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HEALTH FINANCING AND EXPENDITURE IN NIGERIA

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ABSTRACT

Health care financing policy has a significant impact on the structure and organization of health care delivery. The choice of a particular health care financing approach has implications for economic incentives to patients and the providers, variations in the extent of access to health care for particular population groups, and the organization of health care delivery. This paper addresses the concept and various methods of health financing, as well as the criteria for the choice of different health financing policies. It also analyzes Nigeria's health expenditure based on two rounds of estimates from the National Health Accounts of Nigeria (NHA), 1995 to 2002 and 2003 to 2005.

While each of the major financing methods: government revenue, social and private insurance, user fees, and community financing has its own strengths and weaknesses, the choice a nation is largely dependent on its history, culture, and current institutions, and on whatever trade-offs regarding objectives that nation is willing to make.

The paper analysis health expenditure patterns in Nigeria, using the National Health Accounts, based on estimates from Soyibo (2005) and Soyibo et al. (2009). Total health expenditure, as a percentage of GDP over period 1998 to 2003 ranged between less than 5 per cent and 7.5 per cent, while the households account for the bulk (average of 66%) of financing health care in Nigeria, which is not sustainable. Government, who relies on tax revenue contribute less than 23 per cent of the country's total health expenditure, while industrial private sector and the donor agencies play a minimal role. To ensure sustainability of the funding of health expenditure in the country, there is a need for a gradual and progressive shift to risk pooling mechanism, which not only

appears more viable and sustainable, but also tend to lighten the burden on the households. Government in addition should wake up to her stewardship role in funding health care to improve the general welfare of Nigerians.

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1. Introduction

HEALTH financing involves the mobilization, accumulation and allocation of monetary resources to address the health needs of people, individually and collectively, within a particular health system. The choice of a particular health care financing approach has implications for economic incentives to patients and the providers, variations in the extent of access to health care for particular population groups, and the organization of health care delivery. The chosen financing approach, combined with the organization of health care delivery and the chosen incentive structure, determines who has access to health care, the cost of health care, productive efficiency, and quality of services. Financial capability does not produce health care; the financial resources have to be converted into services through delivery organizations.

Health care financing policy has a significant impact on the structure and organization of health care delivery. Health care financing information and indicators of costs and effectiveness are meant to be used to achieve better health gains from a given set of resources. Indeed, the financing method chosen has critical consequences for the amount raised, equity among income and intergenerational groups, and losses in production resulting from the economic distortions created by the financing approach (George Schieber and Akiko Maeda, 1997). Consequently, careful analysis is required because any financing policy choice would have both positive and negative consequences. This paper addresses the concept and various methods of health financing, as well as the criteria for the choice of different health financing policies. It also analyzes Nigeria's health expenditure based on two rounds of estimates from the National Health Accounts of Nigeria (NHA), 1995 to 2002 and 2003 to 2005.

2. Methods of Health Care Financing[1]

A survey of funding in the health care reveals there are a number of financing methods that characterizes the health care system in different countries around the globe. The financing methods include: public revenue, health insurance (private and social), user fees, and community financing. Given that each financing methods has its own strengths and weaknesses, no single method dominates in any country, rather a combination of financing techniques are usually adopted. The choice of techniques is rather influences by some peculiarities of the country, such as the healthcare system objectives, history, cultural and institutional inclination, as well as the adopted health care delivery organizational system. While under some financing methods, the provision and financing of health care services are separated, in others, they are integrated.

2.1 Public Revenue

The financing of health care services through public revenue can be take three different form, which are based on general taxes, inflation (printing of money: syeignourage), and earmarked taxes. The trio of general tax, inflation, and earmarked tax are typically used as the main forms of government health financing.

2.1.1 *General Taxes*

Usually the most important source of financing of health care services by government is general taxes. Government all over the world raises revenue to finance its activities, including health care through imposition of tax on the citizens. The budget allocation to the health sector and other sectors of the economy by government are derived from general tax revenues. According to Sorkin (1986), general tax revenues have long been used in every country of the world to finance certain components of health care. Considering the possibly low political priority often given to health care in national budget decisions; coupled with the unstable economies of developing countries, general tax revenues may not be a stable source of finance for health care. In developing countries, the urban population often benefits more from tax-financed health services to the detriment

[1] This section draws significantly from Hsiao (2000).

of the rural populace. This is because priority is often given to tertiary hospitals, which serve the economic and political elite. The decision on how to use tax funds and who should benefit can usually be influenced by five major targeting practices:

Vertical Programmes: This health services delivery implies a selective targeting of specific interventions not fully integrated in health systems (Banerji 1984; Rifkin and Walt 1986). Commonly used in preventive care, such as immunization, and maternal and child health; involves supporting public health programmes that are organized along a vertical basis. The services can either be provided directly by government or NGOs.

Facilities: This involves facility-based support for funding health care. The funds are directed at providing the required materials and conditions for government owned facilities to deliver health services. The extent of integration between financing, payment, and organization of delivery is often high.

Class of service: This has to do with equity standard in terms of assuring the availability of a minimum level of service to all, rather than assuring equality in access to health services. Depending on patients' willingness and ability to pay more, they can seek health care services at higher levels that may have better quality and amenities. This could be differential ward classes, like A, B and C services in a public hospital, as is the case in the University College Hospital (UCH), Ibadan and many other tertiary hospitals in Nigeria.

Income or age group: A designated income or age group may be deliberately targeted to receive support. For instance children or women can be specifically targeted with a special intervention fund, as is the case in maternal and child health. Also, low-income health programmes can be designed to cater for those that pass a means-test which qualifies them for free, or nearly free health services.

Region or community: This can be designed to cater for disadvantaged areas or groups of people. It is believed that health care in the North generally lags behind other regions of the country. Thus a deliberate attempt to target people of that region can inform the allocation of tax revenue for health care.

2.1.2 *Inflation*

Inflation may also be employed as an alternative means of financing health services (Sorkin, 1986). When government prints more money to finance revenue deficits,

inflation occurs since such money is not backed by productive activities. The disadvantage of this form of financing is the highly uneven burden allocation, the larger part of which salary earners with fixed income have to bear. This can also have serious consequences for economic growth, savings and investment.

2.1.3 *Earmarked Tax*

This constitutes specially designated tax revenue imposed basically for funding a health care. Such earmarked tax is collected into a separate cover different from the government treasury, created for funding health services. For example, taxes on the sale of particular products may be earmarked for health services either at national level or within a particular local government area. In some developed countries, such earmarked tax is specifically imposed on firms who are involved in the production of legitimate goods and services considered to be harmful to the population health. This can also be replicated for health. Tax levy on alcohol and tobacco, or any other activities which have adverse health implications could be introduced, though this may turn out to be regressive. Though this does not currently occur in Nigeria's health sector, there is something similar in the education sector: the Education Trust Fund. The main advantage of this is the possibility of assigning a tax to fund certain priority programmes.

2.2 Health Insurance

Health insurance is a contract between a health care consumer and a health insurance company* that requires the insurance company to pay or reimburse some or all of a consumer's health care costs when he or she gets sick or needs medical care. A consumer is required to pay a fixed monthly amount as part of the contract, which entitles him to a predetermined benefit package. Health insurance encourages pooling together of the financial risks faced by a large group of people, each of whom have a relatively small probability of significant losses. It also enables individuals to transfer their potential risks to an insurance plan. Insurance is used by most middle and high-income nations to finance a significant portion of their national health care expenditures. Based on the statistical 'Law of Large Numbers', individuals pay a premium, while the health insurance plan is responsible for payment of specified benefits when unexpected adverse health events occur. Health insurance not only allows the insured to get preventive health

care services to help them stay healthy, but also substantially or wholly offset the health care services bill if the insured becomes sick or injured, thus lightening the possible health care financial hardship. Financing health care through insurance can be categorized into two main types: *social insurance* and *private insurance*.

2.2.1 *Social Health Insurance*

Social health insurance financing is indistinct from government tax financing. This is because it is usually mandatory for every eligible person to pay the specified contribution (premium) and subsequently access the agreed benefits. Social insurance is conventionally financed by mandatory premium payments (a percentage of wages) made by employees, which are matched by mandatory payments of a similar or somewhat higher payroll tax to be made by their employers. It is sometimes designed to allow for government contribution to the scheme; while potential beneficiaries may be required to pay user fees (copayment) in addition to the required contribution. Social health insurance premiums and benefits are articulated in social contracts (laws) established through legislation. Future revenues depend on the size and composition of the work force and their earnings, since the scheme is based on a payroll tax. This in turn will depend upon many economic and demographic factors, including future birth rates, death rates, labour force participation rates, and rates of wage increase. On the other hand, social health insurance scheme expenditure depends on the number and profiles of programme beneficiaries, changes in health service prices, and hospital admission rates. The ideal basic requirement to guarantee sustainability is that the insurance programme should be actuarial sound. That is the stream of contributions collected must adequate enough to meet the stream of expenses arising from consumption of health care by the beneficiaries. The usual reluctance to include the rural populace in social insurance schemes is often ascribed to difficulty in screening eligibility and regarding collection of premiums from those in the informal sector. The Nigerian National Health Insurance Scheme (NHIS) is designed to capture and provide coverage for both the urban and rural populace in the formal and informal sectors of the economy, though the current level of coverage is minimal (around 5%) skewed against the informal sector.

2.2.2 *Private Health Insurance*

Historically, private health insurance has been characterised as voluntary, for-profit commercial coverage. However, private coverage around the world, reveals evident that a wide variety of arrangements are described under the umbrella of private insurance, being offered by both for-profit and not-for-profit insurance companies. This kind of insurance is voluntary and can be offered on individual or group basis and consumers are given the choice of the insurance package that best fits their preferences. Premium payment is determined based on the individual's or group's health history and packages are customized to suit beneficiaries. The premium for individual insurance cover is calculated actuarially based on that person's risk characteristics or health profile and the financing rules used to select the risk. The basis for private health insurance is the mutual contract made between the insurers and the beneficiary, stating premium to be paid and accessible benefits when the need arises. The premium charged is also tied to expected benefits plus administrative expenses and profit margin. Any alteration to the content of the insurance plan is subject to agreement between the subscriber and the insurance company.

As a precautionary measure against buyers' adverse selection, private health insurance providers usually demand that buyers of individual health insurance pass a medical examination. Often, a group member is the given option of choosing from an individual or a family plan. For group private health insurance, a uniform basis is set to determine the premium to be paid by each member, while the benefit is usually the same for all members. To limit their financial liability, insurance firms also use techniques such as 'experience rating' to determine the group premium rates. Usually, as a precautionary measure against adverse selection, a minimum number or percentage of employees are required to enroll in the health insurance plan. Provision of health insurance to residents of a particular service area can be initiated and arranged by private health facilities with the capability to sponsor and organize health insurance plans.

2.3 User fees

When patients obtain health services, they often pay directly out-of-pocket. User fees are the amounts paid by the users of health care services at the point of service delivery. The consumer bears the burden through out-of-pocket payment. Though a relatively new term, 'user-fees' happens to be the oldest of the financing

methods. It became a prominent term in Nigeria with the adoption of Structural Adjustment Programme (SAP) in mid-1980s. User-fees financing is seen as capable of improving allocative efficiency, fostering greater responsibility of users and accountability of providers to improve service quality and expand coverage. This term is specifically used to describe the amount that patients have to pay for services rendered by public facilities. User fees can either represent payment of the full charges, or a co-payment (i.e. pay a percentage of full charge), or a flat amount per visit. Health services accessed from private facilities are usually settled through direct out-of-pocket payments; and the bulk of income to private providers is from user fees (patients' direct payments). Application of user fees gained prominence in Nigeria during the SAP era. Its introduction experienced initial resistance, since majority of the populace did not possess the financial capability to pay. Many countries had a similar experience when user fees were introduced as part of general economic adjustment programmes. Consequently, Shaw and Griffin (1995) developed some ways to improve the system of user fees which include:

- Explaining medical charges to patients
- Motivating health facility staff to collect and administer fees
- Establishing systematic collection procedures to improve hospital cost recovery rates
- Structuring prices to ensure value for money
- Adjusting user fees for inflation and investing revenues appropriately
- Permitting alternative forms of payment for low-income households
- Increasing the available resources for health services

2.4 Community financing

Given the inability of governments to reach rural populations and people engaged in the informal sector, communities have increasingly been mobilizing themselves to secure financial protection against the cost of illness for excluded population groups (Bennett et al., 1998; Atim, 1998; Musau,1999; Jakab and Krishnan, 2001).

A community is a cohesive group of households with a strong social bond and mutual trust that enables them to enter into a social contract with each other.

Community financing is a financing mechanism established on community cooperation and self-reliance, in which members pay in advance for the associated benefit package. Hsiao (2000) defines community financing as a sustainable community fund where community members prepay a significant portion of the costs for providing primary care services, essential drugs and for reimbursing some inpatient hospital charges (i.e. risk pooling). The term community is often restricted to rural areas where health financing options and opportunities are limited. Community financing entails active involvement of the community in revenue collection, pooling, resource allocation and, frequently, service provision. The type of actuarial consideration of the community finance is implied by the total amount that can be mobilized, which is indicative of the extent of health care services to be covered. The financing, organizing, and management of health care is done by collectively mobilizing all the community members. According to Hsiao (2000), the term "community finance" has been viewed from different perspectives to include:

- government managed prepayment schemes that require residents of a community to contribute to fund public facilities
- hospital managed insurance schemes where residents have to pay a premium to enrol to use that hospital's services
- community financed and managed primary care health centres

The success of a community financing scheme depends on the people's willingness to pay, which is influenced by the extent of trust they have regarding proper management of their fund to deliver "value for their money"

3. Criteria for Decision on Health Care Financing Policy

The choice of health care financing method or combination of methods is dependent on the intended objectives of the society. These objectives, which are characterized by trade-offs, include: capacity to generate revenue, equity, risk pooling, efficiency, quality, and sustainability. The social values embraced by the public and the political power structure and process significantly influence the eventual health care financing policy choice that is made.

3.1 Capacity to raise revenue

Some health care financing methods are chosen because of their capacity to generate revenue for government. Different methods of health care financing exhibit varying degree of capacity to raise revenue for the health sector activities. Each is assessed in relation to raising revenue below:

General tax revenue: Limited ability to collect general tax in developing countries. Tax revenue process often lead to loss of in resources due to administrative cost required to collect the revenue in the first place.

Social insurance: Finance through wage taxes has greater capacity to raise additional revenue.

Community financing: If well organized and managed, seems to have the capacity to mobilize funds, but limited to the economic capacity of the particular community.

User fees: Has the least capacity to raise revenue for health care financing. The ability to pay on the average tend to diminish as the distribution of income become more uneven, and the incidence of poverty increases.

3.2 Equity

The concept of equity is not a matter of individual preferences but has to do with social justice derived from egalitarianism. Equity is not necessarily about equality, though it may in some instances be expressed in terms of equality. Equity may also be assumed to be established in terms of specified minimum standards. Just as equality can be achieved without equity, so also existence of equity does not guarantee equal distribution of health benefits. The components of equity can be viewed from three perspectives, which are: equity in financing of health care, equity in provision, and equity of outcome.

3.2.1 *Equity in Financing*

Equity in financing emphasizes financing of health care according to ability to pay. Linking health care payments to ability to pay can be interpreted in terms of vertical equity (i.e. households of unequal ability to pay make appropriately dissimilar payments) and horizontal equity (i.e. households of the same ability to pay make the same contribution) (Wagstaff and Van Doorslaer, 1993).

Vertical Equity: The principle of 'equal sacrifice' in utility constitutes the basis for the concept of vertical equity in financing health care. The precise form that the differential treatment should take is accorded consideration in vertical equity assessment. Should better-off households be paying more than worse-off households in absolute terms, i.e. payments could be proportional to ability-to-pay? This is best achieved under the social health insurance system with mandatory contribution of a fixed proportion of income or wage. Should payments be in progressive or even regressive terms, i.e. poorer households paying a larger share of their income than better-off households? Policies and policymakers seldom specify the "appropriate" degree of progressivity, even though policymakers appear to support the application of the ability-to-pay principle to health care finance.

Horizontal Equity: It can be defined in terms of the extent to which those of equal ability to pay actually end up making equal payments, regardless of, for example, gender, marital status, trade union membership, place of residence, etc. (Wagstaff and Van Doorslaer, 1998). Horizontal inequity might arise for a number of reasons. In private insurance, high-risk groups (e.g. the elderly, those with pre-existing conditions, smokers, etc.) often pay higher premiums than lower-risk persons of the same ability to pay. It requires that the differential risk of illness among different groups be considered when designing finance systems. In a social insurance system, different groups may be eligible for different health insurance schemes and hence may face different contribution schedules. Horizontal inequity can arise through anomalies in the personal income tax system (e.g. tax reliefs on mortgage interest payments, or on private health insurance premiums). Existence of horizontal equity is most distorted in a tax-funded system. Despite the priority accorded horizontal equity in developed economies, little or no consideration appears to be given by health planners in developing economies.

3.2.2 *Equity in Provision of Health Care*

It is achieving an equal distribution of health care services through the distribution of health care in a manner that ensures most feasible access. Contrary to vertical equity in finance, equity in the delivery of health care is generally rest on distribution according to **need** rather than according to **willingness** and **ability to pay**. It is closely linked to the concept of horizontal equity whereby people of equal need of health care receives the same treatment irrespective of their income.

3.2.3 *Equity of Health Outcomes*

Equity in health outcome can be considered as having equal health status irrespective of income, location, race and other factors. For instance, there is inequity of health outcomes between the northern and southern regions of Nigeria, because the health status in the north is generally lower on the average. Thus it involves determining the equity or inequity of a system in terms of the level of illness/death or other health indicators among different groups of people (region, income, occupation, race, etc.) instead of assessing access to care.

3.3 Risk pooling

While not ruling out the occurrence of a major accidence or disease involving huge financial expenditures, the likelihood it happening to an individual is slim/small. Age and gender factors constitute variation to this small likelihood/probability. Based on the 'law of large number", the prospect of pooling these risks of catastrophic losses requires that the participant in the risk pool be sufficiently large (minimum or more than 5,000 people as dictated by actuary soundness calculations) to shift the burden from individual to the pool. However, in instance of small pool, the expected financial loss can be stabilized through stop-loss insurance, re-insurance, and other variety of insurance devices, most of which are not available in developing countries.

3.4 Efficiency

Efficiency in raising, allocating and utilizing resources in the light of resource scarcity is crucial to maximizing the health status of a population. While some methods of financing health care, such as user charges, community financing tend to lend themselves efficient use of resources, others like public finance, and health insurance, exhibit some elements of inefficiency. Thus the issues relating to problem raising fund (i.e. inequitable distribution of available funds); allocation of funds (insufficient coordination between different sources of financing); and utilization (inadequate attention to cost and efficiency aspects) significantly plague health sector financing in developing countries. Arising from this is three related but different aspects of the concept of efficiency: efficiency in raising finance, efficiency in public finance, and efficiency in provisions of health care. Decision

to allocate resources between preventive and curative health care, or between rural and urban areas, should accord significant consideration to efficiency issue.

3.5 Sustainability

Broadly defined, sustainability in this context refers to delivery of a service output in a manner that is so valuable to both the local and national community that they are prepared to provide time, resources, and political support to ensure its sustenance for the achievement of longer term outcomes (Stafanini and Ruck, 1992). This has also been narrowly defined as 'the ability of the system to produce benefits valued sufficiently by users and stakeholders to ensure enough resources to continue activities with long-term benefits' (Hsiao, 2000). The degree of sustainability associated with each method of financing defers. The most sustainable of all the methods is health insurance, because of the convenience of payment which hinges on the ability-to-pay, and the shifting of burden from individual to the pool. The main relevant components of sustainability are: financial sustainability, political sustainability, and organizational/managerial sustainability.

Financial sustainability: The degree of obstruction to the flow of fund from the financing sources is indicative of financial sustainability. Experiences of the 1980s in many African countries, including Nigeria have shown that sustenance of funding of health through government cannot be guaranteed. Many countries, as a result of the cut back in budget allocation to health shifted the burden to the household by introducing user fees in public health facilities. Trends in the last two decades have shown that user fee is not sustainable in the presence of increasing incidence of poverty. Attention is now being shifted to health insurance as a veritable alternative.

Political Sustainability: The political landscape of most countries is never stable, especially in the developing countries. Given the differences in ideology of political parties, the change in leadership has implication for financial commitment to the health sector. Also, in instances of dwindling tax resources, the priority accorded funding of health will greatly depend on the political atmosphere. Furthermore, the sustainability of many worthy health programmes is affected by domestic or international political changes.

Organizational Sustainability: The level of organization of a health programme also makes a difference in its eventual success or otherwise. Organizational sustainability depends on such factors as changes in political and market forces, managerial and technical capabilities, and trained health professionals.

4. Health Expenditure Patterns in Nigeria

Based on Soyibo (2005) and Soyibo et al. (2009), this section analyzes estimates of the National Health Accounts for Nigeria. There are three main health financing functions: mobilization, allocation and utilization of health funds. Entities mobilizing and providing health funds are called *financing sources*, while those channelling the funds to pay for, or purchase the activities in the health accounts boundary are known as *financing agents*. Those receiving money in exchange for, or in anticipation of producing the activities in the health accounts boundary are called *providers* or *users*. Financing sources include government (national or federal, state or provincial, and local), households, firms and donor agencies (domestic and foreign). Financing agents include the Ministry of Health (and equivalents at lower levels of government), other ministries and agencies with significant health expenditure (e.g. Defence, Police, Women Affairs, Prisons, etc.), health insurance companies, out-of pocket expenditure (OOP) of households, non-governmental organizations (NGOs), and health units of firms. Providers or users include public and private health facilities, chemists/pharmacies, traditional care providers, health research/training institutions; and administration management of health care.

Between 1998 and 2005, the average annual total health expenditure (THE) of Nigeria was estimated at ₦439.28 billion or about $3.64 billion. The trend in the ratio of THE to GDP indicates that between 1998 and 2003, a lower percentage of GDP was committed to financing health care in Nigeria, but significantly increased to over 7.5 percent in 2003, and consistently dropped to 6.6 percent in 2005. On the average, between 1998 and 2002, total health expenditure amounted to only 4.89 percent of GDP; while as a percentage of GDP it was about 7 percent between 2003 and 2005.

Among financing sources, total government health expenditure (TGHE) as a percentage of THE varied between 14.96 percent in 1998 and the highest value of 27.22 percent in 2001, before dropping to 21.60 percent in 2002 with an average of 19.83 percent over the five-year period. On the other hand, between 1998 and

2004, on per capita basis, the private sector sources dominated households, and dominated health expenditure. This varied between ₦1230 per capita in 1998 and ₦1662 in 2002. In contrast, government per capita expenditure on health care also increased from ₦216 in 1998 to ₦563 in 2001 but declined to ₦458 in 2002. It is interesting to note that per capita government expenditure in 2002 was about a quarter of per capita expenditure by the private sector. This burden on households is also repeated during the second estimation episode. Thus, household health expenditure (HHHE) as a proportion of THE was 74.02 percent in 2003, falling to 65.73 percent in 2004 and rising to 67.22 percent in 2006. This suggests that the equity criteria for choice of health financing options is given little or no consideration in Nigeria. Since this can result in worsening poverty levels, it also indicates that the current approach is not only inefficient but cannot be sustained.

However, the share of each of these four types of financing agents in THE in Nigeria varied significantly. While the share of government[2] financing agents of THE was less than 30 percent on the average between 1998 and 2002; the household through OOP health expenditure shoulders about two-thirds (65.8 percent) of the THE burden. The pattern became more skewed against the household OOP spending over the period 2003-2005, as the government share of THE dropped to less than 28 percent, while OOP share increased to about 70 percent. The contributions of both health insurance (HI) and NGOs are relatively small, being 3.4 percent and 1.7 percent respectively, on the average over the period 1998 to 2002. It further worsened to 2.3 percent and less than 1 percent respectively over the period 2003 to 2005 (table 1). One additional financing agent identified in the second round of NHA estimation for 2003 to 2005 is the firm health department. However, its contribution to THE is insignificant as it accounts for less than 0.7 percent.

The contributions of these two financing agents (out-pocket and government/public) are relatively insignificant. It is therefore not surprising to find that the out-of-pocket household spending is closely correlated with the proportional share of the household as financing source. Similarly, the same pattern applies to government as a financing source, and its ministries and parastatals as financing agents.

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[2] Combining the three tiers of government: federal, state, and local

Table 1. Fund Flow for Health Care by Financing Agents in Nigeria

	First Round					Second Round		
Health Expenditure (Millions)	1998	1999	2000	2001	2002	2003	2004	2005
Govt. Financing Agents	**41,061.13**	**52,393.01**	**72,009.99**	**80,346.22**	**71,297.87**	**149,384.14**	**241,949.21**	**287,562.54**
Federal Ministries	30,295.00	36,808.59	51,714.49	48,528.14	38,153.73	51,580.80	63,516.70	70,057.30
Other Fed. Agencies						923.64	58,407.89	67,433.95
State Ministries	7,172.00	7,547.54	14,652.64	23,946.42	24,369.64	26,016.94	35,438.71	51,010.89
HMB						27,785.78	29,546.48	35,651.09
LGA Health Depts.	3,594.13	8,036.88	5,642.86	7,871.66	8,774.50	43,076.98	55,039.43	63,409.31
Private Financing Agents	**116,020.05**	**127,498.15**	**143,199.14**	**175,937.46**	**207,434.28**	**512,278.05**	**546,774.70**	**689,125.06**
OOP	110,219.10	120,812.54	132,680.79	160,791.75	187,579.89	492,497.40	521,280.39	660,181.24
Firm Health Depts.						3,484.03	6,026.79	6,749.09
Health Insurance.	2,808.95	4,283.81	7,238.05	11,456.66	13,836.39	15,655.54	18,788.97	21,335.38
NGOs	2,992.00	2,401.80	3,280.30	3,689.05	6,018.00	641.08	678.55	859.35
Total Health Expenditure (THE)	**15,7081.1**	**179,891.2**	**215,209.13**	**256,283.42**	**278,732.15**	**661,662.16**	**788,723.91**	**976,687.60**
Govt FAs/THE (%)	26.14	29.12	33.46	31.35	25.58	22.58	30.68	29.44
OOP/THE (%)	70.17	67.16	61.65	62.74	67.30	74.43	66.09	67.59
THE/GDP (%)	5.45	5.42	4.39	4.49	4.70	7.57	6.76	6.63

Sources: Lawanson (Forthcoming)

Government total health expenditure (GTHE) takes into account the contribution of all three tiers of the Nigerian government with varying degrees of contribution by each tier. As would be expected in a federal system where the bulk of the financial resources resides with the federal government, between 1998 and 2002, federal ministries and parastatals on the average accounted for two-thirds (66%) of GTHE, which is about triple that of the state governments' share of 23 percent. The local governments on their part contributed 11 percent, which is less than half of the contribution of state governments. The share of the contribution across the three tiers of government, however, changed significantly in the estimates for the period between 2003 to 2005. While the contributions of federal ministries and parastatals dropped to 44.5 percent of GTHE, the share of the state ministries and LGA health departments increased to 31 percent and 24.5 percent of GTHE respectively.

Presenting a trend analysis of GTHE through government financing agents, the growth pattern of GTHE is examined. The 37.4 percent growth rate of GTHE in year 2000 is typical of the average growth between 1998 and 2005. While it grew at an average of 36.5 percent over the entire period, a decline in GTHE contribution was recorded in 2002 when it dropped by 11 percent, but more than doubled just one year later in 2003. Over the period 1998 to 2002, a simple annual average increase of 16.34 percent was observed, while the annual growth pattern reflected an unstable trend. From a nominal growth rate of 27 percent in 1999, the GTHE increased by 37.4 percent in 2000. However, the rate of increase dropped to 11.6 percent in the succeeding year, 2001, while it experienced a negative growth rate of 11.3 percent in 2002. However, the GTHE nominally increased by 110 percent in 2003; the growth slowed more than in the succeeding years to 62 percent and 19 percent in year 2003 and 2005 respectively.

The share of GTHE in THE fluctuated between 1998 to 2002, while it steadily declined during 2003 to 2005. Over the period 1998 to 2002, the share of GTE in THE progressively increased from 26.1 percent in 1998 to the peak of 33.5 percent in 2000, while it steadily declined to 22.6 percent in 2002. The 2003 to 2005 estimates showed that the GTHE share in THE declined from 30.7 in 2003 to 27.6 percent in 2005. A disaggregation of government commitment to health financing by tier reveals variation in commitment. While the growth rate of health financing by all tiers of government was characterized by fluctuation, increasing growth was maintained at the state level throughout the period. Health financing

through the federal ministries and parastatals declined in 2001 (-6%) and 2002 (-21 percent), as well as at the local government level in 1999 (-30%).

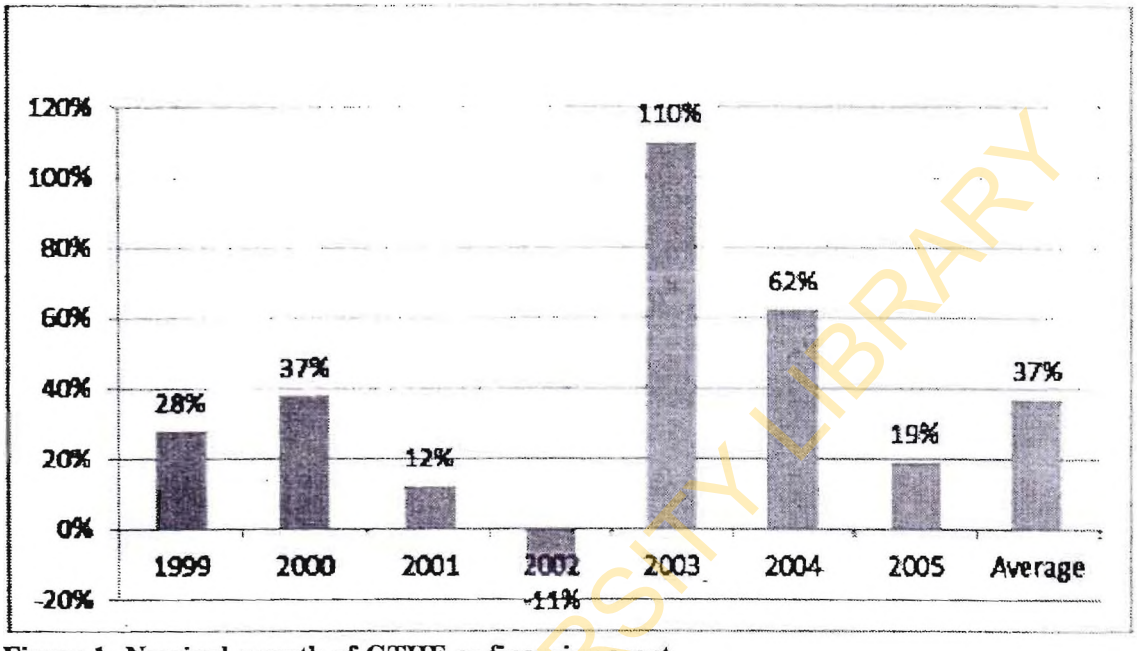

Figure 1. Nominal growth of GTHE as financing agent
Source: Computed from Soyibo (2005) and Soyibo et al. (2009)

Considering that the trend in the share of household OOP health expenditure in THE, which grew on the average by 36 percent, is characterized by an apparently unstable pattern, the increase rate which was less than 10 percent in 1999 and 2000 significantly increased to 21.2 percent in 2001, but declined slightly to 16.7 percent in 2002. A significant increase of 162.6 percent was observed in 2003, but dropped to less than 6 percent in 2004 and rose to 26.6 percent in 2005. On the average, this is indicative of the fact that more of household resources were channelled to health financing. From an over 70 percent share in THE in 1998, the OOP health expenditure of households dropped to 61.7 percent in 2000, but picked up again to 67.3 percent in 2002. It reached its peak in 2003 when it accounted for over 74 percent of THE.

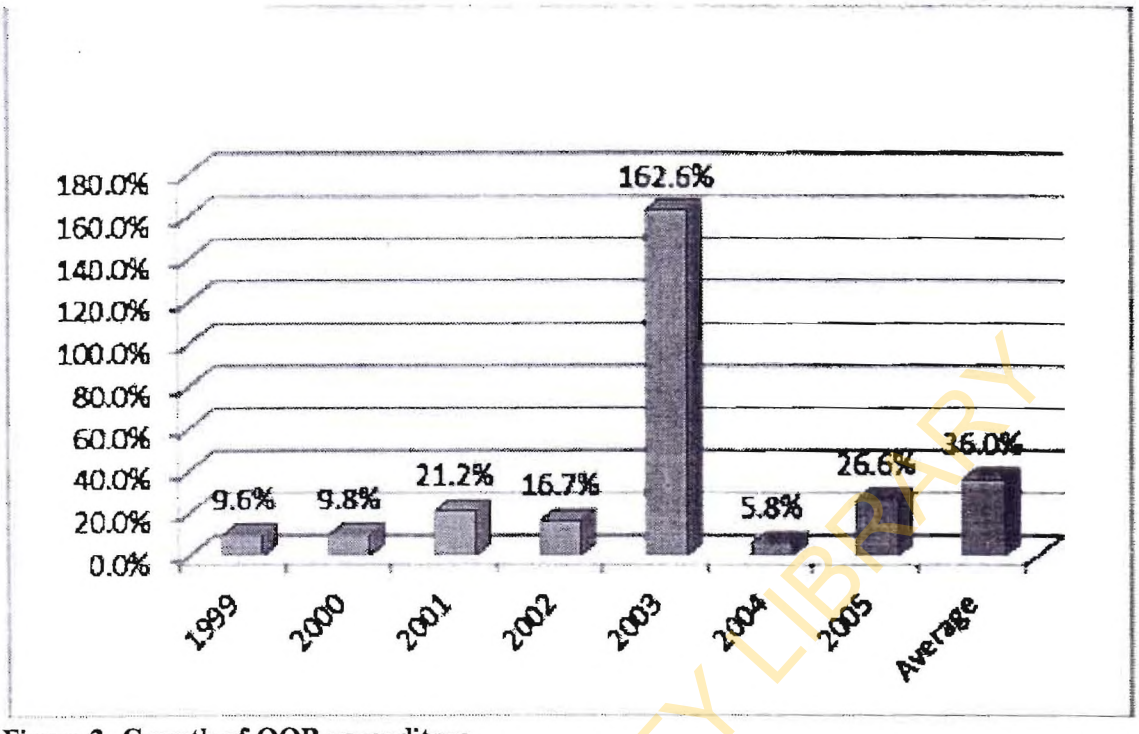

Figure 2. Growth of OOP expenditure.
Source: Derived from data obtained from Soyibo (2005) and Soyibo et al (2009)

The NHA findings for Nigeria indicate that household willingness outpaces government's capacity to mobilize revenue through taxes for health expenditure purpose. Not only do households shoulder a huge and dominant proportion of THE, the rate of increase in commitment over the years has been appreciable.

The least proportion of THE is channelled through NGOs in Nigeria. On the average between 1998 and 2005, health expenditure channelled through NGOs accounted for only 1.1 percent of THE. The funds channelled through the NGOs come mainly from donors. The trend in share of NGOs in THE was not only marginal but also highly irregular. Except for 2002, it generally accounted for less than 2 percent of THE, and was 0.1 percent between 2003 and 2005. While the flow of funds through NGOs increased at an annual average of 5.1 percent, the growth rate of funds during the period between 1999 and 2005 was unstable. The growth was characterized by fluctuation and a negative rate of about -20 percent and -89.3 percent in 1999 and 2003 respectively. The peak of NGOs growth was in 2002, increasing more than 63 percent.

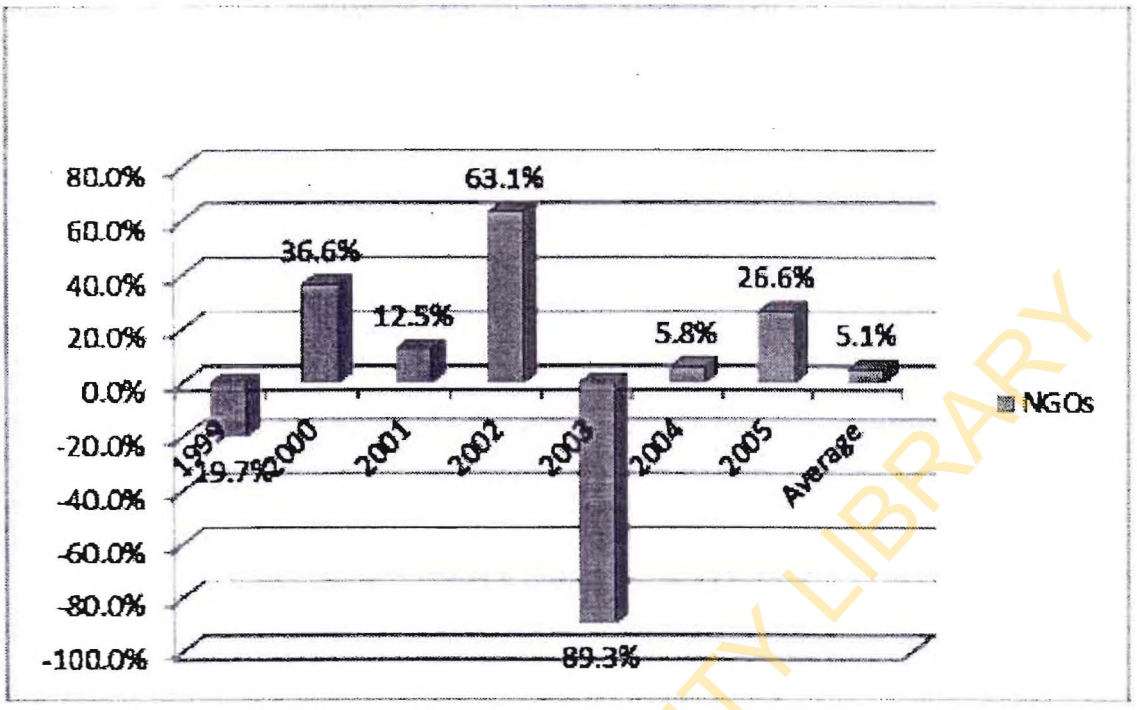

Figure 3. Growth of NFOs' expenditure

Source: Derived from data obtained from Soyibo (2005) and Soyibo et al (2009).

Pooled Fund: Health Insurance

Most middle and high-income nations use insurance to finance a significant proportion of their national health expenditure. Basically, health insurance can be categorized into two: social health insurance and private health insurance (Hsiao, 2000). They are distinguished by two main features: social health insurance is often made compulsory with contributors being entitled to specific benefits as long as the minimum required number of payments are made. Everyone within the eligible group is compelled to enroll and pay the specified premium/contribution, whereas private insurance is voluntary. Also, for social health insurance, the premium and payment terms of the insurance plan is articulated in social contracts based on legislation. For a well-designed and well-managed social insurance scheme, contribution rates and benefits cannot be unilaterally altered by executive decision, but only through new legislation, which requires consensus and support of all stakeholders.

For private health insurance, the premium and benefits are defined in a legal contract. Social insurance programmes are supposed to maintain their own solvency. Part of the requirements, in an **ideal** situation, is that the body/agency charged with the management of the programme should be able to provide accurate assessment of its actuarial soundness for decades to come so as to provide the basis for policy discussion regarding the programme's improvement (Hsiao, 2000).

Adoption and institutionalization of health insurance would serve two main functions in improving the economic welfare of Nigerians. The probability of an individual who has had a major accident, or is suffering from a disease, requiring large financial expenditure is slim. The financial risks facing a large group of people, each of whom has a small probability of significant losses, are pooled together under health insurance. Going by the 'law of large numbers', the slim probability of individuals' losses is transformable into a more predictable, but certain aggregated loss. It also enables individuals to transfer their risks to an insurance player through the payment of a premium while the insurance firm agrees to pay specified benefits when unforeseen events happen. Through health insurance pooling, transfer of resources from the rich to the poor, from the healthy to the sick, and from the employed to the unemployed is facilitated.

Though the proportion of pooled fund flows channelled through health insurance in THE in Nigeria is relatively small, among all financing agents, the sector experienced the fastest average growth rate (35.3%) of flow of fund between 1998 and 2005. During this period, health insurance was generally private sector-driven, while social health insurance was practically non-existent. Though practiced on a relatively small scale by the private sector, the appreciable growth rate of the sub-sector is an indication that the culture of health insurance is gaining ground in Nigeria. This has been further stimulated by the introduction of the social health insurance scheme in 2007. Between 1999 and 2001, the annual financial resource flows through health insurance grew by more than 50 percent (between 52.5% and 69%); though it slowed down to about 21 percent in 2002, fluctuating between 13 percent and 20 percent.

Not only is the rate of funds growth through health insurance remarkable, unlike other financing means, the share of health insurance in THE consistently increased over the period of study. Going by this trend, it is clear that an increasing proportion of Nigerians have come to appreciate the importance of health insurance in funding health care during the period under study. With high

willingness to pay for health care demonstrated by high proportion OOP in the THE, there exists a potential pool of funds that the NHIS can tap into; pooling funds and risks to finance health care in Nigeria.

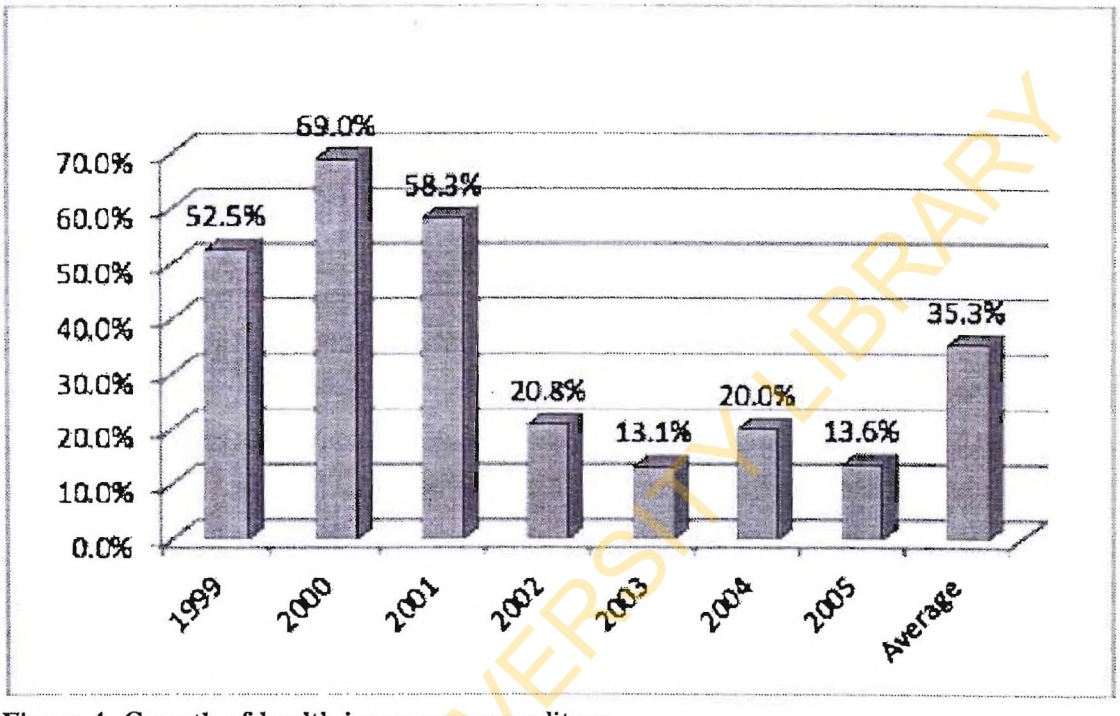

Figure 4. Growth of health insurance expenditure.
Sources: Derived from data obtained from Soyibo (2005) and Soyibo et al (2009).

The health expenditure estimates in Nigeria for the period 2003 to 2005 also include estimates of health expenditure at the state level. Estimates at sub-national level such as states, regions or provinces are known as sub-national health accounts (SNHA). Estimates were obtained for only the 17 states that provided data in time for this analysis to be conducted. They are: Adamawa, Cross River, Delta, Edo, Ekiti, Gombe, Kaduna, Kano, Kebbi, Kogi, Lagos, Ogun, Ondo, Osun, Oyo, Taraba, and Yobe.

Table 2 summarizes the SNHA analysis of the 17 states[3]. Average state total health expenditure (STHE) in 2003 was ₦19.39 billion. This increased by 9 percent to ₦21.1 billion in 2004 and further by more than 25 percent to ₦26.5

[3] The discussion on SNHA borrows substantially from Soyibo, Olaniyan and Lawanson (forthcoming).

billion in 2005. In each of these three years, only six of the 17 states had above average STHE, while the remaining 11 consistently had below average STHE. The least STHE which was ₦6.0 billion in 2003, increased to about ₦8.5 billion in 2005. The highest STHE ranged from ₦74.6 billion in 2003 to slightly more than ₦100 billion in 2005.

Just as observed at the national level, households also bear the burden of health expenditure at the state level. Though the average share of household health expenditure (HHHE) in STHE varied across the states; on the average, HHHE/STHE ranged from 72.1 to 74.6 percent over the three years of study. Even in Lagos State, where the share is least, it ranged between 52.3 and 57.2 percent for the three years. Actually, the majority of states had above average HHHE/STHE. The highest share for the three years in many of the states ranged between 83.2 and 86.3 percent. Between nine and ten states recorded above average share of HHHE in STHE while between seven and eight states had below average share during the same time frame.

When the stewardship role of the state governments in terms of health financing is considered, the contribution of state government health expenditure (SGHE) to STHE in each of the states seems very small. On the average, the share of SGHE in STHE for the three years studied varied between 8.7 and 10.7 percent. The share seems to have progressively increased over the period. The share across the states however varied significantly. The state with the least contribution of SGHE to STHE ranged between 2.2 and 2.8 percent, whereas the state with the largest share varied from 21 to 25.2 percent for the three years. Even worse, between 10 and 11 of the states had less than average share over the study period.

Table 2. Summary of SNHA Analysis for the 17 States in the Sample – 2003 to 2005

		2003			2004			2005		
		Value	No. Above	No. Below	Value	No. Above	No. Below	Value	No. Above	No. Below
STHE	Minimum	6007.63						8489.34		
(₦million)	Average	19386.9	6	11	21110.32	6	11	26462.84	6	11
	Maximum	74576.87			80126.89			100947.59		
HHHE/	Minimum	57.2			52.3			52.9		
STHE (%)	Average	74.6	10	7	72.1	9	8	72.6	9	8
	Maximum	86.3			83.2			85.1		

		2003			2004			2005		
		Value	No. Above	No. Below	Value	No. Above	No. Below	Value	No. Above	No. Below
SGHE/	Minimum	2.2			2.8			2.3		
STHE (%)	Average	8.7	7	10	10	7	10	10.7		
	Maximum	21			23.1			25.2	6	11
LGHE/	Minimum	0.8			0.5			0.4		
STHE (%)	Average	6	9	8	7	9	8	6.6	9	8
	Maximum	13.7			14.9			14		
OOP/	Minimum	57.5			52.6			53.2		
STHE (%)	Average	75	10	7	72.5	9	8	73	9	8
	Maximum	86.4			83.2			85.4		
SHF/	Minimum	9.8			10.2			11.3		
STHE (%)	Average	30.5	7	10	30.6	8	9	31.4	7	10
	Maximum	58.1			55.9			60		
LGHF/	Minimum	4.5			4.2			4.2		
STHE (%)	Average	19.7	7	10	20.5	7	10	20.1	7	10
	Maximum	43.2			43.5			43.6		
PGF/	Minimum	13.4			13.4			13.4		
STHE (%)	Average	30.1	8	9	29.3	8	9	29.5	8	9
	Maximum	60.7			61.1			59.4		
CHE/	Minimum	65.6			62.9			59.7		
STHE (%)	Average	77.8	8	9	76.1	8	9	74.9	10	7
	Maximum	88.9			88.1			88.4		
Per Capita	Minimum	2148.77			2419.53			2945.65		
STHE (₦)	Average	4957.52	7	10	5269.11	6	11	6447.16	6	11
	Maximum	8988.52			9394.41			11513.14		
Per Capita	Minimum	16.61			18.12			22.42		
STHE ($)	Average	38.32			39.47			49.06		
	Maximum	69.48			70.37			87.61		
STHE/	Minimum	0..9			0.8			0.9		
THE (%)	Average	2.9	6	11	2.7	6	11	2.7	6	11
	Maximum	11.3			10.2			10.3		

Notes:

STHE: State Total Health Expenditure

HHHE: Household Health Expenditure

SGHE: State Government Health Expenditure

LGHE: Local Government Health Expenditure

OOP: Out-of-Pocket Health Expenditure

SHF: State Health Facilities

LGHF: Local Government Health Facilities

PHF: Private health Facilities

CHE: Curative Health Expenditure

THE: Total Health Expenditure (National)

The contribution of average local government health expenditure (LGHE) to STHE in the states under study was less than the average contribution of SGHE to STHE. Average LGHE/STHE varied between 6 and 7 percent over the study period. The state with the least share LGHE/STHE had a value of less than 1 percent, while the state with the highest share ranged between 13.7 percent and 14.9 percent during the same period. However, slightly more than half of the states had above average shares.

5. The Challenges and the Way Forward

All health financing means are tied to a particular source(s), and the potential of the flow of funds from these sources being continuous will significantly determine how dependable each of these means will be. The challenges of health financing centre on the sustainability of the sources of the identified means of financing health care in Nigeria. While no nation relies only on one way of financing health care, the combination of different financing means adopted will be influenced by their level of sustainability. It is usually recommended that any chosen mix be designed to preempt perpetual imbalance in the way the relative burden is shared by stakeholders. For the identified health financing stakeholders in Nigeria, the future sustainability of each depends significantly on their ability to keep pace with increased demand on each of them.

Government financing agents rely on general revenue. In the Nigerian context, the four major federal government tax revenue components are petroleum profit tax and royalties, company tax, custom and excise duties, and value added tax (VAT). It has been established that the contribution of personal income tax to the tax revenue of state governments is minimal. On the average between 1998 and 2002, more than half (54%) of the government tax revenue was derived from petroleum profit tax and royalties, while 22 percent was realized from custom and excise duties. Value added tax, which was introduced in 1994, generated 13 percent of government tax revenue, while company income tax contributed 11 percent. This typically implies that none of these tax sources can be considered as a reliable source of health care funding.

The household OOP financing of health care needs is a function of the household income. The viability of sustaining the OOP funding dominance of THE in Nigeria will greatly depend on a corresponding increase in the household income stream. Using real GDP per capita to proxy household income, the growth

of real OOP health expenditure per capita of the household was compared with the growth rate of real GDP per capita. The growth rate of health care funds financed through OOP per capita in real terms significantly outweighs the increase in real GDP per capita. While real per capita OOP finance of health care increased by an annual average of 8.9 percent, the response of per capita income of the household was rather sluggish, being just 1.1 percent. This implies that the burden of financing health through households' OOP has intensified, as households have been forced to commit a higher proportion of their income to finance health care. This suggests that the current dominance of OOP as a major financing agent within the Nigerian health care system may not be sustainable. Besides, it exacerbates the equity problem, as a greater percentage of Nigerian households are getting poorer by the day.

The NGOs, however, rely mainly on donor funds. As health-financing agents, they play a relatively insignificant role in financing health care in Nigeria. Their contribution to health care purchases in Nigeria is not only very small, but has been highly irregular. The volume of health care activities engaged in by NGOs is determined by whatever funds they are able to mobilize from donors. Available information shows that the flow of funds from donor sources is the most uncertain means of financing health care, because it is subject to the goodwill of external bodies whose commitment does not hinge on personal interest.

Similarly, the amount of health care purchases by health insurance as a financing agent will depend on the general income or salary level of workers and the participatory rate of the labour force in the insurance plan. One distinguishing feature of health insurance, especially social health insurance is that it is self-sustaining, and encourages sharing of risk and burden. The quantity of health care purchases financed through health insurance is a function of the size of the formal sector as well as the extent to which the health insurance provision is accommodative of informal sector workers. Health insurance schemes have contributed significantly to improved health care service, as they provide the required incentives for private commitment to provision of high quality health care service and sustainable flow of funds.

The way forward for Nigeria is to totally embrace the social insurance scheme, and make it work. The Nigerian government has initiated the social health insurance scheme as a viable health financing option in the country. The scheme was officially launched in 1997, but eventually took off in July 2005 with initial

limited participation by only core civil servants at the federal level. Within the next few years, the scheme is designed to incorporate other categories of people (formal and informal private sector, including the vulnerable members of the society). With a wider coverage under the NHIS, it is expected that more resources for financing health expenditure will be pooled, while less is left unpooled. The scheme provides for a combination of pooled (insurance premium) and un-pooled (co-payment: proportion of health care cost paid for directly by the beneficiary) elements. Thus the overhead cost of running the health insurance scheme will be distributed over a larger number of contributors and this will minimize the amount/premium contributed. Apart from the promising magnitude of the financing capability of health insurance, it will also positively influence the quality of health care services from providers through implementation of health quality assurance schemes. The clause in the Nigerian NHIS that allows beneficiaries to make their own choice of health care service provider, and to change providers if not pleased with the services being provided is one way of ensuring healthy competition among providers, to capture market share and ensure quality enhancement.

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