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Health care financing in Africa: what does NHA estimates do reveal about the distribution of financial burden?

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Abstract

This paper, utilized National Health Accounts framework to profile the health financing situation in Sub-Saharan Africa countries. While Africa accounted for less than 0.9 percent of global health spending, the region carried over 43% of global burden of communicable diseases. Thus financing of healthcare remained a core issue to most African countries. The highest burden of healthcare financing is shouldered by households, which accounted for between 72% and 99% of private sources. The public and external sources accounted for around 33% and 30% of total health expenditure, respectively. With high poverty incidence in the continent, households are easily exposed to catastrophic spending risk. Health financing reforms that emphasis pooling mechanism, especially social health insurance is therefore required. Deviance to the Alma Alta Declaration, which laid precedence on preventive healthcare, curative healthcare generally, dominated the allocation of healthcare resources. This has implication on the efficiency and effectiveness of healthcare delivery in African countries. Public facilities played a dominant role in the provision of healthcare, which is arguably supported by the need to achieve greater equity in healthcare delivery. However, with the growing wave of public-private-partnership initiatives, it may be intuitively wise and efficient to increase private participation in healthcare provision.

Keywords: National Health Accounts, Healthcare financing, Total Health Expenditure, Sub-Saharan Africa, out-of-pocket, households, financing sources, financing agents, health insurance.

INTRODUCTION

Financing of health care remain a core issue in most African countries. The countries of the World Health Organisation (WHO) African Region face critical constraints in financing their health systems to provide a basic package of cost-effective health care interventions deemed necessary to achieve the health-related Millennium Development Goals (MDGs) (McIntyre, 2007). Ensuring affordable access to health services on a continent where one-third of the population lives on less than \$1 per day is a daunting challenge (Cooke, 2009). However, it has been rightly observed that, "in this region, increasing the level of health expenditures and improving their efficiency is literally a life and death situation" (Atim, 2009). While Africa accounts for less than 0.9 percent of global health spending, the region carries over 43 percent of global burden of communicable diseases (Medical Credit Fund, 2011), and 24 percent of global burden of

diseases. Also with only 2.8 percent and 3.4 percent of the global health workforce and global health service providers, respectively contained in Africa (WHO, 2006), the region accounts for about 15 percent (<http://en.wikipedia.org/wiki/Africa>) of the world population in 2009. The region is characterized by non-equitable distribution of the health care with public sector health care services benefitting the rich more than the poor, as the highest income quintile consumes 33 percent, compared to 10 percent accessed by the lowest income quintile (see, Medical Credit Fund, 2011).

To improve the equity, efficiency and sustainability of their health financing mechanisms, many of these countries have undertaken health financing reforms as part of the broader health sector reform agenda (Sekwat, 2007). The health financing reform basically involves alternative arrangements for paying for, allocating, organ-

Table 1. Some Socio-demographic and Economic indicators for Selected Countries, 2011.

Countries	GDP per capita (cur. US\$)	GDP per capita growth (Ann. Av. 2000 - 2011) (%)	IMR(per 1,000 live births)	U5MR(per 1,000 live births)	MMR (per 100,000 live births) 2008	Health Index	LE @ Birth (years)	Poverty Headcount (% of Pop.)	HDI 2011
Burkina Faso	600.38	2.44	81.60	146.40	560	0.559	55.4	46.7(2009)	0.331
Cote d'Ivoire	1,194.60	-1.57	81.20	114.90	470	0.558	55.4	42.7(2008)	0.400
Congo, Dem. Rep.	230.86	1.25	110.60	167.70	670	0.448	48.4	71.3(2006)	0.286
Ethiopia	374.22	5.67	51.50	77.00	470	0.619	59.2	38.9(2005)	0.400
Gambia, The	624.57	1.69	57.60	100.60	400	0.607	58.5	48.4(2010)	0.420
Ghana	1,570.13	3.86	51.80	77.60	350	0.698	64.2	28.5(2006)	0.541
Kenya	808.00	1.20	48.30	72.80	530	0.586	57.1	45.9(2005)	0.509
Liberia	281.21	6.05	58.20	78.30	990	0.580	56.7	63.8 (2007)	0.329
Malawi	370.61	1.54	52.90	82.60	510	0.540	54.1	52.4(2004)	0.400
Namibia	5,292.89	2.56	29.60	41.50	180	0.670	62.3	38(2004)	0.625
Niger	374.45	0.25	66.40	124.50	820	0.547	54.7	59.5(2007)	0.295
Nigeria	1,452.09	3.78	78.00	124.10	840	0.503	51.9	54.7(2004)	0.459
Rwanda	582.79	4.45	38.10	54.10	540	0.559	55.4	44.9(2011)	0.429
Senegal	1,119.36	1.14	46.70	64.80	410	0.620	59.3	50.8(2005)	0.459
Seychelles	11,711.47	2.09	11.90	13.80		0.845	NA	NA	0.773
Sierra Leone	373.98	5.32	119.20	185.30	970	0.438	47.8	66.4(2003)	0.336
Tanzania	528.55	3.85	45.40	67.60	790	0.603	58.2	33.4 (2007)	0.466
Uganda	487.11	3.66	57.90	89.90	430	0.538	54.1	24.5 (2009)	0.446
Zambia	1425.31	2.83	52.70	82.90	470	0.458	49.0	59.3 (2006)	0.430
Average	729.31*	2.74	59.98	92.97	578	0.578	55.6	48.3	0.439

Source: WDI 2012; * Average of GDP per capita for the rest of the countries, excluding Namibia and Seychelles

izing, and managing health resources. While the initial focus of the reform was the introduction of user charges in health facilities with implication on out-of-pocket payment, attention is recently and gradually shifting to increase adoption of social health insurance plan. A number of countries, including Ghana and Tanzania, for example, have made important progress in expanding national health insurance systems that ensure protection for those most in need (Cooke, 2009).

From the perspective of health as a fundamental human right, WHO in 2001 recommending minimum per capita health spending of US\$34 for countries (WHO, 2001), while the African Heads of States and Governments in cognizance of the high disease burden and the significance of investing in health, in the same year in Abuja were busy subscribing to "Abuja Declaration" to allocate at least 15% of their countries' annual government budgets to the health sector. Around this period Atim (2009) in an analysis of WHO data between 1998-2002 discovered that only 19 of the 52 countries covered were spending at least \$34 per capita, on health. Six years later, in 2007, almost all the countries, with the exemption of Liberia, Rwanda and Tanzania, are yet to abide by the Abuja Declaration

(Sambo et al., 2011), while more countries, 30 out of 53 countries were allocating at least US\$34 per person per year to health (WHO, 2010b). Thus for a sample of African countries that already have NHA estimates released into the public domain, this paper examines the distribution of the financial burden in the health sectors of the continent.

MATERIALS AND METHODS

Brief Profile of Selected Countries

Majority of the countries included in this study are low-income countries. Excluding Seychelles and Namibia (The per capita GDP of the two countries are outliers for the sample being US\$11,711.50 and US\$5,292.9, respectively), the average GDP per capita for the countries in 2011 is about US\$730, with more than half (eleven) of the countries being below this amount, and only seven exceeding US\$1,000. For countries like Congo DR, Ethiopia, Liberia, Malawi, Niger, and Sierra Leone, the per capita GDP is barely enough to cover one dollar per day for the population (see Table 1). The

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growth of the countries' economies has been generally positive and moderate in the last one decade. With the exception of Cote d'Ivoire, all the countries experienced positive per capita GDP growth on the average, ranging from 0.25 percent to 6.05 percent, translating to an average of 2.7 percent for the group of countries. Ironically, the last decade of moderate growth experience of these countries has not translated into general improvement in the standard of living of the people of the continent. Though the poverty rate was as high as around 53% around the turn of the century, it remains above 48% on the average in 2011. This level of incidence of poverty is considered too high when is considered within the context of the set target for poverty and hunger reduction in the MDGs. In a number of countries like Congo DR, Liberia, Malawi, Niger, Nigeria, Senegal, Sierra Leone, and Zambia, substantially more than half of the population lives below the poverty threshold. Many studies on poverty in African countries affirm that the incidence of poverty is higher in rural areas compared to urban.

Most of the countries classified with the group of low human development countries, are in sub-Saharan Africa. This is confirmed among this group of countries,

with an average of human development index (HDI) of 0.439 in 2011, and majority of countries, The four exception countries are Ghana (0.541), Kenya (0.509) Namibia (0.625), and Seychelles (0.773) having HDI less than 0.500. The rank countries' HDI rank in 2011 is clustered between 150 and 187 out of 187 countries. However, trends in HDI indicate that, there was a gradual and steady increase in the average HDI value from 0.314 in 1980 to 0.439 in 2011 (Table 1).

Replica of countries in sub-Saharan Africa, this group of countries faces a growing burden of diseases and critical shortage of health system resources. The epidemiological profile revealed the general high incidence of communicable diseases including malaria, tuberculosis and HIV/AIDS; high prevalence of maternal and child health problems. Of the total of 10.951 million deaths in Africa in 2008, 65% were from communicable diseases, maternal and perinatal conditions, and nutritional deficiencies; 28% were from non-communicable conditions; and 8% were from injuries (WHO, 2010a). Although Africa had only 13% of the world's population in 2008, she accounted for 24% of global burden of disease (Cooker, 2009). Africa bore about 52% of the world's burden of maternal and child

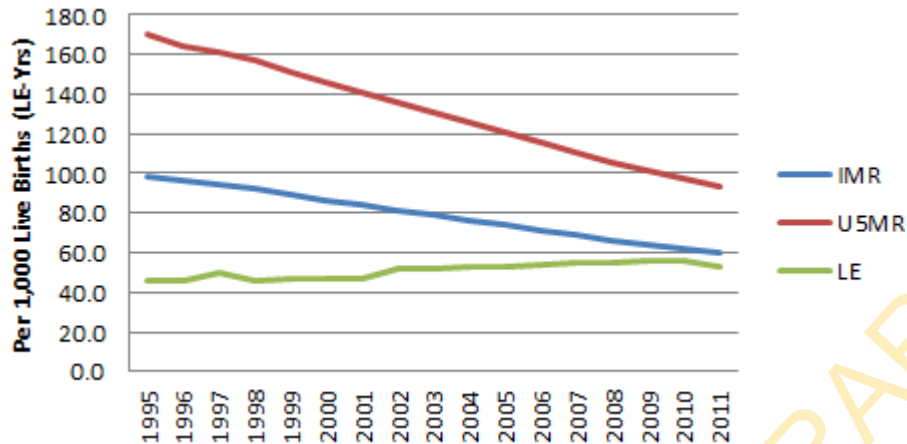


Figure 1. Trends in some health indicators: 1995-2011(Countries Average).

deaths, 89% of malaria deaths, 76% of HIV/AIDS deaths, 46% of deaths from childhood diseases, and 34% of perinatal deaths associated with prematurity and low birth weight, birth asphyxia, birth trauma and neonatal infections, and other conditions (WHO, 2010a).

This has been accompanied by upward trend in the burden of non-communicable diseases, as well as resurgence of the neglected tropical diseases while access to health services is still very limited. Though there has been on the average a significant decline in infant, under five, and maternal mortality, as well as improvement in life expectancy, the rates are still high with a substantial distance gap away from the MDGs set targets. Wide variations do however exist in terms of the health indicators with respect to each of the countries. For instance the infant mortality and under five mortality ranged between 30-119, and 41-185 per 1000 life birth, respectively. The neonatal maternal mortality also varied between 9 and 49 per 1000 life birth, while the life expectancy ranged between 47.8 and 64.2 years. These health indicators trends are depicted in Figure 1.

Definition of NHA Terms

Following the NHA Producers' Guide by WHO (2003), definitions of the most commonly used terms in NHA are presented.

Financing sources (FS) are institutions or entities that provide the funds used by the financing agents. They are the originators of the funds (e.g. Ministry of Finance, households, donors, firms, etc.).

Financing agents (HF) are institutions or entities that channel funds provided from the financing sources and use those funds to pay for or purchase the activities within the health accounts boundary. They are the purchasers of health care services (e.g. Ministry of Health, other Ministries, Department and Agencies (MDAs), insurance organizations: private and social,

households' out-of-pocket payment, non-governmental organizations (NGOs), etc.).

Providers (HP) are entities that receive money in exchange for or in anticipation of producing and providing health care services within the health accounts boundary. They include hospitals, health clinics and centers, pharmacies, etc.

Health care functions (HC) are the types of goods and services provided and activities performed within the health accounts boundary (e.g. curative care, services of rehabilitative care, prevention and public health services, health administration and health insurance, and health-related functions, such as capital formation for health care provider institutions, education and Training of Health Personnel, research and development in health.

Out-of-pocket payments are the direct outlays of households' payments in cash and kind, made to health practitioners and suppliers of pharmaceuticals, therapeutic appliances and other goods and services whose primary intent is to restore, improve, and maintain the health status of individuals or population groups.

Overview of the NHA Methodology Framework

National health expenditure encompasses all expenditures for activities whose primary purpose is to restore, improve and maintain health for the nation and for individuals over a specific period of time (WHO, 2003). National health accounts (NHA) are a tool for systematic, comprehensive, and consistent monitoring of resource flows in a country's health system. Specifically, the NHA tracks the flow of health system resources from financing sources (i.e. entities that provide the funds), through financing agents (entities that receive and use funds to pay for health activities), providers (entities that receive money to produce health activities), functions (types of goods and services provided) and health system inputs to beneficiaries (WHO, 2003).

NHA framework has been increasingly used in countries of the region to generate information and evidence on the state of health financing including its efficiency, equity and sustainability Maier (2003). WHO (2003) describes NHA as a framework for tracking and measuring total health expenditure (THE) and tries to address the following questions: (i) how are resources mobilized and managed for the health system? (ii) Who pays and how much is paid for health care? (iii) Who provides goods and services, and what resources do they use? (iv) How are health care funds distributed across the different services, interventions and activities that the health system produces? And (v) who benefits from health care expenditure? To date, many countries in the WHO African Region have conducted NHA at least once and utilized the findings to inform various policies and plans related to the sub-functions of health system financing that include the generation of resources; pooling and risk sharing; and resource allocation decisions (WHO, 2000). National Health Accounts is an internationally accepted tool that provides a comprehensive estimate of national health expenditures. It captures and examines a nation's use of public, private (including households), and donor funds. NHA organizes and tracks the flow of funds from one health care dimension to another starting from the source to the end user.

The total health expenditures consist of public funds, private funds and rest of the world funds. Public funds consist of mainly funds from central government revenue, regional and municipal government revenue and return on assets held by a public entity. Private funds are composed of essentially employer funds, household funds and funds from non-profit institutions serving individuals. The rest of the world funds include bilateral grants, multilateral international grants and funds from funds contributed by institutions (including foundations) and individuals outside the country. For instance, it can demonstrate the allocation of funds from the Ministry of Health (MoH) to a government health provider and present the type of services the provider offers. The purpose of NHA is to influence policy through its use by policymakers who can make evidence-based decisions. NHA can also be used as a monitoring and evaluation tool to track changes in policy and allocation of resources.

The commonly used national health accounts indicators include: total expenditure on health as a percentage of gross domestic product (GDP); total per capita expenditure on health; levels of government per capita health expenditure and; general government expenditure on health as a percentage of total expenditure on health; government expenditure on health as a percentage of total government expenditure; private expenditure on health as a percentage of total expenditure on health; external expenditure as a percentage of total expenditure on health; out-of-pocket

expenditure as a percentage of private expenditure on health; and private prepaid plans as a percentage of private expenditure on health. Under the NHA methodology, health expenditure data are presented in a series of standard tables that can be easily understood, not only by policymakers, but also by donors and other stakeholders.

Data Sources

This paper relied on NHA estimates from 20 Sub-Saharan African countries with NHA estimate reports posted on the WHO website. Many African countries have undertaken at least one or more NHA estimates exercise for different fiscal years. Given the increasing adoption of NHA in African countries, different countries are at different stages of institutionalizing the regularization of the exercise. WHO, being the spearheading institution for NHA estimates around the globe, especially in developing countries, NHA estimates reports for countries are posted on the WHO website for public access. Different countries have different number of NHA reports covering varying number of fiscal years posted on the website. The data for this study is limited to a single fiscal year NHA estimates for each country. Only the lasted fiscal year NHA estimates available for each country is utilized. The fiscal years NHA estimates covered for the countries ranges from 2000/01 for Uganda to 2009/10 for Kenya. Generally, the countries' NHA estimates reports are characterized by varying depth of details, covering health expenditure by financing sources, financing agents, health care providers, and health care functions. However, the NHA estimates reported are of limited use for some countries with respect to health expenditure by health care providers and functions.

RESULTS

THE estimates for the 20 selected countries ranged from least value of US\$26.14million in Seychelles for 2009 to highest value of US\$7.44billion in Nigeria for 2005. However, THE per capita turned out to be highest in Seychelles. Bearing in mind that the countries are of different sizes, varying population, the per capita figure was adopted for the analysis in this paper. Though for varying fiscal years, the average per capita THE for the sample of the SSA countries stood at US\$57.89. With the exception of Seychelles and Namibia with US\$297 (2009), and US\$268 (2008/09), respectively, most of the countries barely exceed US\$40. As much as six of the countries committed less than US\$20 per capita, with Niger spending less than US\$6.00 per capita on health in 2003.

The proportion of THE to GDP is generally at one digit

Table 2. Income and Health Expenditure Characteristics of Sub-Saharan Countries.

Country	Fiscal Year	Per capita GDP (US\$)	THE (US\$'M)	Per capita THE (US\$)	THE/GDP (%)	GHE/GTE (%)	Population
Burkina Faso	2009	538.22	78.83	38.54	6.89	8.08	15.98
Cote d'Ivoire	2008	1155.00	1368.70	65.78	5.70	4.50	20.81
DRC	2009	156.80	875.54	13.00	8.29	NA	67.35
Ethiopia	2007/08	335.35	1189.22	16.10	4.50	5.00	73.86
Gambia	2004	396.31	56.02	40.06	14.90	10.86	1.40
Ghana	2002	287.00	278.42	13.60	4.78	6.00	18.41
Kenya	2009/10	776.45	1620.33	42.20	5.40	4.60	38.61
Liberia	2007/08	232.53	100.52	29.00	15.00	NA	3.49
Madagascar	2003	339.00	196.00	11.90	3.50	NA	16.44
Malawi	2005/06	236.22	308.28	25.00	9.80	6.30	12.34
Namibia	2008/09	1011.39	550.69	268.00	6.80	14.30	2.05
Niger	2003	298.08	66.27	5.95	2.00	2.00	11.13
Nigeria	2005	802.79	7440.30	54.61	8.56	NA	136.08
Rwanda	2006	317.00	307.34	33.93	11.00	6.50	9.06
Senegal	2005	801.53	455.55	40.00	4.99	NA	11.39
Seychelles	2009	9034.00	26.14	297.00	3.30	8.60	0.09
Sierra Leone	2006	266.93	324.93	62.29	23.33	NA	5.33
Tanzania	2005/6	369.69	918.77	24.50	6.20	NA	39.92
Uganda	2000/01	222.00	423.00	18.31	8.10	7.40	23.10
Zambia	2006	910.82	681.48	58.00	6.34	NA	11.80
Average		924.35	863.32	57.89	7.97	7.01	25.93

Sources: Extracted from World Health Organization National Health Account database: Countries NHA Reports (www.who.int/nha/en)

in percentage terms. On the average, THE constitutes around 8 percent of the GDP, while majority (12) of the countries are below this average. For countries for which information was available, none allocated up to 15% of the national budget to health, despite the Abuja Declaration of 2000. With the exception of Namibia and Gambia, the rest of the countries' governments commit less than 10 percent of total budget (see Table 2).

Sources of Finance

The contributions of the three main sources of financing health expenditure: public, private, and donors differ across the sample of the SSA countries. The main financing sources of health expenditure in most of the 20 selected SSA countries are the private sources contributing between 33% and 70.5% in 14 countries. The share of government contribution to financing THE is quite low in most of the countries. The public contributed less than one-third in 15 countries, implying that the government commitment to financing health expenditure in these countries was playing just a second fiddle to private sources. In some countries like Cote d'Ivoire, Democratic Republic of Congo (DRC), Liberia, Sierra Leone, and Uganda, the public accounts for less than

20% of THE. Dependence on external sources for financing health expenditure in SSA countries is significantly high, contributing on the average 30.3% of THE in the selected SSA countries. The donor sources dominate as the main source of finance in some countries like DRC, Ethiopia, Gambia, Liberia, Madagascar, Malawi, Rwanda, Tanzania, and Zambia, mostly contributing more than 40% of THE (Table 3).

Government Expenditure on Health

Government expenditure on health was generally less than 9% of the total government expenditure. The average from countries for which data was available revealed that 7 percent of government budget is allocated to health, which is far below the Abuja Declaration target of allocating at least 15% of national budget to health. With the exception of Seychelles and Namibia, per capita government expenditure on health was less than US\$15.00. In majority (11) of the countries, less than US\$10.00 is contributed by government per capita. The situation is even worse in quite a number of countries like DRC, Ethiopia, Liberia, Madagascar, Niger, and Uganda, where per capita government expenditure on health is less than US\$5.00.

Table 3. Distribution of per capita THE by Sources for Sub-Saharan African Countries (US\$).

Country	Fiscal Year	Public	Households	Firms & Others	Private	Donors	THE per capita
Burkina Faso	2009	12.38(32.1)	14.23(36.9)	11.93(31.0)	26.16(67.9)	0.01(0.02)	38.54
Cote d'Ivoire	2008	10.92(16.6)			46.37(70.5)	8.49(12.9)	65.78
DRC	2009	1.90(14.6)	4.06(31.2)	1.58(12.1)	5.63(43.3)	5.47(42.1)	13.00
Ethiopia	2007/08	3.58(22.3)	5.97(37.1)	0.23(1.40)	6.20(38.5)	6.32(39.2)	16.10
Gambia	2004	9.81(24.5)	3.65(9.1)	0.28(0.7)	3.93(9.8)	26.32(65.7)	40.06
Ghana	2002	5.44(40.0)	4.31(31.7)	0.99(7.3)	5.30(39.0)	2.86(21.0)	13.60
Kenya	2009/10	12.15(28.8)			15.49(36.7)	14.56(34.5)	42.20
Liberia	2007/08	4.35(15.0)	10.15(35.0)	0.87(3.0)	11.02(38.0)	13.63(47.0)	29.00
Madagascar	2003	3.81(32.0)	2.35(19.7)	1.34(11.3)	3.69(31.0)	4.40(37.0)	11.90
Malawi	2005/06	7.75(31.0)	2.25(9.0)	2.25(9.0)	4.50(18.0)	12.75(51.0)	25.00
Namibia	2008/09	144.18(53.8)	32.96(12.3)	32.70(12.2)	65.66(24.5)	58.16(21.7)	268.00
Niger	2003	2.33(39.2)	1.93(32.3)	0.16(2.7)	2.09(35.0)	1.54(25.8)	5.95
Nigeria	2005	14.21(26.0)	36.71(67.2)	1.66(3.0)	38.37(70.3)	2.03(3.7)	54.61
Rwanda	2006	6.37(18.8)			9.46(27.9)	18.10(53.40)	33.93
Senegal	2005	14.36(35.9)			17.22(43.1)	8.41(21.0)	40.00
Seychelles	2009	258.39(87.0)			20.79(7.0)	17.82(6.0)	297.00
Sierra Leone	2006	12.06(19.4)	43.14(69.3)	0.26(0.4)	43.40(69.7)	6.83(11.0)	62.29
Tanzania	2005/6	6.88(28.1)			6.81(27.8)	10.80(44.1)	24.50
Uganda	2000/01	3.33(18.2)	7.42(40.5)	2.55(13.9)	9.96(54.4)	5.02(27.40)	18.31
Zambia	2006	14.16(24.4)	15.81(27.3)	3.97(6.9)	19.78(34.1)	24.06(41.5)	58.00

Sources: Computed from World Health Organization National Health Account database: Countries NHA Reports (www.who.int/nha/en)

Household Expenditure on Health

The level of household contribution to health expenditure is currently high in SSA countries. The household represents a significant proportion of private sources of THE. For countries with breakdown of private sources of financing health expenditures available, the households account for between 72% and 99% in most (11 out of 14) of the countries. It is observed from Table 3 that the share of private sources dominates the other sources in 8 of the countries Burkina Faso, Cote d'Ivoire, Democratic Republic of Congo, Kenya, Nigeria, Senegal, Sierra Leone, and Uganda, which implies greater responsibility on the households. In nine of these 14 countries, the household accounts for more than 30% of THE, which according to WHO (2005), is double the threshold point for the incidence of catastrophic expenditure set at 15%. Catastrophic expenditure is said to occur when households spend more than 40% of their disposable income after deducting subsistence allowances.

Health Expenditure by Financing Agents

Presented in Table 4 is the distribution of per capita health expenditure by financing agents for all the 20 sampled SSA countries. The funds from the financing

sources are received and managed by the financing agents, who are responsible for the purchase of health care services. The main stakeholders here are the public, private, and Non-Governmental Organizations (NGOs). The funds from the donor sources are usually channeled through either public institutions or NGOs. Public financing agents in the countries receive and manage between 25% and 92% of THE. The private financing agents also play a significant role in the purchase of health care, accounting for varying proportions ranging from between 7% and 74.4% of THE. For countries with breakdown of components of private financing agents in their NHA reports, the household OOP accounts for between 5% in Seychelles and 69.3% in Sierra Leone.

The least contributing financing agent is the NGOs. In quite a number of countries (7), the NGOs manage more than one-quarter of funds in the health sector. The adoption of pool financing mechanism through health insurance arrangement is still generally alien in SSA. From the available data, though not for the total sample of countries, the role of health insurance organizations (either private or social) is still generally at its infancy stage. Health insurance, social and private combined, generally accounts for less than 3 percent of THE, with the exception of countries like Namibia, Niger, and Malawi, where it accounts for 15.9%, 5.7%, and 4.5%, respectively.

Table 4. Distribution of per capita THE by Financing Agents for Sub-Saharan African Countries (US\$).

Country	Fiscal Year	Public	Health Insurance	Households OOP	Others	Private	NGOs
Cote d'Ivoire	2008	13.09(19.9)				45.78(69.6)	6.91(10.5)
DRC	2009	4.93(37.9)	0.01(0.1)	3.64(28.0)	1.55(11.9)	5.21(40.1)	2.86(22.0)
Ethiopia	2007/08	6.76(42.0)	0.28(1.8)	5.88(36.5)	0.92(5.7)	7.08(44.0)	2.25(14.0)
Gambia	2004	32.45(81.0)	0.24(0.00)	3.67(9.2)	0.36(0.9)	4.27(10.7)	3.34(8.3)
Ghana	2002	5.17(38.0)	0.27(2.0)	4.35(32.0)	0.95(7.0)	5.58(41.0)	2.86(21.0)
Kenya	2009/10	15.45(36.6)				14.31(33.9)	12.45(29.5)
Liberia	2007/08	9.77(33.7)	0.75(2.6)	10.15(35.0)		10.90(37.6)	8.32(28.7)
Madagascar	2003	6.55(55.0)				4.76(40.0)	0.60(5.0)
Malawi	2005/06	12.25(49.0)	1.13(4.5)	2.25(9.0)	1.25(5.0)	4.63(18.5)	8.13(32.5)
Namibia	2008/09	182.51(68.1)	42.65(15.9)	17.11(6.4)	0.80(0.3)	60.57(22.6)	24.92(9.3)
Niger	2003	3.87(65.0)	0.34(5.7)	1.66(28.0)		2.00(33.7)	0.08(1.4)
Nigeria	2005	16.08(29.4)	1.19(2.2)	36.91(67.6)	0.38(0.7)	38.48(70.5)	0.05(0.1)
Rwanda	2006	16.63(49.0)				7.80(23.0)	9.50(28.0)
Senegal	2005	21.13(52.8)				17.31(43.3)	1.55(3.9)
Seychelles	2009	272.99(91.9)	4.92(1.7)	14.50(4.9)	1.00(0.3)	20.42(6.9)	3.58(1.2)
Sierra Leone	2006	15.57(25.0)	0.30(0.5)	43.13(69.3)	2.94(4.7)	46.37(74.4)	0.35(0.6)
Tanzania	2005/6	14.95(61.0)				2.70(11.0)	6.86(28.0)
Uganda	2000/01	5.00(27.3)	0.04(0.2)	7.01(38.3)	0.59(3.2)	7.63(41.7)	5.68(31.0)
Zambia	2006	21.38(36.9)	0.54(0.9)	15.75(27.2)	3.15(5.4)	19.44(33.5)	17.18(29.6)
Average		35.61(47.3)	4.05(2.0)	12.02(21.6)	0.73(2.4)	17.12(36.6)	6.18(16.0)

Sources: Computed from World Health Organization National Health Account database: Countries NHA Reports (www.who.int/nha/en)

Table 5. Distribution of per capita THE by Health care Providers for SSA Countries (US\$).

Country	Fiscal Year	Public	Private	Missionary	Traditional	Others	Per capita THE
Ethiopia	2007/08	11.75(73.0)	2.85(17.7)	0.23(1.4)	0.08(0.5)	1.20(7.5)	16.10
Ghana	2002	9.78(71.9)	3.78(27.8)	NA	0.03(0.2)	0.01(0.1)	13.60
Kenya	2009/10	29.03(68.8)	12.83(30.4)	NA	NA	0.34(0.8)	42.20
Liberia	2007/08	18.47(63.7)	10.50(36.2)	NA	NA	0.03(0.1)	29.00
Madagascar	2003	7.97(67.0)	3.33(28.0)	NA	NA	0.60(5.0)	11.90
Namibia	2008/09	166.43(62.1)	85.22(31.8)	NA	NA	16.35(6.1)	268.00
Nigeria	2005	27.85(51.0)	18.02(33.0)	0.55(1.0)	2.18(4.0)	6.01(11.0)	54.61
Rwanda	2006	19.00(56.0)	12.55(37.0)	NA	0.00	2.38(7.0)	33.93
Seychelles	2009	272.97(91.9)	23.85(8.0)	NA	0.18(0.01)	NA	297.00
Uganda	2000/01	5.00(27.30)	13.31(72.7)	NA	NA	NA	18.31
Zambia	2006	35.14(60.6)	15.46(26.7)	2.24(3.9)	NA	NA	58.00
Average		54.86(63.0)	18.34(31.7)	0.27(0.6)	0.23(0.5)	2.99(4.2)	76.60

Sources: Computed from World Health Organization National Health Account database: Countries NHA Reports (www.who.int/nha/en)

Health Expenditure by Health Providers

The distribution of per capita health expenditure by health care providers is presented in Table 5. The question of "who provides health care services?" or "where are services provided?" is addressed by the health

expenditure breakdown by providers. They constitute the entities that provide or deliver health care and health-related goods and services. The main providers' distinction is between public and private facilities. Missionary and traditional facilities' providers are also often identified in the categorization of health care

Table 6. Distribution of per capita THE by Health care Functions for Sub-Saharan African Countries (US\$).

Country	Preventive	Outpatient	Inpatient	Curative	Lab and Pharm	Retail Med	Gen. Hlth. Adm. and Insurance	Others	Per Capita THE
Burkina Faso	17.02(44.2)			11.36(29.5)	9.19(23.9)		0.97(2.5)		38.54
Ethiopia	4.19(26.0)	5.73(35.6)	1.07(6.6)	6.80(42.2)	0.44(2.7)		2.57(16.0)	2.11(13.1)	16.10
Gambia	11.62(29.0)			10.01(25.0)			13.22(33.0)	5.21(13.0)	40.06
Ghana	1.15(8.4)	6.32(46.5)	2.70(19.9)	9.02(66.4)	0.91(6.7)		2.52(18.5)		13.60
Kenya	9.62(22.8)	16.50(39.1)	9.24(21.9)	25.74(61.0)	1.18(2.8)		3.80(9.0)	1.86(4.4)	42.20
Liberia	2.90(10.0)			15.75(54.3)	6.29(21.7)		4.06(14.0)		29.00
Madagascar	3.33(28.0)	3.33(28.0)	0.83(7.0)	4.17(35.0)	2.38(20.0)		1.19(10.0)	0.83(7.0)	11.90
Malawi	5.65(22.6)	8.22(32.9)	3.86(15.4)	12.08(48.3)	0.40(1.6)	0.50(2.0)	5.37(21.5)	1.00(4.0)	25.00
Namibia	37.79(14.1)	100.23(37.4)	41.54(15.5)	141.7(75.9)	28.68(26.7)		29.21(10.9)	30.55(11.4)	268.00
Nigeria	7.57(13.9)			40.38(73.9)			0.27(0.5)	6.38(11.7)	54.61
Senegal	8.92(22.3)			13.88(34.7)	8.64(21.6)	0.24(0.6)	3.92(9.8)	4.40(11.0)	40.00
Seychelles	8.91(3.0)	74.25(25.0)	139.59(47.0)	213.8(72.0)	8.91(3.0)		41.58(14.0)	23.76(8.0)	297.00
Zambia	8.91(15.4)	14.96(25.8)	19.38(33.4)	34.34(59.2)	0.51(0.9)	4.81(8.3)	9.42(16.2)		58.00
Average	9.81(20.0)	17.66(20.8)	16.79(12.8)	41.47(50.3)	5.19(8.9)	0.43(0.8)	9.09(13.5)	5.85(6.4)	

Sources: Computed from World Health Organization National Health Account database: Countries NHA Reports (www.who.int/nha/en)

providers. Some of the countries however lumped up the missionary and traditional facilities with others. However, only eleven countries out of the sample for this paper presented their NHA reports in a format that could be easily categorized into public and private, at minimum. With the exception of Uganda, the public facilities dominate in the provision of health care services in these countries. Between 51% in Nigeria and 92% in Seychelles of health care services are provided in public facilities, while private facilities generally cater for about one-third of health care services provision (Table 5). From countries for which data is available, the missionary and traditional providers cater for very minimal proportion of health care services.

Health Expenditure by Health Care Functions

The distribution of health expenditure by health

care function is presented in Table 6 below. The table contains data from only 13 countries for which information along this dimension is available. Despite the Alma Alta Declaration that reaffirms emphasis on preventive health care based on primary health care, the distribution by health care function shows a general dominance of curative services, consuming more than 50% of THE. For example it is observed that more than 60% of THE was allocated to services of curative care in Ghana, Kenya, Namibia, Nigeria, and Seychelles in 2002, 2009/20, 2008/09, 2005, and 2009, respectively. A breakdown of curative services into outpatients and inpatients cares for countries for which data is available reveals that higher proportion is expended on outpatient care. Preventive health care still generally lag behind in most SSA countries. Contrary to expectation that prominence to preventive function of health care is being globally promoted for developing

countries in the light of the predominance of communicable diseases, generally less than 25% of THE is committed to delivering preventive health care services.

Aside curative and preventive care, allocation to general health administration and health insurance assumes the next significant share of THE, accounting for over 14% in seven Ethiopia, Gambia, Ghana, Liberia, Malawi, Seychelles, and Zambia countries (14%-33%). Laboratory and pharmaceutical services also attract appreciable proportion of close to 9% on the average.

DISCUSSION

This paper attempts to provide a profile of the health financing situation and distribution of burden among health financing stakeholders in Sub-Saharan Africa countries. On the average,

THE per capita appears to show that the SSA countries spends barely the amount of US\$30-40 per capita that is required to deliver basic package of health services as recommended by the WHO (WHO, 2001). This further confirms the conclusion of Sambo et al (2011) that for a sizeable number of African countries, the total health spending is less than the bare minimum of US\$34 per person per year recommended by the WHO Commission for Macroeconomics and Health. However, up to nine of the countries in the sample of 20 countries spend below US\$30 per capita on health, while the average per capita health expenditure without Seychelles and Namibia. is less than US\$32. The enormity of health problems confronting African countries suggest that higher proportion of national budget not below 15% should be allocated to health, which formed the bases of the Abuja Declaration of 2001. Given the centrality of human capital to general economic development, the continent stands to reap enormously from increasing financial commitment to health care, to better confront the various health problems bedeviling the continent.

Basically, the households in most of the countries and on the average bear the highest burden of health financing, accounting for between 72% and 99% of private sources. In the light of the underdeveloped health insurance sector in most SSA countries, the high household OOP payments are responsible for the high contributions from the private sources. Coupled with the significant income inequality and poverty incidence that characterizes SSA countries, the household are prone to the risk of catastrophic spending, which has adverse implications on the general welfare of the household. There is therefore the need to shift this burden off the household. One possible option could be through increased government allocation of funds. However, this is subject to the buoyancy of government purse, which may not guarantee sustainability. In this light, health financing reforms that emphasizes pooling mechanism, especially social health insurance should be accorded priority. With the preponderance of employment in the informal sector, varieties of social health insurance plans that targets the community level should be encouraged. A moderately small share of private sources will contribute to reducing financial catastrophe and risk of impoverishment (Xu et al., 2007).

While reliance on external sources of financing health expenditure in SSA countries may be taken advantage of in the meantime, arrangement should be geared towards reforming the funding mechanism in the health sector to allow for ascendancy of more sustainable and less risky pooling option. It is noteworthy to mention that there has been an increasing adoption and application of social health insurance across the African countries. Efforts should therefore be made to scale-up the coverage of the scheme, as only a small proportion of the population is currently covered.

Given the "public good" nature of health care, the

Relatively lower share of government in THE is unacceptable. Relative to the private sector, the share of government in health financing could be considered to be low. This calls to question the stewardship role of government in the funding of public goods like health care. There is need for countries to strive to increase governments' contribution to THE to at least the levels of the Abuja Declaration of 15% of the national budget.

Given the significant share of external sources, there is no doubt that continued reliance on external sources does not guarantee future sustainability, more so, that the flow of such financial assistance hinges on some inherent conditionality, and subject to economic buoyancy of the donating countries. Continuous flow of resources from external source may not be guaranteed, or sustainable both in the medium and long run. It must be borne in mind that the assurance of external support from developed world is subject to the tempo of the relationship that exists between individual countries and the external sources(s).

Bearing in mind that most of donor supports for health is unpredictable, tied, and not aligned and harmonized with the health priorities and systems of the African countries (Sambo et al., 2011), reliance on external funding of health may not deliver the required improvement in the health condition of Africans. Conflict of interest in other areas cannot be ruled out, and once bilateral relationship breaks down, health sector may be one of the significant victims.

Recent global dictates have shown that reliance on external source of financing health care has devastating effect on health care activities of countries with dominant external funding. It is noteworthy that the external assistance to fund MDGs, of which health care component is substantial, has remained short of the required amount. For instance, in 2008, out of the required total 0.54% of GNI of member countries of Development Assistance Committee (DAC) needed by developing countries to achieve their MDGs, a total 0.31% was allocated to Official Development Assistance (ODA) (United Nations, 2010). In fact only 5 of the 24 members of the DAC allocated at least 0.7% of their gross national income to ODA (OECD, 2010). If the national health systems of African countries are to be strengthened to achieve the MDGs, there is no doubt that the countries require increased and better allocated domestic and external funding. It has been projected that investing an additional average of US\$21 to US\$36 per capita per year over the next five years (2011–2015) would save 3.1 million lives in Africa (of which 90% would be among mothers and children), prevent between 3.8 million and 5.1 million children from stunting, build an additional 58,268 to 77,100 health facilities, and produce an additional 2 million to 2.8 million health workers in Africa (HHA, 2010). In order not to jeopardize the sustainability of the health system and reverse the gains achieved in some of the MDGs, it will be crucial in the

interim to develop a strategic relationship with partners for a sufficiently longer period and for predictability of funds.

Despite most African countries being signatories to the Alma Alta Declaration, which placed precedence on preventive health care through PHC strategy, curative health care services generally dominate in the allocation of financial resources. This has implication on the efficiency and effectiveness of health care delivery in African countries. Not only has preventive care been identified as most effective and efficient in addressing the communicable diseases which dominate the health problem landscape of developing countries; private entities are generally considered to be more efficient in the provision of goods and services, of which health sector may not be an exception. This may negatively affect the prevention and control of priority health problems where health promotion and other preventive interventions play a vital role (Zere et al., 2010).

While health facilities of curative attribute are concentrated in the urban areas, the PHC facilities which have wider spread are poorly facilitated in terms of funding, material, and human resources inputs. Thus, accessibility of substantial proportion of the population to health care is hampered, necessitating poor health care coverage. To ensure that more resources are invested in strengthening PHC, there is need to revisit resource allocation across various levels of the health systems to boost preventive health care.

The presented results revealed that greater proportion of health care provision is carried out in public facilities. This dominant role of public is arguably supported by the need to get health care services to those areas and groups of people that may not be economically attractive to private providers, who are driven by profitability. However, with the growing wave of public-private-partnership initiatives, it may be intuitively wise and efficient to increase private participation in the provision of health care to a stage where public provision will be relegated to the backseat. Examples can be drawn from most European countries, where government dominates in the funding of health care, but are seldom involved in its provision.

CONCLUSION

The current financing structure among stakeholders in SSA revealed the resting of the main burden on the households, with minimal contribution by government. Attempts should be geared towards the following within the health sector financing of SSA. First, in addition to SSA government increasing allocation to health care delivery, health financing reforms that emphasizes pooling mechanism, especially social health insurance should be accorded priority to lighten the health financing burden on the household. Second, the demand for

financial sustainability calls for less reliance on external financing of health in SSA by scaling-up the coverage of the various health insurance schemes. Third, the dominance of communicable diseases in SSA implies according greater financial priority to preventive health care, which has been identified as the most effective and efficient for solving health care problem of the continent. Lastly, given the relative better efficiency of the private sector, they should be allowed to play increasing role in the provision of health care, through greater reliance on public-private-partnership initiatives, as is the case in most European countries, where government dominates in the funding of health care, but are seldom involved in its provision.

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