AFRICAN JOURNAL OF ECONOMIC POLICY

Vol. 14, No. 1, June, 2007
ISSN 1116-4875

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NATIONAL HEALTH ACCOUNTS: STRUCTURE, TRENDS AND SUSTAINABILITY OF HEALTH EXPENDITURE IN NIGERIA

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ABSTRACT

This paper explored the structure of the contribution of different stakeholders to the financing of health care in Nigeria. The analysis was based on the National Health Accounts (NHA) 1998 to 2002 estimates for Nigeria. The main objective was to assess the viability of each stakeholder as a sustainable means of financing health provision in Nigeria. About two-thirds of health expenditure in Nigeria was directly financed by households, while public sector funding was less than half the amount committed by households. Third-party payment through health insurance represented a minuscule portion. A comparative analysis of the trend in the sources of income of households and revenue of government, revealed a wide disparity that suggested possible non-sustainability of their respective roles in health financing in Nigeria. Apart from the fact that the contributions of NGOs' were very small, they were dependent on donor funds whose vagaries can significantly affect sustainability. Though, health insurance contributed minimally to health financing in Nigeria, its prospect in assuming a significant role appeared to be very bright. The progressive growth of health insurance contributions was an indication of the prospect of the recently introduced National Health Insurance Scheme (NHIS) in Nigeria. The NHIS represents a viable means of pooling resources in such a way that the burden of both the government and the households can be greatly relieved. Thus, the sustainability of financing health care in Nigeria may strongly depend on the extent to which the populace was covered by the health insurance plan.

INTRODUCTION

One essential basis for wise policy change in the area of health financing reforms is adequate information on health financing. Sound estimates of national health expenditure in terms of total spending, the contributions of different sources to spending and the claims on spending by different users of the funds, constitute the starting point to the analysis of health financing. National Health Accounts (NHA) estimates provide a detailed and disaggregated flow of funds matrix, which can significantly influence policy. The

NHA provides decision makers with a holistic picture of the health sector, showing the definite prominence of expenditure and the functions of different players. It further gives a consistent framework for modelling reforms and for monitoring the effects of changes in financing and provision in the health sector.

The path of health care financing a nation decides to thread is a means to an end; and an instrument chosen to achieve specific targets. Though policy development of health financing could be a peculiar task, the adoption of specific financing approach leads to a number of changes, such as:

- Alteration in both patients and providers' economic incentives;
- Changes in the access of health care for particular population groups; and
- Transformation in the organisation of health care delivery.

A number of questions readily come to mind as regards the financing of health in Nigeria. Who are the main actors in health financing? What is the structure of their contributions? What is the trend of health financing? These and other issues are explored in this paper. The main objective is therefore to provide an overview of the trend in the relative financial contributions of different stakeholders to health financing in Nigeria and its implication for its future sustainability. Specifically, the paper sets out to: identify the various actors involved in health financing in Nigeria; assess the prevailing health financing mix in the country; and examine the sustainability implication with respect to revenue mobilisation.

The remaining parts of the paper are organised as follows. Section 2 discusses conceptual issues relating to NHA and its policy relevance, while section 3 focuses on methodology. This is followed by an analysis of structure and trends of health financing in Nigeria in section 4. Here, overview of sources and financing agents is presented over a five-year period. Section 5 focuses on prospects of future sustainability of health financing in Nigeria. The summary and policy implications of the findings are presented in section 6.

REVIEW OF CONCEPTUAL ISSUES

Concept of NHA

The NHA is simply an internationally established method of tracking the sources and uses of funds in the health sector of a country. It provides a systematic, comprehensive and consistent monitoring of resource flows in a country's health system, using standardised tools of measurement to trace all resource flows within the health system over time (Sein, 2002). The NHA estimates are traditionally presented in *sources* and *uses* matrix form, which allows for disaggregated analysis of expenditure, and an understanding of the flow of funds within the health sector. *Sources* relates to the primary origin of the funds, while *uses* are the categories of providers or types of health services on which the fund is expended. Between sources and uses are the financing agents who serve as intermediaries in the disbursement of the fund from sources to specific uses.

The NHA traces all the resources that flow through the health system at a point in time in a particular country. It is designed to capture the full range of information contained in these resource flows and to reflect the main functions of health care financing: resource mobilisation and allocation, pooling and insurance, purchasing of care, and the distribution of benefits. It allows an analysis of the changes in the level and source of all public and private health care expenditures at the aggregate national level, as well as changes in public expenditures that affect allocative efficiency by the central and aggregated local levels of government. (Schwartz, *et al,* 2000).

As a tool, NHA is specifically designed to inform the health policy process, including policy design and implementation, policy dialogue and the monitoring and evaluation of health care interventions. It provides the evidence to help policy makers, non-governmental stakeholders, and managers to make better decisions in their efforts to improve health system performance. If implemented on a regular basis, NHA can track health expenditure trends, an essential element in health care monitoring and evaluation. The NHA could be used as an element of the basis for

resource allocation, by providing information on financing sources, financing agents, functions and providers and also giving snapshot comparisons between countries (Sein, 2002).

Financing sources refer to entities through which resources enter initially into the health system for health goods and services, whether from tax-based, social security, other private entities such as firms, households and/or other entities like donors. Financing agents are institutions receiving and managing funds from financing sources to pay for or purchase health goods and services, including social security schemes, ministries of health, insurance, NGOs and health departments of firms, as well as the households out-of-pocket spending, who often bear a large share of the total health bill (Sein, 2002).

Policy Relevance of NHA

Soyibo (2005), provides an insight into the policy relevance of NHA, as regards its usefulness in providing answers to a number of policy questions such as:

- *Who pays and how much is paid for health?* This is an important question for evaluating health system results and for developing strategies to improve performance. Knowing on whom the burden of financing falls and how large it is relative to their means, illuminates the existence (or otherwise) of financial fairness and the need for financial protection from financing burden. Knowing who contributes to health spending is a valuable information in designing policies and interventions.
- *Who are the important actors in health care financing and delivery and how significant are they in total expenditure?* Understanding both the financing and the delivery of health and health-related services is important to health system performance. How expenditures are distributed among the different financing entities and health care providers is one way of gauging the overall role of each in the health system. It also contributes to developing strategies for reform. The NHA is particularly useful in contrasting the

size and role of government, health insurance and private expenditure on health.

- *How are health funds distributed across the different services, interventions, and activities that the health system produces?* The commitment of health resources to health functions is one valuable measure of the actual priorities of the health system. What share of spending is claimed by collective public health interventions relative to inpatient services, or by interventions for infectious diseases relative to maternal health or cardiovascular conditions? Measures like these are also excellent indicators of whether policies to shift resources are working. The NHA can also contribute to the analysis of cost-effectiveness and health services efficiency, by linking expenditures with outputs and outcomes.
- *Who benefits from health expenditure?* Knowing where health expenditure lands in terms of their financial value is one important measure for assessing fairness in distribution. There are a number of important dimensions that have great relevance to policy, such as socio-economic, gender, age, and geographical distribution.

METHODOLOGY

This study analysed secondary data based on the estimates of the NHA of Nigeria, 1998 to 2002, and sources of government and household expenditures like tax and household income, respectively. It used the structure of the sources as well as the structure of the quantum of funds passed through financing agents to demonstrate the weakness of the present system in providing health funds in a sustainable way using descriptive statistics. The sustainability question is addressed by assessing the viability of the sources of funding to continue to support the financial burden trend shared by the financing agents who are the purchasers of health care services.

Though, information from NHA estimates were presented by financing sources, financing agents, functions, and providers,

this study relied on the information from the first two as relevant to the study objectives. We examined the general tax revenue as the primary source from which government derives funds allocated for health purpose, while on the part of households, their income, proxied by the per capita income constitutes the principal source from which their health expenses were made. For NGOs, their primary source lies in the flow of funds from donors, as this constitutes the main source of funds with which the NGOs carry out their health care related activities. The relative trend in the volume of health care purchases by the financing agents and the growth of the main sources which they relied on was an indication of the sustainability of the financing agents to continue to serve as a viable financing means to support health services provision.

THEORETICAL FRAMEWORK

The measurement of health expenditure is one way of estimating the economic burden of diseases. Economic burden of diseases is commonly measured by the cost of illness (COI). Three approaches are often adopted in measuring the economic burden of diseases: micro, meso, and macro. Micro approaches measure the direct effect of diseases on individuals and households while macro approaches are helpful in measuring the impact on the entire economy. The meso approach, however, is concerned with measuring the impact on households as well as capturing some societal impacts on sectors such as agriculture and transportation (Laximinarayana, 2006).

The COI studies typically follow one of two methods: the human capital method (HCM) and the willingness to pay (WTP) method. The first approach consists of measuring *direct* and *indirect* costs of illness and diseases. Direct costs of diseases include actual expenditure: public and private on disease prevention and treatment (including administration and research), while indirect costs measure productivity losses associated with illness, foregone income of both patient and caregiver (Rice and Hodgson, 1985; Rice, 1994). They also include income foregone due to death of the patient. Theoretically, they should include costs

of disutility (pain and suffering) associated with being ill, however, they rarely do because of difficulty in precisely measuring these in economic terms.

In contrast, WTP approach avoids the difficulties associated with accounting for all costs associated with illness by assessing for example the monetary value that people place on averting illness. Rather, the approach uses a stated preference approach to directly obtain from individuals what they would be willing to pay to avoid illness. However, both approaches have their drawbacks. The WTP approach produces estimates of COI that are multiples of those produced by HCM methodology (Cropper and Lampietti, 2000).

The NHA is usually concerned with actual expenditure for *restoring, improving,* or *maintaining* health. Accordingly, it measures only the direct cost of preventing and treating illness. Such expenditures are those expended by households, firms, donor agencies and others. It is not concerned with indirect costs of illness, like opportunity cost of lost hours due to illness by patient and caregivers as well as income lost due to death. The NHA therefore uses both the micro, meso and macro approach to estimating *direct* COI only. This is the approach adopted in this study.

ANALYSIS OF FINDINGS

Both public and private sectors share in the funding of health care, and as in most countries, private sector financing plays a dominant role in funding health in Nigeria. Private sector financing refers to funds paid directly to health care providers from private sources, including household expenditures such as out-of-pocket payments, expenditures through private insurance plans, employers' direct payments for health services, and charitable contributions (Schieber and Maeda, 1997). In recognising the existence of different methods of financing or sourcing for health care, it needs be borne in mind that the choice of any particular method or combination of methods is influenced by the history, culture, available institutions, as well as the kind of objectives and trade-

offs à nation is poised to adopt. The criteria for selection of appropriate method of health care financing are usually premised on the perceived ability of a method to achieve the objectives of the capacity to generate revenue, promote equity, risk pooling, efficiency, quality and sustainability. Since each method is characterised by its own merits and demerits, no single method can categorically be pinpointed as perfectly adequate to optimise all the objectives. Thus, most countries finance the major proportion of their health expenditure from two or more sources.

Funding of Health Care in Nigeria

Based on Soyibo (2005), we provide an overview of the contributions of stakeholders in the different financing categories in the Nigerian health sector. Between 1998 and 2002, the average annual Total Health Expenditure (THE) of Nigeria was estimated at ₦217.42billion or about $1.8billion. The THE experienced an appreciable growth over the years. It consistently increased from N157.1billion in 1998 to N278.7billion in 2002 (Table 1), representing a simple annual average nominal growth rate of about 15 per cent (Fig. 1). The increase in the THE appears not to be keeping pace with the growth of the economy. The trend in the ratio of the THE to GDP indicates that lower percentage of GDP is committed to financing health care in Nigeria. On the average, between, 1998 and 2002, THE amounted to only 4.89 per cent of the GDP, indeed, the ratio of THE to GDP assumed varying proportions during the period. While the ratio of THE to GDP in 1998 and 1999 was more than five per cent, it was generally less than five per cent between 2000 and 2002, though progressively on the increase. In what follows, we provide an analysis of the contributions of the components of different health financing stakeholders in Nigeria, vis a vis health financing sources and health financing agents.

Financing Sources

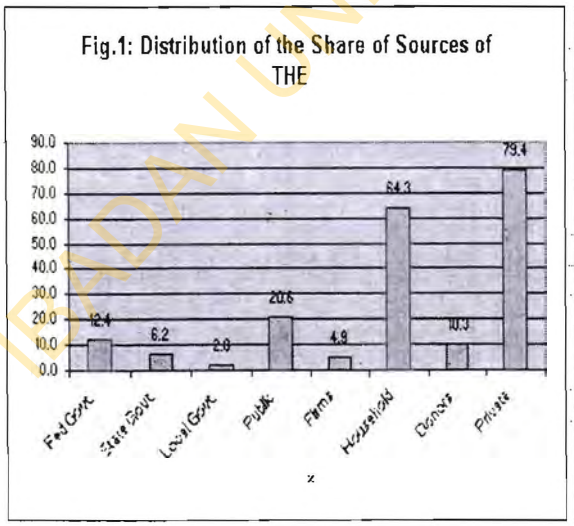
The major financing sources of fund for health care services in Nigeria for which adequate data are available are the government, households, firms and donors. The non-availability NHA estimates, has created in the past the erroneous belief that the burden of health financing in Nigeria rests more on the government. This belief and the need to allow for greater participation of other stakeholders necessitated the emergence of the reform of the health financing structure in the country. The reality is that the bulk of the health resources in Nigeria are sourced from the private sector, of which the households are dominant, while government just plays complementary role. On the average, between 1998 and 2002, almost 80 per cent of the total resource flow to the health sector was sourced from the private sector, while barely above 20 per cent was sourced from government (Fig. 1). There was slight improvement in the share of government in the THE in years 2001 and 2002, as its share rose to 27.5 per cent and 21.6 per cent, respectively (Table 1).

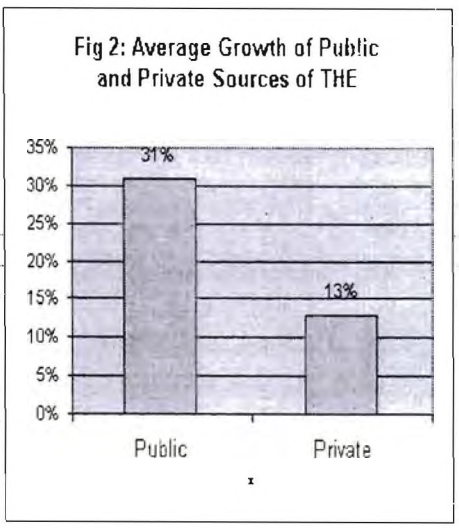
Both the public and private contributions to health care financing experienced varying degrees of nominal growth rate between 1999 and 2002. The rate of growth of public contribution increased steadily from 27 per cent in 1999 to 75 per cent in 2001, but declined by 15 per cent in 2002, implying an appreciable annual average growth of 31 per cent. Though, the private contribution to the THE did not decline in any of the years, it fluctuated significantly over the period, having an average annual growth of 13 per cent. The three tiers of government constitute the public financing source. The contribution of each tier appears to reflect their share of revenue from the federation account. While the Federal Government accounted for about 60 per cent of the total public financing sources for health care on the average, the states collectively contributed less than 30 per cent and the local governments (LGs) accounted for less than ten per cent (Table 1).

Table 1: Funds Flow of Health Care Financing by Sources in Nigeria

Year	1998	1999	2000	2001	2002	Average
Federal	15199 (9.68)	16866.03 (9.38)	22781.25 (10.59)	45878.14 (17.90)	34538.73 (12.39)	27052.63 (12.44)
State	6162.13 (3.92)	6486.68 (3.61)	13552.27 (6.30)	20417.09 (7.97)	20660.43 (7.41)	13455.72 (6.19)
LGA*	2141 (1.36)	6530.14 (3.63)	4057.73 (1.89)	4270.73 (1.67)	5012.71 (1.80)	4402.46 (2.02)
Total Public	23502.13 (14.96)	29882.85 (16.61)	40391.25 (18.77)	70565.96 (27.53)	60211.87 (21.60)	44910.81 (20.65)
Firms	4308.4 (2.74)	6313.989 (3.51)	10046.77 (4.67)	14646.75 (5.72)	17817.91 (6.39)	10626.76 (4.89)
Households	108720 (69.21)	118782.4 (66.03)	129872.7 (60.35)	157601.7 (61.50)	183598.4 (65.87)	139715 (64.25)
Donors	20551 (13.08)	24911.96 (13.85)	34899.04 (16.22)	14269.05 (5.57)	17104 (6.14)	22347.01 (10.28)
Total Private	133579.4 (85.04)	150008.3 (83.39)	174818.5 (81.23)	186517.5 (72.78)	218520.3 (78.40)	172688.8 (79.42)
Total	157081.1	179891.2	215209.1	256283.4	278732.2	217439.4
THE/GDP (%)	5.45	5.42	4.39	4.49	4.70	4.89

Source: Soyibo (2005). Note: Percentage share of total in parenthesis.
* LGA means Local Government Area





The three components of the private health financing stakeholders are the households, firms, and donors. While more than 64 per cent of the THE financing are from the households, the donors and firms contributed 10.28 per cent and 5 per cent, respectively (Table 1).

Examining the trend in the contributions of the three private sources showed that their rate of growth defers significantly. While the contribution of households and firms grew on the average by 14 per cent and 45 per cent, respectively, donor contributions grew by only 6 per cent (Figures 4, 5 and 6). Both the households and the firms consistently grew over the years, while the contribution of the donor declined in 2001, when it shrunk by about 60 per cent.

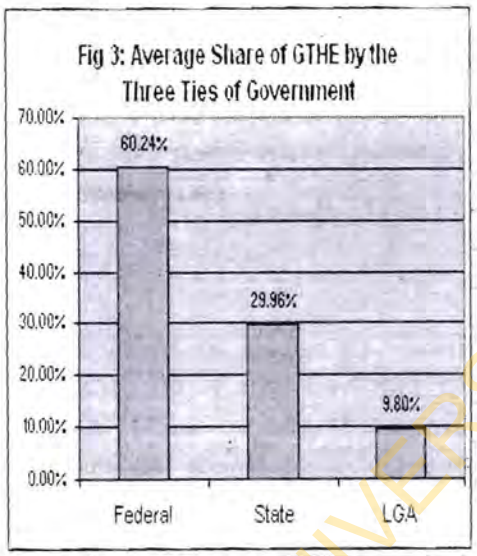
Financial Agents

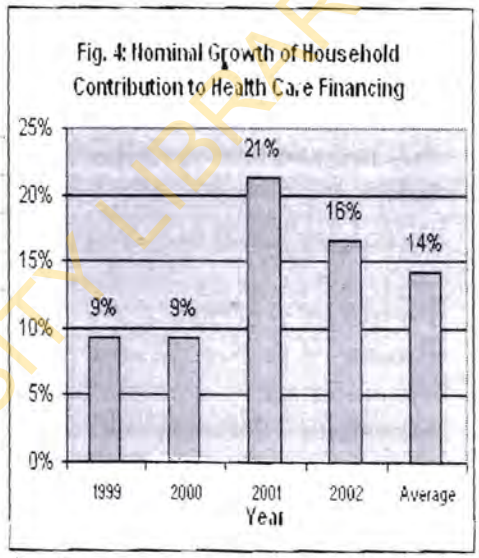
Basically, in Nigeria, four types of financing agents are involved in the purchase of health care services. The first type is government ministries, departments, and agencies as financing agent. These include ministries of health at federal and state levels, as well as LG Department of Health, and other ministries and agencies of government at federal and state levels, which spend significantly on health like defence and police. Other financing agents are households in form of out-of-pocket (OOP) health expenditure, health insurance and the non-governmental organisations (NGOs).

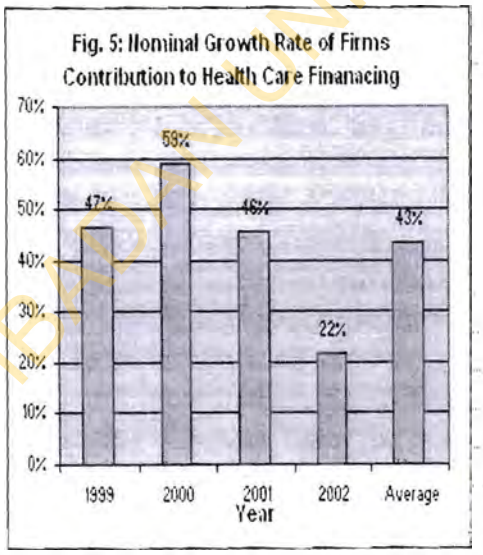
The involvement of donor funds in health care delivery in Nigeria is channelled through government ministries and agencies, as well as through NGOs. The share of each of these four types of financing agents in THE in Nigeria varied significantly. While the government[1] share of the THE is less than 30 per cent on the average between 1998 and 2002, the household through OOP health expenditure shoulders about two-third (65.8 per cent) of the THE burden. The contributions of both Health Insurance (HI) and NGOs are relatively small, being 3.4 per cent and 1.7 per cent, respectively, on the average (Table 2). The shares of these two financing agents are relatively insignificant. It is therefore not

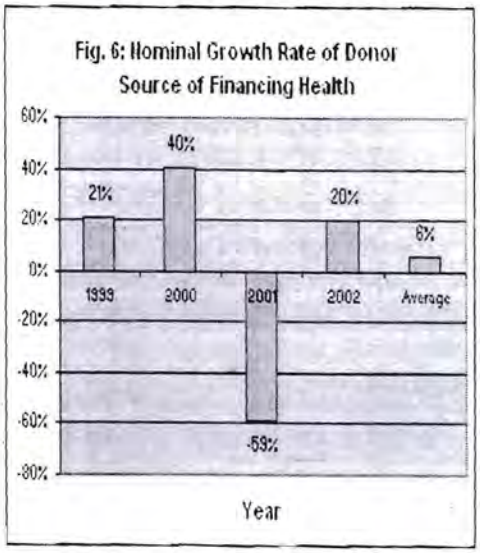
[1] Combining the three tiers of government: Federal, State, and Local governments

unexpected to observe the OOP spending of the household being 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.









Source: Derived from data obtained from Soyibo (2005)

Table 2: Fund Flow for Health Care by Financing Agents in Nigeria

	1998	1999	2000	2001	2002	Average
Federal Ministries	30295 (19.3)	36,808.59 (20.5)	51,714.49 (24.0)	48,528.14 (18.9)	38,153.73 (13.7)	41100.0 (19.3)
State Ministries	7172 (4.6)	7,547.54 (4.2)	14,652.64 (6.8)	23,946.42 (9.3)	24,369.64 (8.7)	15537.6 (6.7)
LGA Health Departments	3594.13 (2.3)	8,036.88 (4.5)	5,642.86 (2.6)	7,871.40 (3.1)	8,774.50 (3.1)	6784.0 (3.1)
Public Financing Agents	41061.13 (26.1)	52393.01 (29.1)	72009.99 (33.5)	80345.96 (31.4)	71297.87 (25.6)	63421.6 (29.1)
Health Insurance	2808.95 (1.8)	4,283.81 (2.4)	7,238.05 (3.4)	11,456.66 (4.5)	13,836.39 (5.0)	7924.8 (3.4)
Out of Pocket	110219.1 (70.2)	120,812.54 (67.2)	132,680.79 (61.7)	160,791.75 (62.7)	187,579.89 (67.3)	142416.8 (65.8)
NGOs	2992 (1.9)	2,401.80 (1.3)	3,280.30 (1.5)	3,689.05 (1.4)	6,018.00 (2.2)	3676.2 (1.7)
Private Financing Agents	116020.1 (73.9)	127498.2 (70.9)	143199.1 (66.5)	175937.5 (68.6)	207434.3 (74.4)	154017.8 (70.9)
Total	157081.1	179,891.16	215,209.13	256,283.42	278,732.15	217,439.39

Sources: Computed from Soyibo (2005). Note: Percentage share in parenthesis.

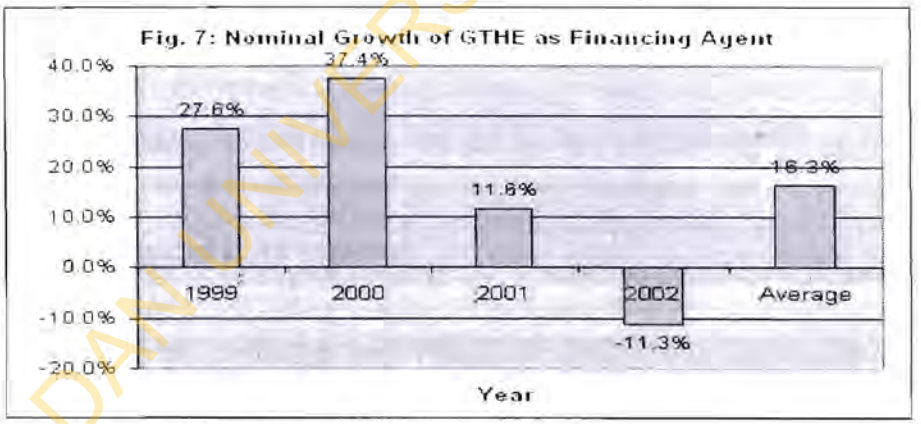
Government Financing Agents

The government total health expenditure (GTHE) takes into account the contributions of all the three tiers of government in Nigeria with varying degrees of contribution by each tier. As would be expected in a federal system where the bulk of the financial resources reside with the Federal Government, between 1998 and 2002, federal ministries and parastatals on the average accounted for two-third (66 per cent) of GTHE, which is about three-fold that of the state governments' share of 23 per cent. The LGs on their part contributed 11 per cent, less than half of the contribution of state governments

Presenting a trend analysis of GTHE through government financing agents, this indicates a simple annual average increase of 16.34 per cent between 1999 and 2002, while the annual growth pattern reflects an unstable trend. From a nominal growth rate of 27.6 per cent in 1999, the GTHE increased by 37.4 per cent in 2000. However, the rate of increase dropped to 11.6 per cent in the succeeding year, 2001, while it experienced a negative growth rate

of -11.3 per cent in 2002. Similarly, the shares of GTHE in THE fluctuated between the period 1998 and 2002. During the period in question, government assumed a relatively increasing role in health financing.

However, the years 2001 and 2002 witnessed progressive decline in amount of funds channelled through government ministries and parastatals (Fig. 7). A disaggregation of government commitment to health financing by tier, reveals variation in commitment. While the rate of growth of health financing by all tiers of government was characterised by fluctuation, at the state level, increasing growth was maintained throughout the period of study. Health financing through the federal ministries and parastatals declined in the year 2001 (-6 per cent) and 2002 (-21 per cent), as well as at the local government level, in 1999 (-30 per cent) (Table 2).



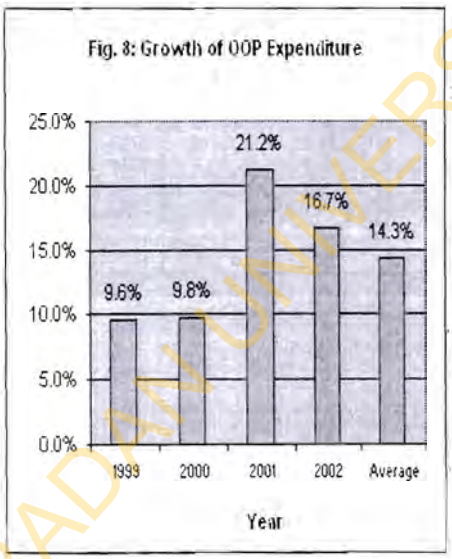
Source: Computed from Soyibo (2005)

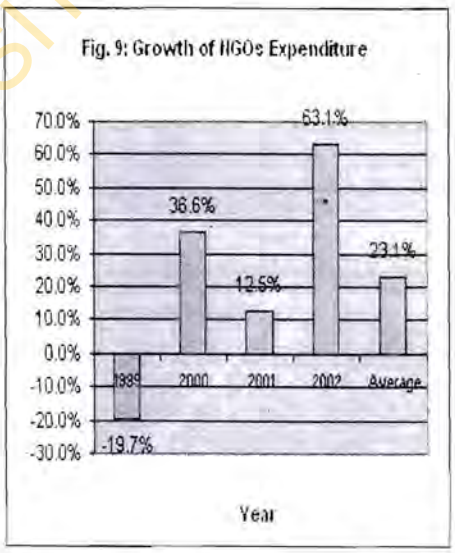
Household OOP Expenditure

Considering the trend in the share of household OOP health expenditure in THE, the pattern appears to be unstable. The rate of increase which was less than ten per cent in 1999 and 2000, significantly increased to 21.2 per cent in 2001 but declined slightly to 16.7 per cent in 2002. This is an indication of the fact that more of the household resources are channelled to health

financing. With as high as more than 70 per cent share in THE in 1998, the OOP health expenditure of households dropped to 61.7 per cent in 2000, but picked up again to 67.3 per cent in 2002 (Table 2).

The NHA findings of Nigeria indicate that the households' WTP outpaces government's capacity to mobilise revenue through taxes for health expenditure purpose. Not only does the households shoulder a huge and dominant proportion of the THE, the rate of increase in commitment over the years, has been appreciable. On the average, between 1999 and 2002, the household OOP health expenditure experienced an annual increase of 14.3 per cent (Fig. 8). In 1999 and 2000, the household OOP health expenditure grew by 9.6 per cent and 9.8 per cent respectively. Whether this is commensurate with ability to pay is another question.





Source: Derived from data obtained from Soyibo (2005)

NGOs

The least proportion of THE is channelled through NGOs in Nigeria. On the average between 1998 and 2002, health expenditure channelled through NGOs accounted for only 1.7 per cent. 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 (Table 2). Except for 2002, it generally accounted for less than two per cent. While the flow of funds through the NGOs increased at an annual average of 23 per cent, the rate of growth of fund over the years between 1999 and 2002 has been unstable. The growth is characterised by fluctuation, and a negative rate of about -20 per cent was even experienced (Fig. 9).

Pooled Fund: Health Insurance

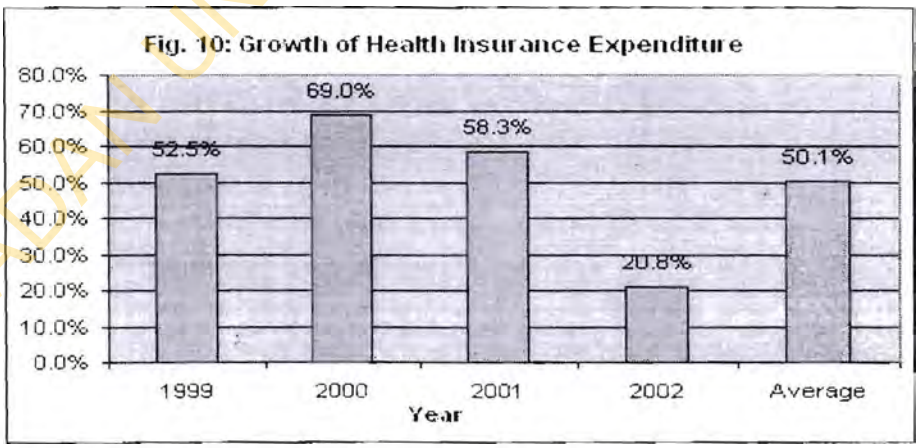
Most middle- and high-income nations use insurance to finance a significant proportion of their national health expenditure. Basically, health insurance can be categorised into two: social health insurance and private health insurance (Hsiao, 2000). Two main features basically distinguished social health insurance and private health insurance. First, social health insurance is often made compulsory, and contributors are entitled to specific benefits as long as minimum number of payment is paid. All persons within the eligible group are compelled to enrol and pay the specified premium/contribution, whereas private insurance is voluntary.

Second, for social health insurance, the terms of the insurance plan with regards to premium and payment is described in social contracts based on legislation. For a well-designed and well-managed social insurance, 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 meant to maintain their own solvency. Part of the requirement here, in an *ideal* situation is that the body/agency charged with the management of the programme should be able to provide accurate assessment of the actuarial soundness of the programme for decades into the future in order to provide basis for policy discussion to improve the programme (Hsiao, 2000).

Adoption and institutionalisation of health insurance stand to serve two main functions in improving the economic welfare of Nigerians. The probability of an individual to suffer from a major accident or disease requiring large financial expenditure is small. 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 number" small probability of losses of individuals is transformable into a more predictable, but certain aggregated loss. Second, it 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 uncertain events occur. Through health insurance pooling, the transfer of resources from the rich to poor, healthy to sick, and employed to unemployed is facilitated.

Though the proportion of pooled fund flows channelled through health insurance in the THE in Nigeria is relatively small among all financing agents, the sector experienced the fastest average growth rate (50.1 per cent) of flow of fund between 1998 and 2002 (Fig. 10). Health insurance over this period was generally private sector-driven, while social health insurance was basically non-existing. Though practiced on a relatively small scale by the private sector, the appreciable rate of growth of the subsector is an indication of the fact that the culture of health insurance is gaining ground in Nigeria. Between 1999 and 2001, the annual financial resource flows through health insurance grew by more than 50 per cent (between 52.5 per cent and 69 per cent), though slowed down to about 21 per cent in 2002 (Fig. 10).



Sources: Derived from data obtained from Soyibo (2005)

Not only is the rate of growth of funds through health insurance remarkable, unlike other financing means, the share of health insurance in THE consistently increased over the period of study. As a proportion of THE, it increased progressively from 1.8 per cent in 1998 to five per cent in 2002 (Table 2). Given by this trend, it is clear that an increasing proportion of Nigerians has come to appreciate the increasing importance of health insurance in funding health care, in the period under study. With high WTP for health care demonstrated by high proportion OOP in the THE, there exists a potential pool of funds that the NHIS can tap in pooling funds and risks to finance health care in Nigeria.

FUTURE SUSTAINABILITY OF HEALTH CARE FINANCING IN NIGERIA

All health financing means are tied to particular source(s), and the potential of the continuous flow of funds from these sources will significantly determine how dependable each means will be. While no nation relies only on one means of financing health care, the mix of the different financing means adopted will be influenced by the degree of their sustainability. Any chosen mix is usually recommended to be fashioned in such a way as to guide against perpetual imbalance in the sharing of relative burden. For the identified health financing stakeholders in Nigeria, the future sustainability of each significantly depends on the ability to keep pace with increased demand on each of them. While government financing agents rely on general revenue, the household OOP financing of health care is a function of the household income. The NGOs, on the other hand, rely on the flow of funds from donors.

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. In this section, we explore a comparative analysis of the historical relative trends in the amount of health care purchases by major financing agents in Nigeria and the flow of funds from their corresponding financing sources, with

a view to determining the sustainability of each financing agent as a viable financing means for health care needs of Nigerians.

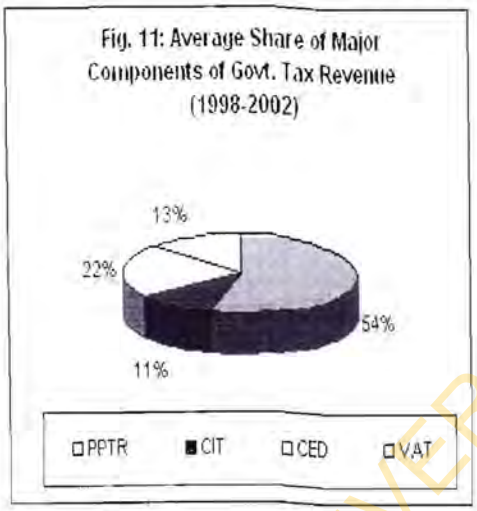
Sustainability of Government Financing Agents

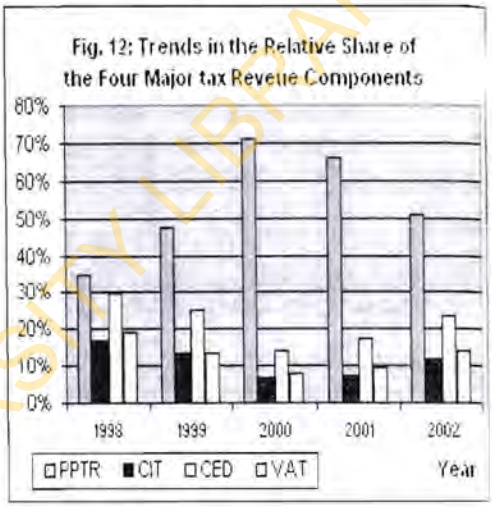
Having established the unstable pattern that characterised GTHE, there is the need to provide an insight to the major sources of general/tax revenue to the government, from where health expenditure is financed. In the Nigerian context, the four major Federal Government tax revenue components are petroleum profit tax and royalties; company tax; custom and excise duties; and value added tax (VAT). Personal income tax is levied by state governments, except for armed forces, police, external affairs personnel, and income tax of residents of the Federal Capital Territory (FCT) that accrue to the Federal Government. It has been established that the contribution of personal income tax to the tax revenue of state governments is minimal. This is due to the fact that only a small proportion of the labour force is employed by the formal sector, while most of the workers in the informal sector often evade tax, and where they pay, the amount paid often has little bearing with their economic base.

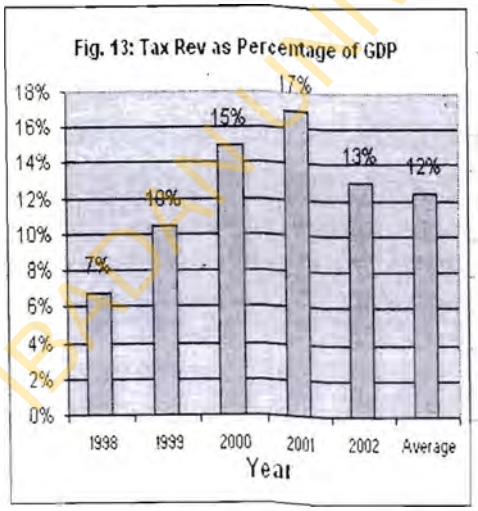
On the average, between 1998 and 2002, more than half (54 per cent) of the government tax revenue was derived from petroleum profit tax and royalties, while 22 per cent was realised from custom and excise duties (Fig. 11). VAT, which was introduced in 1994, generated 13 per cent of government tax revenue, while company income tax contributed 11 per cent. However, the relative shares of each tax component significantly fluctuated over time (Fig. 12). This typically suggests that none of the tax sources can be considered as reliable source of funding health care.

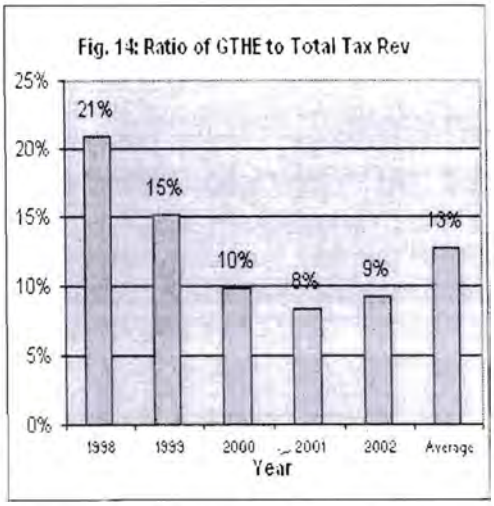
As in most low-income countries, the ability of the Nigerian government to generate general taxes seems to be severely limited, with the ratio of general tax revenue to GDP often being less than 15 per cent. The proportion of tax revenue from the four identified major sources to GDP as shown in Figure 13 is low. In 1998, tax revenues turned out to be only seven per cent of GDP. It progressively increased over the years from ten per cent in 1999, through 15 per cent in 2000, to 17 per cent in 2001, but however

declined to 13 per cent in 2002. The small ratio of tax revenue to GDP is an indication of the non-viability of government continued funding of health expenditure as a potent major source. Further, it appears that the share of tax generated allocated to GTHE has generally been low during the period of study, averaging 13 per cent. From a relatively high ratio of 21 per cent in 1998, the ratio of GTHE to total tax revenue continuously declined to eight per cent in 2001, but slightly picked up to nine per cent (Fig. 14).









Sources: Derived from data obtained from Soyibo (2005) and CBN Annual Report and Statement of Account (various issues).

A look at the commitment of each tier of government to health expenditure as a proportion of their total budget revealed that less than five per cent is generally committed to health care. On the average, 3.6 per cent of the Federal Government total budget is earmarked for health sector. The THE at the state level (STHE) is just 4.19 per cent of their total budget package. On the part of the LGs, a relatively higher proportion (6.89 per cent) of their budget is devoted to health expenditure on the average (Table 3).

Table 3: Share of Health Budget in Government Total Budget (%)

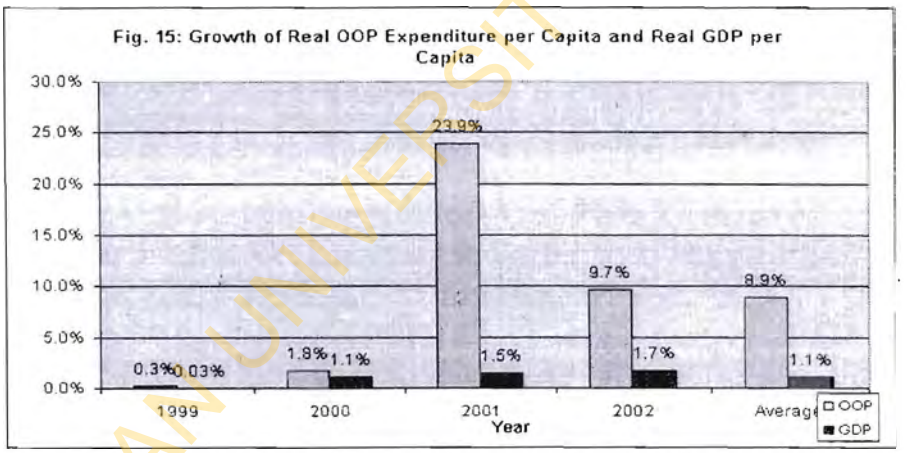
Year	1998	1999	2000	2001	2002	Average
Federal Government	2.80	1.71	2.92	4.39	6.20	3.60
State Governments	5.01	4.50	4.07	4.01	3.36	4.19
Local Governments	7.73	13.30	3.67	4.59	5.17	6.89

Sources: Derived data obtained from Soyibo (2005) and CBN Annual Report and Statement of Accounts (various issues).

The share of Federal Government total budget earmarked for health varied between 1.7 per cent in 1999 and 6.2 per cent in 2002. The relative commitment of the states has progressively declined over the years. The STHE as percentage of their total budget consistently declined from five per cent in 1998 to 3.4 per cent in 2002. The commitment of the LGs to health has been relatively encouraging, though the significant rise in the share of local government total health expenditure (LTHE) in total budget of LGs increased from 7.7 per cent in 1998 to 13.3 per cent in 1999, it drastically fell to 3.7 per cent in 2000, but subsequently picked up progressively to 5.2 per cent in 2002. Though the role of government in financing health care cannot be undermined, it is obvious from the foregoing that total reliance on government as the major health financing agent will not be sustainable.

Sustainability of OOP Funding

The viability of sustaining the OOP funding dominance of the THE in Nigeria will greatly depend on a corresponding increase in the stream of household income. Using the real GDP per capita to proxy the income of household, we tried to compare the growth of the real OOP health expenditure per capita of the household with growth rate of real GDP per capita. As depicted in Figure 15, the gap is extremely wide. The rate of growth of health care funds financed through OOP per capita in real terms significantly outweighs the increase in real GDP per capita. While between 1999 and 2002, the real per capita OOP finance of health care increased by annual average of 8.9 per cent, the response of the per capita income of the household was rather sluggish, being just 1.1 per cent.



Sources: Derived from data obtained from Soyibo (2005) and CBN Annual Report and Statement of Account, Various issues

This implies that the burden of financing health through OOP by the households has intensified, as households have been forced to commit higher proportion of their income to finance health care. Further, this suggests that the current dominance of OOP as a major financing agent within the Nigerian health care system may not be sustainable. The implication on the household welfare is that lesser proportion of other items in the consumption

basket of households will be available. For the household to remain a viable stakeholder, there is the need for an appreciable and rapid increase in the per capita income of the country. This is at best a medium-term endeavour.

Sustainability of NGOs Funds

The NGOs as health financing agents play a relatively insignificant role in financing health care in Nigeria. Not only is the contribution of NGOs to health care purchases in Nigeria very small, their share has been highly irregular. The sources of funds with which NGOs purchase health care can be traced to donors. The volume of health care activities they are able to engage in is determined by the available funds that they are able to mobilise from the donors. Thus, the vagaries of their contribution are strongly tied to the fluctuation in the amount of funds that the donors are ready to part with.

Available information shows that the donor source of funds flow for financing of health care is the most uncertain means, because it is subject to the goodwill of external bodies whose commitment does not hinge on personal interest. More so, the ability to attract donor funds depends on being able to satisfy certain conditions and the quantum of available funds to be shared among many countries. Flow of donor funds is usually not guaranteed, and can be cut off at any time, probably as a result of inability to secure fresh flows when existing ones elapse. The irregular and fluctuating flow of funds experience of Nigeria from donors clearly show that it is unlikely to be sustainable. Available data shows that the activities of the NGOs are strongly tied to the stream of funds from donors. Therefore, the ability of NGOs to sustainably support health financing in Nigeria may not be viable, more so, that donor fund flows cannot be indefinite.

Sustainability of Health Insurance

One distinguishing feature of health insurance, especially social health insurance is that it is self-sustaining, and encourages sharing of risk and burden. The quantum 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 provision to the health insurance is accommodative of informal sector workers. Health insurance scheme has been found to contribute significantly to improved health care service, as it provides the required incentives for private commitment to the provision of high quality health care services and sustainable flow of funds.

A major characteristic of health insurance as is currently practiced in Nigeria is that it is privately provided and managed, and participation is highly skewed in favour of the elites. This may be due to the fact that the elites are quite knowledgeable about health insurance and its advantages because they have significant level of appreciation of the benefits of spreading health risks by pooling resources. The government of Nigeria has initiated social health insurance scheme as a viable health financing option in the country. The health insurance scheme, which had been in the pipeline for almost a decade was lunched in 1997, but eventually took off in July 2005 with initial limited participation by only the core civil servants at the federal level. In 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 un-pooled. 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. The overhead cost of running the health insurance scheme will now be distributed over a larger number of contributors and therefore bring down the amount/premium contributed. Not only is the financing prowess of the health insurance promising, it will also positively influence the quality of health care services from providers through the implementation of health quantity assurance schemes. The clause in the Nigerian NHIS that allows beneficiaries to freely choose provider, and change providers if not pleased with the health care services being

provided is one way of ensuring healthy competition among providers to capture market share and ensure quality enhancement.

SUMMARY AND CONCLUDING REMARKS

Analysis of the sources of financing health from the NHA estimates for Nigeria over the period 1998 to 2002 revealed that households accounted for the bulk of the total health expenditure in Nigeria. On the average, more than 64 per cent of the THE was borne by households. The government, which had over the years been erroneously believed to shoulder major share of the total health expenditure in the country, contributed less than 21 per cent. The relative amount of funds sourced through the three tiers of government in Nigeria appeared to be correlated with their share of the federation accounts. While the Federal Government contribution was on the average 12.4 per cent of the THE, the amount sourced through states and LGs were 6.2 per cent and two per cent, respectively. Donor funds have also been relatively significant, representing an average of 10.3 per cent. The least proportion is sourced through the firms which contributed barely five per cent, though this consistently grew over the period.

Analysis of the financing agents showed that the bulk of health funds sourced from donors and firms were injected into the system through NGOs and the health insurance, respectively. Thus, given limited health insurance arrangement, the role and share of health insurance and NGOs as financing agents have been minimal, while the OOP expenditure dominated, followed by government financing agents (health ministries of the Federal Government and states and health departments of LGs as well as other ministries and parastatals). While the health funds from the government agencies, OOP, and the NGOs were generally unstable, the contribution of the health insurance to health financing experienced appreciable and continuous increase. This is seen as an indication of the viability of pooled funds in financing health care in Nigeria relative to reliance on unpooled funds. The significant fluctuation of the general tax revenue of government and the unappreciable growth of per capita income further buttress

the unsustainable condition of the current health financing mix, dominated by government and households.

Social insurance financed by wage taxes has greater capacity to raise additional revenues. However, this is limited to the proportion of the labour force employed in the formal sector, and the degree of appreciation and enthusiasm accorded the scheme by those in the informal sector. This is because for those in the formal sector, their contributions are based on payroll tax, premium revenues are a function of the size and characteristics of the workforce as well as the level of workers' earnings. These will in turn depend on the labour absorption rate within the formal sector and the growth of the sector itself. For the voluntary aspect of the insurance scheme, the revenues will depend on informal labour force participation in the scheme, which in turn will be influenced by how well managed the programme turns out to be in the nearest future. With well organised and managed community health insurance financing arrangement, ability to mobilise significant amounts of new funds and improve efficiency and quality of health care is promising.

Without advocating for a total reliance on health insurance as a viable means of financing health care in Nigeria, it has been identified as a viable supplement and relief to the health financing burden being shouldered by households and government. Though, currently practiced on a small scale, the growth experience of the past is an indication of the potentials of pooled funds in enhancing health financing relative to unpooled funds. For the Nigerian health sector to have a positive turnaround in financing adequately and generate improved health status for her citizens, the current National Health Insurance Scheme must be effectively implemented to cover majority of, if not all Nigerians. The role of government should be to continue to provide the needed environment to support financing system through adequate and appropriate regulatory institution(s) as well as providing necessary contribution as an employer of labour. More of the resources being channelled through OOP spending by households will then be better managed when appropriately captured within the pooled

funds system. As higher proportions of Nigerian are covered under the NHIS, direct OOP spending will become limited to co-payments, limiting the health financial burden of household.

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