2001).

The reform process was ideologically driven, and emphasis was placed on the role of the market, including privatization of care provision as well as partially moving the responsibility for health financing from the government to service users through direct payments (OOPs), private insurance and community financing mechanisms.

From the onset, health reforms in Zambia were inspired by the ideas of primary health care as expressed in the Alma Ata Declaration<sup>5</sup> and in the WHO's 'Health for All' strategy (Haines et al, 2007; WHO, 2009). However, during the reform process the approach was tailored to be in line with the thinking behind the World Bank's 'World Development Report 1993' and 'Better Health in Africa', which shifted its focus on cost-effectiveness and financial sustainability (Kalumba, 1997). Together with other low income countries, Zambia was a front runner in attempting to improve the performance of the health sector during the first half of the 1990s via aforementioned reforms.

The main elements of these reforms were decentralization, introduction of user charges and pooling of donor resources in the hope of dragging the health systems of low and middle income countries out of their deep inefficiencies and donor dependence (Cassel and Janowski, 1997). These reforms also led to the creation of semi-autonomous hospital management boards for all major hospitals, and during the early 1990s a new legislation mandated the formation of District Health Boards in all districts to oversee health services at the district level and the Central Board of Health was created to

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<sup>5</sup> Alma Ata Declaration was a resolution agreed at an international conference on Primary Health Care (PHC) in 1978, that identified PHC as the key determinant to the attainment of the goal of Health for All

monitor, integrate and coordinate the programs of the Health Management Boards. As a result, the Ministry of Health was no longer directly involved in the health service delivery, with its role limited to policy making and regulation of the health sector (Bossert et al, 2000).

These reforms were implemented under the framework of Sector Wide Approach (SWAp), which called for resources from the government and other stakeholders to be pooled and coordinated to ensure efficient resource utilization. In 1993, a rise in disease burden and diminishing resources led the government to introduce cost sharing mechanisms through user charges, with exemptions for children under five and adults over 65, and for certain priority services such as maternal and family planning services, immunizations and chronic diseases including HIV/AIDS, Tuberculosis (TB), Sexually Transmitted Infections (STIs) and in case of disease outbreaks such as Cholera and Dysentery (PRSP, 2000).

However, after fifteen years of reforms and implementing user charges, concerns were raised on the role of user charges in a health setting where poverty is widespread and key health indicators are showing a decline. Against this background, in 2006 the government decided to abolish user charges for health care at all public health care facilities (Masiye et al, 2008). The common feature of the reform process was the removal of public subsidies and withdrawal of direct government provision of many social services including health care (Masiye et al, 2008).

#### **4.2. Structure of the Health Care System**

Zambia's health care system is organized based on a pyramidal referral structure consisting of central, provincial and district hospitals, and health centers. Zambia is divided into 73 districts and nine provinces, and each of the nine provinces has one general hospital, and in almost 40 districts there is one district hospital. Within districts, there are health centers which are the lowest level of health facility in Zambia. Of the 1,327 health care facilities in Zambia, 85% are government-run facilities (see before), while 9% are private sector facilities and 6% are religious affiliated (mission) facilities.

The distribution of these health facilities across the provinces is given in table 5. It conceals great variation in access across urban and rural areas; 99% of urban

households live with 5 kilometers of a health facility compared to 50% of rural households (PRSP, 2000).

**Table 5: Summary of Hospitals by Level and Province**

Name of Province	Number of Hospitals by Level			Number of Hospitals
	1st Level	2nd Level	3rd Level	
Central	7	2		9
Copperbelt	11	2	3	16
Eastern	7	2		9
Luapula	6	1		7
Lusaka	6		2	8
Northern	5	3		8
Northwestern	7	2		9
Southern	14	5		19
Western	10	1		11
<b>Total</b>	<b>74</b>	<b>18</b>	<b>5</b>	<b>97</b>

Source: Ministry of Health, 2005

Zambia's health care system is largely dominated by the public sector. Other players in the system include, the private for profit and not for profit sectors, insurance companies and the traditional health care providers (NHA, 2006).

### 4.3. Health Financing Policy

Zambia's health financing policy is based on the rights based approach that considers health care as a basic human right that should not only be availed to all citizens but also accessible to all (UNDP, 2009). This policy presumes a Basic Health Care Package (BHCP) which defines a set of basic health services expected to be delivered at various levels of the health care delivery system. The BHCP is assumed to be the basis of the health system with cost-effective, evidence-based and affordable long term interventions that are complemented with a functioning referral system. The underlying principles that form the basis for funding of the BHCP are effectiveness of resource allocation and resource use, access to effective care, equity in health outcomes, and the greatest impact on health status by addressing the highest occurring diseases (NHA, 2006).

The country's health financing policy has explicitly enshrined a policy goal that strives for equity in health care financing. However, ensuring equity in health financing is more challenging in resource constrained health system like Zambia's which heavily relies on private revenues such as OOP expenditures to finance services. For instance, per capita total health expenditure in Zambia has averaged about US\$26, while per capita public



health care expenditure is about US\$12, and public spending on health care in Zambia accounts for only 33% of the total health sector resource envelope (MoH, 2005). Therefore, with such low levels of health spending in the face of rising national health needs, OOPs and external funding have largely remained an important source of funding, but achieving equity with regard to access to services still remains a challenge (Gottret and Schieber, 2006; Bennet and Gilson, 2001).

A key feature of Zambia's health financing policy has been to allocate a significant amount of health resources to lower levels or primary care programmes where health care services could be provided for in a more cost effective manner than at higher levels of care. In order to attain equity, efficiency, feasibility and financing of health care in a sustainable manner, the health financing policy has sought to ensure that revenues collected through general taxes constitute the main source of financing. Thus, the government has pledged to allocate a minimum of 15% of the national budget to the health sector as enshrined in the Abuja and Maputo Declarations (NHA, 2006). However, Zambia is still way behind in meeting the 15% budgetary allocation for health. Even the estimates by the WHO's Commission on Macroeconomics and Health (CMH) that low income countries should spend US\$ 34 per capita on health in order to meet a basic package of health services, Zambia is still way behind other low income countries.

Outside its own resources, cooperating partners have also remained important sources of health care financing through Sector Wide Approaches (SWAPs) and basket funding in which both cooperating partners and the government utilize joint funding and implementing mechanisms and monitoring and reporting systems in channeling their support so as to ensure effectiveness of resource allocation and use (NHA, 2006).

A major recent development regarding health care financing in Zambia has been the removal of user charges in public health institutions in rural areas. This is in line with the declaration of universal access to primary health care, with particular emphasis towards the vulnerable and disadvantaged sections of the population (NHA, 2006).

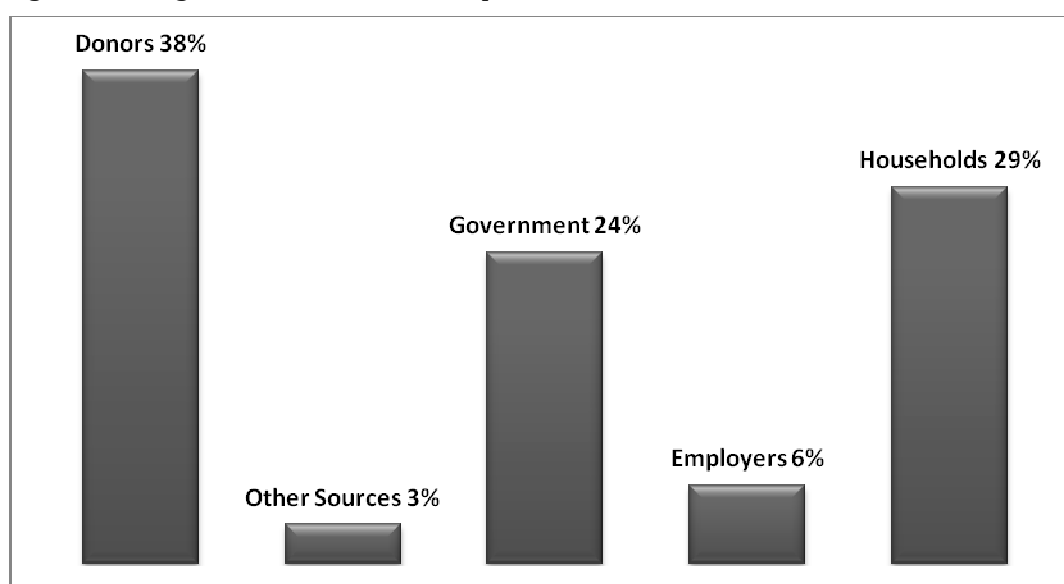
## Chapter V – Evaluation of Financing Mechanisms in Zambia

### 5.1. Introduction to Financing Mechanisms

The overall strategic planning and policy making for health care is the responsibility of national governments, yet financing of health care systems goes beyond government sources. While many low income countries largely depend on direct OOPs and external financing, there are other sources of funding health care, which comes through general tax payments and health insurance.

Opinion in the early 1980s and 1990s strongly favoured OOPs for low and middle income countries (Akin et al, 1987). Yet, the current consensus has now shifted to strongly favour health prepayment schemes due to the growing evidence of the impoverishing effects of OOPs combined with the widespread attention on poverty issues as witnessed by the Poverty Reduction Strategy Papers (PRSPs) in Highly indebted Poor Countries (HIPC) and the Millennium Development Goals (MDGs) (McIntyre, 2007). Also government taxation and external funding have become important sources of health care funding going by the amount of resources committed. However, what is important to understand is that no one country relies on a single health financing mechanism, but rather a combination of these mechanisms as an overall health financing package, and this mix largely depends on the country context. The various health financing mechanisms in Zambia are discussed below.

**Figure 2: Average Shares of Total Health Expenditures in Zambia, 2002-2004**



Source: NHA, 2006

### **5.1.1. Evaluation of Out-of-Pocket Payments (OOPs)**

A key development regarding health financing in Zambia has been the removal of user charges for primary health at all public health institutions. Since its introduction in 1980s, proponents of OOPs, including the World Bank, have enthusiastically argued in favour of the perceived benefits and made the following assumptions that if implemented; OOPs would improve efficiency, equity, feasibility and sustainable resource generation by:

1. Reducing frivolous demand – the assumption is that by raising the cost to the user above zero, OOPs would ensure that people did not use health care when they do not really need it, and therefore this would free up resources for those who are truly in need
2. Increasing revenue – the assumption is that sick people have a low ‘price elasticity of demand’ for healthcare (i.e. people will pay for healthcare if they need it, even if the cost goes up). Therefore, raising the price would generate the much needed revenue for the health sector in a sustainable way
3. Improving quality and coverage – the assumption is that financial resources mobilized would be invested in improving the quality of services, so as to increase utilization and not force people to go to other outlets such as in the private sector

However, from the time OOPs were introduced in Zambia, there has been strong debate as to the role they have played in promoting health goals. Studies available have reported a mix of results of OOPs.

Lagarde and Palmer (2008) argue that OOPs are a barrier to accessing health care among the poor and vulnerable groups. In a resource constrained health systems like Zambia’s, which relies heavily on OOPs to finance health services, it is difficult to strive for equity owing to the large majority of poor people who need health care the most and who cannot afford to pay for health services.

Accordingly, when OOP spending represents a large share of health spending like Zambia’s, pooling of private resources becomes limited. Consequently, households are expected to produce funds at the time of seeking health care, and this can be a hindrance

to accessing care and thus puts pressure on the financial status of poor households by pushing vulnerable families into the poverty trap (World Bank, 2009). Evidence from the Zambia Demographic and Health Survey (ZDHS, 2002) revealed that 22% of urban and 30% of rural patients were turned away from health facilities because they could not pay for the service upfront, as providers were reportedly reluctant to sacrifice revenue generation for exemption while at the same time indicators for access revealed that a large part proportion of the poor population could not seek for health care at public health facilities when they fall sick as they are unable to pay for health (Masiye et al, 2008). This means that the poor, who need health care the most, are being priced out of access to health care services.

On the other hand McIntyre et al (2005) observes that while the removal of charges ensures increased access to and utilization of health services especially by the poor, thereby improving equity of access to health, studies have shown a generally corresponding decline in staff morale due to increased workload and problems in the implementation process and drug shortages as utilization levels increased. However, when appropriate policy guidelines are taken in consideration, OOPs can help to improve the efficiency of the health care system by making referral system work better. Ideally, this works when revenue collected is (at least partially) retained at facility level to better the quality of service provided such as improving drug supplies (McIntyre et al, 2005).

Other studies have also reported that the revenue from OOP spending is relatively low and therefore contributes significantly little revenue to the operating costs of hospitals as they do for peripheral levels of care, because hospital charges make up a small part of the relatively expensive clinical services provided. As observed in Merson et al. (2006), the administrative efficiency of direct household expenditure is low, due to the labour intensive task of collecting fees from individuals. It is further argued that the stability of household spending on health varies according to household income, but it is likely to be fairly stable unless economic crisis causes widespread poverty. Moreover, patients who are usually referred to hospitals tend to suffer from very acute illnesses that require expensive treatment for which they are not able to pay (Uzochukwu & Onwujikwe, 2005). Other, studies have suggested that Zambia lacks the administrative and

managerial capacity to convert the retained revenue into perceptible improvements in quality. The DFID (2006) observes that the cost of collecting OOPs in Zambia has in most cases exceeded the actual revenues collected.

Even when analysed as a means of raising adequate revenue for health services, OOPs have failed to generate meaningful resources in a sustainable way. As observed in the NHA (2006), in a setting like Zambia where the majority of the population is poor and many households cannot afford even relatively small payments towards health care, combined with substantial differences in the distribution of income across households OOPs have failed to provide incentives to both consumers and service providers. Further studies (McPake, 1993; Gilson, 1997) on the experience of OOPs in Zambia have indicated that the predicated levels of resource generation have not been realized, and on the contrary revenue earned from implementing user charges fell well short of estimates, averaging about 7% of non-salary costs against the anticipated 15% by the World Bank. Consequently, this has curtailed the anticipated rise in utilization, through improvements in drug availability as well as resource reallocation through exemption schemes to protect the poor.

OOPs are a very regressive form of financing, as those with lower income levels tend to bear the greatest burden of ill-health and therefore bear the greatest financing burden as payment is directly linked to the use of health services (Van Doorslaer & Wagstaff, 1993). OOPs as a financing mechanism have not been well received by the majority poor Zambians due to its regressive nature that has the potential to reduce access to health services among the poor and tend to push many poor families into catastrophic health spending (Atim et al, 2008). This has raised serious concerns about the acceptability of OOPs as a financing mechanism. For this reason in 2006, the government decided to abolish the charging for health care at all publicly funded health facilities.

### **5.1.2. Evaluation of Government Taxation**

The availability of an adequate tax financing mechanism is critical if the problems of access according to need, quality of care, acceptability and sustainable resources generation in health care financing are to be addressed. Generally Zambia has a progressive tax system with personal income tax (tax rates of 10%, 20% and 30%

depending on an individual's income) constituting the main form of taxes (World Bank, 2009). If appropriately allocated, funding of health care from general tax revenue can benefit preferentially those with the greatest health needs thereby promoting equity of access to health care. However, studies (Castrol-Leal, 1996; Castrol et al, 1999 and Demery et al, 1995) have shown that the rich usually benefit from these services, as a large share of tax funding is allocated to large, expensive, urban- based health facilities than to primary care services and services in rural areas. As observed in (Merson et al, 2006) the ability of taxation to redistribute resources from the rich to the poor is hindered when the wealthy are able to evade the payment of taxes. This has raised questions of equity, among the poor and vulnerable in rural areas.

Government taxation, though not sufficient, offers sustainability in terms of mobilisation resources, as it ensures that the government will have the funds to address the health challenges the country is facing. Additionally, publicly funded health sector through financing services for the poor and providing financial protection, can only help to improve equity of access and provides incentives to both the consumers of health goods and service providers. However, given Zambia's limited infrastructure and small formal sector, government's ability to increase and adequately collect income taxes and indirect taxes has been restricted, and it is unjustifiable to raise personal income tax further. The government though has many other options for generating further tax revenue including property, business and import and export taxes (World Bank, 1997).

Worse still, government spending on health as a percentage of total government expenditure is lowest in Zambia when compared to other poor countries. As a signatory to the Abuja Declaration, Zambia is still way behind in meeting the 15 per cent budgetary allocation for health. Even the estimates by the WHO's Commission on Macroeconomics and Health (CMH) that low income countries should spend US\$ 34 per capita on health in order to meet a basic package of health services, Zambia is still way behind other low income countries. Public financing of the health sector can improve equity of access by subsidizing health services for the poor and providing financial protection. It has been observed that government spending on health is the most efficient way to finance health services that qualify as public goods such as infectious disease control, for which the majority are not willing to pay, as a large number of poor

households do not have adequate financial resources. However, in its capacity to finance health, the Zambian government is financially constrained as evidenced by low levels of public spending on health. The actual per capita spending on health has averaged between US\$ 10 -23 for the period 2004 -2007. This is below the standard of US\$ 34 recommendation by the WHO CMH, and therefore Zambia look certainly not to meet the CMH target by 2020 (Atim et al, 2008).

### 5.1.3. Evaluation of External Funding

**Table 6: Estimated External Aid Flow to Health Sector 2006-2010 (in US\$)**

	2006	2007	2008	2009	2010
United Nations Family including the World Bank	20,000,000	20,000,000	20,000,000	11,600,000	11,600,000
Japan (JICA)	3,205,785	3,205,785	3,205,785	3,205,785	3,205,785
USAID	149,000,000	149,000,000	149,000,000	74,000,000	74,000,000
Norway (NORAD)	2,850,000	2,850,000	2,850,000	2,850,000	2,850,000
Netherlands	1,210,090	1,210,090	1,210,090	1,210,090	1,210,090
Ireland (DCI)	3,751,279	3,751,279	3,751,279	3,751,279	3,751,279
Sweden (SIDA)	3,933,333	3,933,333	3,933,333	3,933,333	3,933,333
Global Fund	52,800,000	52,800,000	52,800,000	19,800,000	19,800,000
UK (DFID)	7,065,200	7,065,200	7,065,200	7,065,200	7,065,200
European Union	4,033,633	4,033,633	4,033,633	4,033,633	4,033,633
Private Charities & Foundations	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Zambian Government	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000
<b>TOTAL</b>	<b>272,849,320</b>	<b>272,849,320</b>	<b>272,849,320</b>	<b>156,449,320</b>	<b>156,449,320</b>

Source: WHO Country Cooperation Strategy for Zambia 2008-2013

It is a well known fact that many low income countries are largely dependent on external sources for funding health care. External funding provides both financial and technical assistance to help implement national health goals by supporting recipient government's strategy. In Zambia, resources for health from both domestic and international development partners have also remained an important component of the country's health care financing strategy. On the one hand, while recognizing the importance of external funding in bridging the financing gap in the health sector, government policy on the other hand has sought to encourage donors or development partners to continue utilizing joint funding and implementation mechanisms and monitoring systems in providing their support (NHA, 2006).

As mentioned earlier, external funding has been the biggest and key source of health expenditure accounting for 38% of the total health expenditure. Over the past decade, annual health expenditure in Zambia has increased steadily with significant contributions from external donors. For instance, annual health spending for the period 2004/05, increased from about US\$ 109 million to US\$ 234 million in 2007, mainly due to increased aid flows towards HIV programs and projects. During the period 2005 - 2008, annual external funding commitments to HIV alone increased from US\$ 22 million to about US\$ 180 million (WHO, 2009). This shows a significant increase in resource allocation from the previous years. On a per capita basis, the actual spending on health for the period 2004 – 2007 increased from about US\$ 10 to about US\$ 23 (WHO, 2009). However, this is still way below the standard of US\$ 34 recommended by the WHO CMH.

While external funding to poor countries has reached unprecedented levels (US\$ 3.7 billion in 2006); external aid can be volatile and largely tied to disease – specific priorities (USAID, 2008). Though volatile and unpredictable, these huge resources (external funding) have helped to reduce and fill up the financing gap that exist and have helped to bring health care to the majority poor who cannot afford the seemingly expensive health care. Volatility in aid for health as observed by Atim et al (2008) is a result of multiple causes, including the budget cycles and political processes of donor organizations and the absorptive capacity constraints of the recipient country.

The potential for improved health system efficiency through reduced duplication of services and harmonisation of administrative procedures have already been noted in Zambia in relation to external funding. However, donor funding is not sustainable and often tends to create dependency. Zambia is one of those low income countries that are highly dependent on external funding for the health sector. Zambia's high reliance on external funding has raised serious concerns. Firstly, aid flow can be volatile over time. This is a challenge for a poor country like Zambia, as it hinders the country's ability to plan for the long term. Secondly, a resource constrained country like Zambia runs into problems when investing in programs that generally generate recurrent costs such as training, hiring of staff and maintenance because external funding cannot be guaranteed to be available once the project comes to an end, thereby raising concerns over sustainability.



The political nature of external funding also limits the sustainability of this mechanism of financing. The relative political stability of a recipient country as well as the foreign policy considerations of external funders can all play an important role in which countries receive aid, the types of aid modalities used to deliver aid and the types of programs and interventions the aid can finance. Despite the unprecedented flows of external aid, there are concerns about donor's recent shift from pooled funding to general budget support. Concerns have been raised as whether the health sector will receive its "fair share" of donor funds under this arrangement and secondly, the new arrangement has the potential to undermine the role of the Ministry of Health in crucial areas of health policy particularly health care financing (NHA, 2006).

However, the context in which the various mechanisms for management of external funding have emerged in Zambia has been one of growing confidence and openness. Lake and Musumali (1999) argue that political support for the reforms at the highest level of the Zambian government has enabled the adoption of innovative and potentially risky strategies such as the devolution of government funding to districts and the increase in hospital autonomy has paid off through direct donor support under SWAp mechanisms. All these mechanisms are aimed at improving efficiency in the use of domestic funds and externally sourced development assistance by integrating these into a joint sectoral framework (Chansa et al, 2008). However, it is yet to be seen if that will be the case. The Medium-Term Expenditure Framework (MTEF) mechanism has formed the basis for current external funding to the health sector.

#### **5.1.4. Evaluation of Health Prepayment Scheme**

In recent years, there has been increasing emphasis among policy makers and international organizations on health insurance as a financing mechanism. In 2005, the World Health Assembly passed a resolution encouraging member countries to pursue social and other forms of health insurance (WHO, 2009). As observed by Atim et al, (2008) generating additional revenue for health and risk pooling through prepayment schemes, have the potential to improve equity and efficiency of spending, while at the same time addressing household vulnerability to burdensome OOP expenditures on health. Other than providing financial protection and potentially increasing equity and feasibility, health spending through prepayment schemes can:

- Improve the effectiveness of health spending by driving improvements in the quality of service provision and increasing the predictability of resource flows from users to providers;
- Reap economic efficiency gains, relative to individual out of pocket spending;
- Mobilize additional resources for health sector care and thereby freeing up limited public funds to be channeled towards poor people;
- Improve predictability of long term financing and coordination for greater impact on agreed priorities;
- The pooling of resources allows for cross-subsidies between those who are healthy and those who are sick, and between rich and poor
- Contributes to better quality health care by separating the purchasing and provision of services, especially if payment is performance based;

It is clear and widely accepted that pooling of resources and spreading the financial risk through prepayment schemes is another potential source of generating additional resources for health care services, but has remained largely untapped in Zambia. To date, there is little published data available on the extent of health prepayment schemes. Available data (NHA, 2006) suggest that there is limited capacity for health insurance to grow due to a limited formal labor market. For instance, at the time of preparing the NHA for 2002-2004, only two companies recorded to have undertaken private health insurance and provided data. The available statistics show that only 7% of the total formal workforce is covered by health insurance scheme through employer financed health care. Therefore, it has been concluded that the remaining 93%, of the workforce are either covered by membership schemes, “fee for service’ schemes, cost sharing, pre-purchase discount cards and capitation schemes, or as may be the case in most instances, they are not insured by any medical insurance scheme at all (NHA, 2006).

Employer financed health care has been described by many as being more likely to be more efficient than household’s OOPs, though less efficient than compulsory purchasers of care (such as social insurance schemes) due to their fragmentation. Merson et al (2006) maintains that the benefits of employer financing are generally restricted to the employees of the formal sector, therefore it is more likely to have little impact on the

redistribution of resources among people of different income groups, thereby raising questions of equity as it leaves out the majority poor.

Moreover, employer based financing tend to contribute to horizontal inequity in the health system as a whole as most employed workers are disproportionately young and healthy, leaving out the majority unhealthy who need healthcare the most (Merson et al, 2006). However, in the absence of economic crisis, employer financing is efficient and sustainable, but less feasible and equitable as employers are biased toward specific types of health services such as curative service. However, this may be a step towards a broader based health insurance, as the government has a policy of supporting existing private schemes as a means of developing a national social insurance scheme (NHA, 2006).

## **Chapter VI – Alternative Financing Mechanisms**

To date, many low income countries have recorded slow progress in improving health outcomes, and meeting health targets has raised concerns about Sub Saharan Countries' capacity to sustainably finance health care systems, given their limited capacity for growth and ability to mobilise domestic revenue (WHO, 2007). Studies have shown that even if low income countries like Zambia meet the Abuja Target of allocating 15 percent to health today, the government will still be spending less than US\$ 34 on health by 2020 due to the country's limited capacity for economic growth, and limited capacity for tax collection (Atim et al, 2008). Therefore these targets may require additional resources from donors, which can be channeled through a variety of mechanisms (WHO, 2007). However, as observed by the WHO (2007) there are challenges associated with external funding for health (such as volatility of commitments and disbursements tend to mismatch with country priorities), that inhibit the efficiency and effectiveness of aid.

In an effort to help reducing the gap in financing health systems in low income countries, development partners have considered to invest in newly emerging and innovative financing mechanisms for increased equity, efficiency and feasibility in service delivery, and in performance based financing as an alternative to the traditional input-based financing. These mechanisms will be discussed below.

### **6.1. Innovative Financing Mechanisms**

Financing of health care services in low income countries has become an increasingly critical and often urgent issue, especially in Sub-Saharan Africa. Over the last decade, there has been overwhelming global awareness of Africa's crisis in financing health care systems, and more generally, global health issues. This has led to the establishment of Global health Partnerships (GHPs) such Global Alliance for Vaccine and Immunization (GAVI) and Global Fund to fight AIDS, Tuberculosis and Malaria (GFATM), whose main focus is to better health aid in areas of perceived neglect and to simplify the aid architecture in these areas (WHO, 2007). GAVI and the Global Fund have long recognised weak health systems as a major barrier to achieving their corporate goals. Therefore, failure to address the crisis in health financing has also prompted the international community, charity organisations, donors and the private sector to display an unprecedented interest in innovative international health financing mechanisms to

complement existing efforts and to encourage more efficient solutions to the health problems confronting low income countries (Hecht et al, 2010). An innovative financing mechanism means different things to different people. As explained by the WHO (2007), innovative financing mechanisms are those mechanisms that attempt to address aid shortfalls and in particular, failures in the supply of global public goods for health, whose agenda is seen as an important component of a more robust and performance-driven approach to development assistance. Yet to others (NORAD, 2009; Ravishankar, 2009) , it is about raising new monies for global health work, while others (Glassman et al, 2007) consider the new mechanisms as tools to make existing aid spending more effective through various means including:

- Changing the timing of disbursements to accelerate health results (like the International Finance Facility for Immunization)
- Increasing certainty to bring down prices of commonly purchased medicines and goods (such as the Advance Market Commitment)
- Changing the incentives to recipients (through results based aid such as the Global fund and GAVI)

The renewed interest in global health financing has been mainly driven by the coming on stage of significantly new actors, especially the richly endowed private foundations such as the Bill and Melinda Gates Foundation<sup>6</sup>. The Gates Foundation has been funding some of the new global health initiatives such as GAVI and the Global Fund. Despite these unprecedented financial efforts, progress on the ground towards global health goals, including those embodied in the health related millennium development goals, has been slow and inadequate and, worse still, a huge financial gap remains. In an attempt to redress the situation, a number of nations from the Organisation for Economic Cooperation and Development (OECD) and their developing country partners have intensified efforts to identify and put in place funding mechanisms that along with increases in the traditional forms of development assistance (based on grants derived from general tax revenue), could help bridge the resources gap and thus finance essential health care for the poor.

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<sup>6</sup> The Bill and Melinda Gates Foundation is a private foundation founded by Bill and Melinda Gates, whose primary aim is to enhance healthcare and reduce extreme poverty globally

Financial resources from the US President's Emergency Plan for AIDS Relief (PEPFAR), GFATM and the GAVI have also constituted an important component of the aid flow to Zambia. However, GFATM and PEPFAR funds are channeled through the government and supporting NGO's, where as the GAVI funds are allocated only to the government (WHO, 2009). While each of these new mechanisms has limitations, taken together they could be an important part of the solution to the global funding gap (Hecht et al, 2010). Innovative mechanisms are discussed below.

### **6.1.1. International Health Funds**

Channeling of funds through global initiatives such as GAVI and the Global Fund have been instrumental in facilitating access to existing treatments by raising funds or pooling money for health programs, especially neglected diseases in low income countries (Tatum, 2009). Funding for GAVI and the Global Fund comes from donor governments, foundations such as the Gates Foundation, as well as private donations. It is widely recognised that the global health initiatives have mobilised important new resources for major health threats and brought the much needed political and technical focus to priority diseases and interventions (Caines et al, 2005). Others have also reported that these global health initiatives have injected new energy into aid business by linking inputs to performance and channeling of such resources directly to the private sector and community based organisations to make civil society and non-governmental organisations play a more prominent role in the provision of health care (Tatum, 2009).

On other hand, however, there are concerns that the rapid creation of new institutions in health has been difficult to manage for low income countries, and further complicates donor harmonisation efforts at the global level (Schieber et al, 2006). In particular, global health initiatives may intensify the vertical nature of health financing by focusing large amounts of new funding on specific, relatively narrow programmes and interventions, thereby creating separate financing and delivery systems leaving recipient countries with little flexibility to reallocate monies according to their priorities or to fund health systems costs such as salaries (WHO, 2007).

The PEPFAR, GAVI and Global Funds initiatives are known to have achieved remarkable impact. For instance, since 2001, the Global Fund has received in excess of US\$ 20 billion

in donor commitments, while the GAVI has also received nearly US\$ 4 billion since 2001. These monies have been disbursed to low income countries to fight AIDS, Tuberculosis and Malaria. At the same time, GAVI and the Global Fund are working closely to combine funding streams to strengthen health systems in low income countries (Tatum, 2009).

By devoting huge resources for specific disease interventions, the global health initiatives have eased the burden of out of pocket spending on health among the poor, and this has helped to promote equity of access. Moreover, by engaging the private sector and NGOs, (and in most cases organisations for people living with diseases) to deliver health care, it has been reported that this approach has potentially improved efficiency and effectiveness of delivery as private organisations are known for their efficiency and transparency in delivery (USAID, 2008).

However, with billions of dollars pledged and devoted to poor countries with high disease prevalence and generalised epidemics, these financial resources have in most cases exceeded the recipient country's total annual budget for health (Levine and Ooman, 2009). For instance, Zambia has received grants in excess of US\$ 700 million. Given Zambia's health financing challenges, limited capacity to mobilise domestic resources and the magnitude of its disease burden, the funds from GAVI and the Global Funds are welcome and much needed, but critical questions have remained as to how Zambia's health system can absorb and utilize effectively and efficiently such huge financial resources (USAID, 2008). Moreover, these global initiatives have been criticised for not providing budget support for recurrent costs, including for additional human resources for health (Hanefeld, 2009).

However, in order to ensure equity, efficiency and broad consensus, GAVI and the Global Fund have a strategy that require every recipient country's application for the fund be done through a partnership that includes representatives from governments, civil society and the people affected by the diseases. However, it is yet to be seen how this strategy is working.

### **6.1.2. International Finance Facility**

This is another innovative global initiative that generates revenue for immunization programs and improved health systems in resource constrained countries by issuing long term government backed bonds in international capital markets to fund GAVI sponsored programs (Tatum, 2009). It is also known as the International Finance Facility for Immunization (IFFIm) that enables potential donors who are fiscally constrained in the short run to provide immediate development funds through pledges and help guarantee future aid flows (IFFIm). By borrowing on capital markets and disbursing funds to GAVI, the IFFIm generates immediate revenue to accelerate access to vaccinations in low income countries, and donors make payments over long period of time (IFFIm, 2009). The IFFIM has enabled GAVI to attract new funding for immunization which has led to innovative and targeted immunization and corresponding results, which would not have been achieved without this kind of funding. As reported by the World Bank (2009), GAVI has disbursed more than US\$ 630 million of IFFIm funds to combat Measles, Yellow Fever, Tetanus and Polio; improve health systems and immunization services and support new and under used vaccines.

The following are the benefits of IFFIm to low income countries as observed by the World Bank and GAVI:

- Improved planning and budgeting in implementing countries – predictability enables governments in low income countries to make long term budget and planning decisions. Presently, IFFIm generates funds disbursed through GAVI but the mechanism could be applied to budget support or SWAp approaches that pool donor funds in a given sector such as health
- Enables long term commitments – IFFIM funds are based on long term. This provides the certainty of aid flows comparable to commitments made by donor countries to the International Development Association or World Bank

However, there are questions that surround the long term sustainability of the IFFIm, just like any other form of aid flow. As observed by Tatum (2009), the IFFIm has high administrative costs compared to multilateral banks that borrow on a large scale, and it has had difficulty securing legally binding commitments from donors, in part due to concerns about creating debt for future generations.



### **6.1.3. Advance Market Commitments (AMCs)**

This is another mechanism where donors commit to paying for a vaccine at a fixed price for a given period to defray development costs and to subsidise procurement by low income countries. This mechanism as observed by Tatum (2009) can create a viable future market and provide incentives to the private sector to invest in developing new vaccines for neglected diseases. This mechanism also enables donors to pay only when a product is brought successfully to the market. To date, AMCs has secured almost US\$ 1.5 billion in donor commitments and is expected to save 5.8 million lives by the year 2030, mostly in low income countries (World Bank, 2009).

### **6.1.4. UNITAID**

UNITAID is a new public health financing mechanism and a form of South-North collaboration whose mission is to contribute to the scaling up access to treatment for HIV/AIDS, Malaria and Tuberculosis, primarily for people in low income countries by. It was established in 2006 as an international drug purchase facility that uses price negotiations and pooled procurement to increase access to treatment and support existing efforts to achieve the health related MDGs in developing countries (GAVI, 2009).

It has been reported that more than 70 percent of UNITAID's funding comes from a levy on airline tickets imposed by seven of its 35 member countries, with the remainder coming through direct donor funds. Hecht et al (2010), maintains that UNITAID has the potential to raise significant revenue, having generated US\$ 389 million in 2008. However, future revenues may be affected by the current economic turmoil. Moreover, by imposing a mandatory levy can be time consuming and politically difficult. This is seen in part by the limited number of members that have joined this effort to date. At the moment only 93 countries are members of UNITAID. As member of UNITAID, Zambia has received support from the organization. However, it is not yet known how much has been received and the exact impact on Zambia' health care system.

### **6.2. Performance Based Financing (PBF)**

Performance Based Financing (PBF) or 'Paying for Performance' is a strategy for improving how money is spent on health. It refers to a variety of mechanisms whereby

funds for health care can be tied to concrete and measurable results, by linking funding to actual results rather than linking funding to inputs, which is the traditional way health care has been financed (Soeters et al, 2006). Yet others argue that by linking allocation of financial resources to achievement of pre-defined performance targets, PBF is seen as a strategy to align the incentives of providers and purchasers of health care services, thereby increasing service coverage and accountability (World Development Report, 2004; Save the Children, 2008).

The thinking behind PBF is that in order to achieve health goals, households, health workers, health care facilities and the system that tie these partners together need to take effective action. PBF as reported in Canavan et al (2008) is predicated on the assumption that linking incentives to performance will contribute to improvement in access, quality and equity of service outputs. Therefore, by providing financial incentives to achieve results, performance based financing seeks to change behaviours of health system actors and reward actions that lead to results (Eichler & Levine, 2008). In other words, performance based financing focuses primarily on health outcomes, responsiveness, social and financial risk protection and improved efficiency (WHO, 2008). As observed in Toonen et al (2009), PBF is intended to contribute to improvement of health provider performance and ultimately to improved quality of health service delivery at the operational level. At the same time, it means a fundamental change in the way the health sector is financed with a shift from input to output funding.

Eichler and Levine, (2008) further argue that by tying funds for health care to concrete and measurable results, PBF schemes can potentially increase utilisation of services, enhanced equity, improved quality and increased efficiency. It is argued that PBF can address household behaviours or the 'demand side', by stimulating households to take health related actions such as immunizing children and giving birth with the assistance of a skilled attendant. On the 'supply side', PBF can also provider behaviours by linking part of the payment to health workers and facilities to attainment of pre-determined health targets.

As observed in Eichler (2006), PBF can be useful in linking funds transferred from national to local levels of government and has been used to link fund transfer from an external donor to government. For instance, PBF allows NGOs to act as fund holders,

who in turn can establish performance based contracts with authorities or local organisations at district levels. This has generally increased the acceptability of PBF. For instance NGOs implementing PBF in Rwanda have accepted it and view it as a promising and innovative strategy to tackle issues related to equity, efficiency, access, utilisation and provider performance (Loevinsohn, 2006). In Zambia for example, the fund holder is the government entity that channel NGO money, while Rwanda has a government fund holder (Canavan et al, 2008). However, in all cases, the contracts employ a business plan whereby health worker incentives are tied to performance, based on an agreed set of indicators.

In the past decade, performance based financing has been gaining increasing attention due to its focus on improving approaches to health service delivery that is in line with management reform and accountability to the consumer. Under PBF, attention has now shifted from determining the relative returns on investment from inputs to the health system, with more attention to output and outcome performance. Traditionally, health services are delivered through input financing which is now recognised to be centralised as the input approach produced variable results contingent on willingness, capacity and motivation of the recipients and providers of the services (Loevinsohn, 2006).

Faced with the dissatisfaction in gap between investment and outputs, many low income countries have looked to introduce PBF as an alternative funding mechanism that has the potential to elicit more autonomy and independent management for health providers and ultimately improved services for users (Canavan et al, 2008). Up until recently, there has been no evidence documented on the long term effects of PBF. A few studies (Loevinsohn, 2005; Soeters & Griffiths, 2003) have shown that PBF has better outcomes for improving health services than the traditional 'input' approaches which are characterized by centralised planning and the distribution of inputs such as salaries, essential drugs and medical equipments.

However, as reported in Toonen et al (2009), for PBF to improve utilisation and quality of care, the services need to be responsive to community needs. PBF is about the client-provider relationship, about the autonomy at the operational level, about seeking results in terms of increased utilisation (verification takes place at the household level), and there is a place for community involvement in the institutional designing of contracting

(Toonen et al, 2009). Moreover, the WHO (2007) observes that improving efficiency of resource use requires focusing on the appropriate mix of activities and interventions to fund, and inputs to purchase. It also requires aligning provider payment methods with organisational arrangements for service providers and other incentives for service provision and use.

However, while exhaustive examples of PBF contracts are rare in Sub-Saharan Africa, Rwanda began several promising initiatives of PBF in 2001. Experiences from Rwanda have suggested that performance bonuses to providers, based on the volume and quality of services provided has had significant impact on the range of services such as increasing number of deliveries in health facilities, the quality of prenatal care and even more so on preventive care for children (Loevinsohn, 2006). It has been further reported that PBF has a potential impact on health status in terms of reduced child morbidity as well as child growth rates.

As observed in Canavan et al (2008), the Rwandan experience has shown that these schemes can work in resource constrained health system, but where minimal conditions are in place, (such as functioning drug supply system, well maintained facilities, minimum staffing levels), with performance payments significantly boosting the supply service as compared to input based financing. Therefore there is need for further research to explore the issues of health equity and access to health care services by the most vulnerable groups in the population. The study (Canavan et al, 2008) to explore the impact of PBF in Rwanda, argue that overall consumers were paying less out of pocket payments (in the HealthNet TPO supported project in Butare and in Cordaid's project in Cyangugu)<sup>7</sup>, compared to the non- contracting provinces due to incentives to, over fees to attract more patients. Therefore, it has been concluded that generally, PBF can be instrumental in achieving better results in the health sector when compared to the traditional input financing approach. More specifically, PBF has been noted to increase health workers' productivity. In Rwanda, for instance, remarkable results have been observed in utilisation trends for institutional deliveries, family planning and coverage for antenatal services.

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<sup>7</sup> Cyangugu and Butare Provinces were the pilot provinces for PBF in Rwanda (supported by HealthNet TPO and Cordaid and later scaled up to the national level in 2002 as adopted by the MoH)

Rwanda has demonstrated clear commitment to the national scale up of PBF, and in 2006 PBF was integrated within the national policy following an NGO run pilot projects. In other countries like Burundi and the DRC, the effects of PBF have also been felt on the health system at the local level. For instance, in the Democratic Republic of Congo, it has been reported that the burden on households has significantly reduced through lowering of user fees costs. It is worth noting that the average consultation fee reduced from US\$ 4 to US\$ 2 in the target areas over the first two years (World Bank, 2007). However, in Tanzania, it has been reported that there is no direct effect of PBF on health systems reported due to the parallel approach<sup>8</sup> used and the fact that contracting was not directly with the providers responsible for results (Toonen et al, (2009).

However, by moving from input to output financing in national systems, PBF requires the reorganisation of resource mobilisation and allocation for institutional reform and for management of change. The Rwandan experience has shown that scaling up to the national level is possible, but requires new institutional arrangements at both national and local levels. This has implications for harmonisation with existing structures and for the transaction costs, of which resources may not be readily available. It is evident that many low income countries are reliant on external aid to support building operational structures. This has raised serious concerns over sustainability of PBF. As noted in Toonen et al (2009), sustainability in the context of PBF would include national ownership from the beginning, which is essential to achieving institutional sustainability of a program.

The Rwandan case demonstrates that strong leadership (both government and non-government) is critical to success of the approach. However, a donor driven approach to PBF can dilute the potential for local ownership and alienate health providers who are not invited to negotiate on the contract and related performance targets. For the above reasons, countries like Zambia may need a more systematic approach of PBF than a parallel approach.

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<sup>8</sup> In a parallel system, the role of the local funder is assumed by an existing organization which act as an intermediary fund holder

## **Chapter VII – Discussion, Conclusions and Recommendations**

### **7.1 Discussion**

Throughout decades of ineffective government spending and underfunding of Zambia's health care system, the reality for the large portion of the population is that health care services have remained unaffordable and unavailable, and in most instances skewed towards the needs of the rich. Up until 2006, when charging for health care was abolished, Zambia relied on OOPs to finance health care services. This is highly challenging as far as equity and efficiency is concerned, owing to the majority of the poor who cannot afford to pay for health.

When OOPs represent a large share of health spending like Zambia's, pooling of resources becomes difficult. Therefore, households are expected to produce funds at the time of seeking health services, and this has hindered the poor from accessing health care and threatens their financial status by pushing them into catastrophic spending. Generally OOPs are the most regressive form of financing health care, as those in low income brackets bear the greatest burden of ill health and consequently the majority poor are priced out of access to health.

From the perspective of health care benefits in Zambia, OOPs are seen to be inimical to equity and efficiency as benefits are distributed solely on the basis of ability to pay rather than on the basis of need for health care and thus, cannot offer the necessary financial protection in the event of ill health. Moreover, OOPs are horizontally inequitable, and vary according to factors such as distance lived from the health facilities and individual preferences. In a system like Zambia's, where majority of the people are poor, government spending is the most equitable and efficient way to finance health care services. However, in its capacity to finance health, the Zambian government is financially constrained as evidenced by the low levels of public health spending. Today, Zambia faces a huge challenge of achieving most of its health goals. Specifically, attaining the much acclaimed health-related MDGs by the year 2015 will prove to be a major challenge. Meeting these goals will be highly unachievable if health expenditures do not grow in a way that is consistent with attainment of MDGs. Currently the actual per capita spending on health has averaged between US\$ 10 – 23, which is way below the recommended standard of US\$ 34 by the WHO-CMH. Consequently, Zambia is one of

those low income countries that look unlikely to meet the CMH target by the years 2020. Moreover, even when compared to other low income countries in Sub-Saharan Africa, government spending on health as a percentage of total government expenditure in Zambia is among the lowest amongst low income countries. Given Zambia's high population growth rates and disease burden, government's spending on health is supposed to increase at a corresponding rate to meet the demand, so as to maintain efficiency in the provision of health care.

It is widely agreed that government spending through taxes offers sustainability in terms of resource generation, and ensures that the government will have the funds required to address the health challenges the country is facing. Moreover, government funding of health care services for the poor can help to promote equity of access, efficiency and feasibility by subsidizing health services for the poor and providing financial protection as way of providing incentives to both consumers of health services and service providers. However, given Zambia's limited infrastructure and institutional capacity, and a small formal sector, this has restricted the government's ability to generate adequate domestic resources. Increasing government spending is a commitment the government made in the attainment of the HIPC completion point, but this has not been the case. Instead, the government has failed to expand the tax net to include the potentially large informal sector, and not relying on the limited and small formal labour market for revenue.

However, in attempting to bridge the financing gap, Zambia has sought financial assistance from cooperating partners. Zambia is now one of those low income countries that are highly dependent on external sources for health. External resources have provided both the financial and technical assistance that have helped to implement national health goals. External funding is the biggest and key source of health expenditure in Zambia accounting for 38% of the total health expenditure. To date, Zambia has received in excess of US\$ 700 million in aid for health. Most of this aid has been channeled through basket funding coordinated through SWAps, budget support and other innovative financing mechanisms. This has eased the burden of inequity and inefficiency by channeling resources directly to the private sector and community based organizations to make civil society and non-governmental organizations play more

prominent roles in the provision of health care. This has also improved access among the poor and vulnerable by directing resources towards interventions that have the greatest impact on health outcomes, and is therefore seen as critical in promoting ownership by recipient governments.

However, despite the unprecedented aid flows, concerns have been raised over the volatility and sustainability of external funding to Zambia. Aid volatility has been an obstacle to Zambia's health system, as it inhibits the country's ability to plan for the long term. Moreover, much of this aid is channeled towards disease specific interventions. This can be problematic. For example, when investing in programs that generate recurrent costs such as training and hiring of staff and maintenance, external donors cannot guarantee funds to be available once the project comes to an end. This has often raised concerns of sustainability. Further concerns have also been raised as to whether health systems like Zambia's can absorb and utilize effectively and efficiently such huge financial aid. Zambia lacks the institutional capacity and infrastructure to absorb the huge resources that comes from donors.

Despite huge aid flows and government's attempts to increase funding of health services, health care has remained largely unaffordable and unavailable to the majority Zambians. Zambia has looked to the introduction of health insurance as a means to generate additional revenue for health. Risk pooling through health prepayment schemes has the potential to improve equity and efficiency, while at the same time addressing vulnerability to burdensome out of pocket spending on health. While it has been widely acknowledged that pooling of resources and spreading the financial risk is a potential source of generating additional resources, this form of financing health care has remained largely untapped in Zambia. Zambia has limited capacity for health insurance to grow due to a limited formal labour market. The statistics available suggest that only 7% of the total labour force is covered by health insurance through employer based financing. Given Zambia's poverty inequality and the rich-poor divide, setting up a national health insurance scheme could not work as the majority poor cannot afford to make contributions.



## **7.2 Conclusion and Policy Implication**

The main aim of any health financing mechanism is to sustainably generate adequate resources for the health system, while at the same time setting the financial incentives for health care providers as well as ensuring that all individuals have access to health care in a more equitable, efficient and effective way. Most importantly, the way in which any health system is financed has profound effects on its stewardship, service provision, resource mobilization and attainment of national health goals, as well as fair financial contributions so that individuals are not exposed to financial risk of impoverishment. In other words, countries should design and implement health financing mechanisms that are able to collect revenues, pool financial risks and allocate resources through purchasing of services. And if Zambia is to attain the health related MDGs and improve the health status of the majority poor, there's need to increase health spending that is consistent with the health needs of the poor, and in line with national health goals. For this to be achieved there is need for strong commitments from both the government and external donors (both multilateral and bilateral cooperating partners). This is especially true from the government's side. Zambia has enjoyed good support from external donors, and over the years, the country has received substantial assistance for health. However, this donor support is yet to be equally matched by government commitment to financing health care.

Given the huge challenges Zambia's health system is facing, perhaps sustainability should imply an increased funding and commitment from the government to match the donor community, at least until a certain threshold is attained where the government is able to adequately meet the health challenges from its available resources. Increased government spending on health can result in reduced household expenditure on health. At the moment, the share of household expenditure on health has remained uncharacteristically high averaging 29% of total health expenditure. This has exposed many households to catastrophic health spending. As a signatory to the Universal Declaration of Human Rights, Zambia has made a commitment to aspire for equity and efficiency in health financing and provision of health care services, considering that 70% of the population is poor. Every human being is entitled to good health, thus health should be seen as a measure of social justice and equity. Therefore, government has the responsibility of ensuring that the poor and vulnerable groups receive quality health

care through a well functioning health care system. However, even with substantial resources and the coming of innovative financing mechanisms, Zambia's health care system remains weak. Thus Zambia, should strive to have a mix of financing mechanisms by establishing risk pooling mechanisms that will be able to generate new resources for health and at the same time provide financial protection and incentives to both the poor and service providers. It is well known that pooling of expenditure risks, of the well to do urban households and donor resources, can spread the financial risks, and could ensure the transfer of funds from high income urban groups to low income rural groups and from low risk to high risk individuals.

### **7.3 Recommendations**

- Government should aim for a mix of health financing mechanisms that should be:
  - Reliable and sustainable, and compliment other financing mechanisms
  - Provides incentives to customers and service providers
  - Provide effectiveness, technical, allocative and administrative efficiency
  - Provide social justice (equity) in the distribution of costs and benefits
  - Have greater impact on health status (health related quality and quantity of life
  - Acceptable by consumers, service providers (including private providers), politicians, medical and nursing associations, trade unions and external donors
- Government should also look to other promising innovative approaches that have proved to improve efficiency of public and private health spending such a performance based financing. Rwanda and a few Latin American countries have shown the potential of PBF in increasing the technical efficiency of service provision as well as improving the quality of care delivered, and stimulating demand for priority services.
- The government should consider setting up a national social health insurance scheme which could offer universal coverage with adequate financial protection for all against health care costs. The scheme should be extended to cover the self employed and non-formal sector by means of community based health insurance scheme which should be line with the broader national health goals.

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