

Full Length Research Paper

Implications of households catastrophic out of pocket (OOP) healthcare spending in Nigeria

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Abstract

Ensuring sustained improvements in the living standard of the citizenry has led every government evolving development plans to facilitate effective mobilization, management and optimal use of financial resources. The healthcare sector is one of such sectors that requires sustainable investments for any economy to move towards high pedestal of living standard but when such is not happening, households will be forced to spend more in order to provide such services. Based on the foregoing argument, this study analysed the out of pocket healthcare spending of Nigerian households to determine if they are catastrophic. Using intensity and incidence methods, findings revealed that 24% of Nigerian households incur catastrophic health expenditure and this was more prevalent among the richest income quintiles in Nigeria and as such has succeeded in changing the poverty situation (pushing households below poverty line) of most households who were originally on or above the poverty line. The study recommended the need for expansion of social health insurance through the National Health Insurance Scheme to cover the informal sector as a means of increasing resources for healthcare services to ensure universal access and the provision of financial protection to the poor and vulnerable.

Keywords: Healthcare spending, catastrophic expenditure, households, out of pocket (OOP), Nigeria.

INTRODUCTION

Financing healthcare across the less developed and some developing countries is still characterized by the domination of out-of-pocket (OOP) expenses and the comparative lack of prepayment mechanisms like health insurance. This is because most households in such countries are without full health insurance coverage thereby facing the risk of incurring large medical expenditures whenever a member of the household falls ill. Important insights on economic consequences of health shocks have been provided by several studies across countries to reshape public policies around healthcare issues and concerns. Health policies are concerned not only with improving health status of population but also with protecting households from financial catastrophe of illness (Peters *et al.*, 2002). Nonetheless, a study by Gertler and Gruber (2002)

found that health shocks could have a major impact on consumption and could severely disrupt household welfare for more serious and chronic illnesses. Several other household level studies examining out-of-pocket (OOP) healthcare spending throw light on effect of poor health on economic wellbeing of household. The growing consensus that OOP spending in the healthcare sector has become a significant factor contributing to impoverishment of several households in developing countries including Nigeria is receiving government's attention.

In some Asian countries for example, major health sector reforms that was embarked led to healthcare provision being separated from financing thereby helping such countries in establishing a single purchaser in 1999 that contracted providers and introduced output-based payments as the principal form of provider compensation and reimbursement. Such reforms led to the elimination of up to 180,000 healthcare workers from the state payroll. In the light of limited public spending due to such reforms on health and a very narrow benefit package,

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private out-of-pocket (OOP) payments emerged as a major source of financing service provision.

According to Pal (2010), catastrophic OOP health expenditure is concerned with high levels of OOP health expenditure which might affect household's standard of living. From the literature, catastrophic expenditure has been defined as that level of OOP health spending which exceeds some fixed proportion of household income or household's ability to pay.

Investigating catastrophic OOP health spending in evaluating health system can be traced to the study by Berki (1986) and after such study different definitions of catastrophic OOP health expenditure have been provided in literature. The study by Berki (1986) opined that catastrophic OOP expenditure is one which constitutes large part of household budget and thus, affects household's capacity to uphold routine standard of living. The idea behind this approach is that consumption of other relevant items will be undermined if health care spending constitutes large portion in household budget. Russell (1996) based on this approach raised a concern with the composition of the opportunity cost of health care spending. In Nigeria, the issue of whether private healthcare spending has been catastrophic has been a debatable issue with different authors aligning to different schools of thought.

According to Ichoku (2011), healthcare financing in Nigeria has been characterized by the declining budgetary provisions since 1980 which has resulted to the proportion of total budget to health being less than 8% on average. There has been government health expenditure per capita at approximately \$2; average household health per capita expenditure of \$13; the total consolidated health expenditure per capita of less than \$34 average for the low income countries (LIC). The above identified factors coupled with the deregulation of healthcare financing and supply in Nigeria has shifted the healthcare system towards the competitive market ideals thereby ignoring the poverty and inequality reduction ideals which should be the guiding principle of a developing country like Nigeria.

According to WHO (2011), private healthcare spending (Private healthcare spending includes direct household (out-of-pocket) spending, private insurance, charitable donations, and direct service payments by private corporations.) as a percentage of Gross Domestic Product (GDP) in Nigeria increased from 2.91 in 2002 to 3.71 in 2009. Similarly, the value of consolidated public healthcare spending (Consolidated public healthcare spending consists of recurrent and capital spending from government (federal, state and local) budgets, external borrowings and grants (including donations from international agencies and nongovernmental organizations), and social (or compulsory) health insurance funds.) (% of total expenditure) in Nigeria was 37.89 as of 2010. Over the past 15 years this indicator reached a maximum value of 41.17 in 2008 and a minimum value of 20.76 in 1996.

Public spending here covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation. See figure 1 below for detailed private and consolidated public healthcare spending for the period 1995-2009.

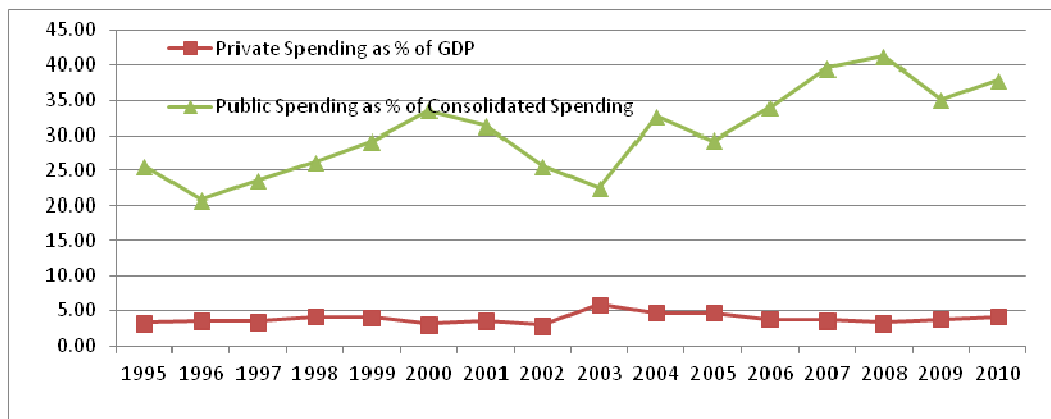
Also healthcare expenditure, total (Total health expenditure is the sum of public and private health expenditure. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation.) (% of GDP) in Nigeria was 5.07 as of 2010 with its highest value over the past 15 years being 7.55% in 2003 while its lowest value was 3.91 in 2002.

Due to the above situation, Nigeria has very poor population health as measured by several health indicators. Maternal mortality rate is estimated to be 800 per 100,000 live births and is currently one of the highest in the world. Infant and under-five mortality rates are estimated to be 100 and 201 per 1,000 live births respectively (Demographic and Health Survey 2003). There are vast regional inequalities in health outcomes across the country. Infant Mortality Rate (IMR) ranges from 121 and 125 per 1,000 live births in the Northeast and Northwest respectively to 66 and 69 in the Southeast and Southwest respectively and in general the prospects of achieving the Millennium Development Goals (MDGs) are slim but more promising in some than other states. NDHS 2003 shows that Under 5 mortality for illiterate mothers is 269 while it is 113 for mother with secondary education and just 80 for mothers with more than secondary education.

Exploring the growing literature on OOP have shown that the measurement of catastrophic health care payments appears to serve three main objectives such as identification of changes in the levels of well-being; assessment of the extent of poverty or low levels of living at the household level; as well as assessment of the performance of existing health insurance schemes. There has been several empirical evidence regarding to each of these issues, though there still exist dearth of an economic conceptual framework. In terms of the Nigerian situation given the above facts, it may be necessary to ask the question: Is there a positive association between a household's poverty shortfall and its health out-of-pocket budget share? This question is what this current paper is set to provide answer to. The rest of the paper is structured as follows: methodology that looks at method of data analysis; data and sources; presentation of results, findings and discussions and finally policy implications and conclusion.

MATERIALS AND METHODS

Two key variables fundamental to the estimation of



Source: World Health Organization (2011) Nigeria Health Account database

Figure 1. Private and Consolidated Public Healthcare Spending in Nigeria (1995-2010)

catastrophic health spending approach are total household out-of-pocket (OOP) payments for health care and a measure of household resources. Measuring the intensity and incidence of catastrophic payments has been defined as equivalent to those for poverty measurement. Estimating the fraction of a sample with health care costs as a share of total non-food expenditure that exceeded a chosen threshold lets say t yields the incidence of catastrophic payments. For us to estimate the OOP, let Z be the OOP payments for health care, x the total household expenditure, and $f(x)$ the food expenditure or nondiscretionary spending. Then, a household is said to have incurred catastrophic payments if Z/x , or $Z/[x-f(x)]$, exceeds a specified threshold, t .

The value of the threshold t (The value of t will depend on whether the denominator is total expenditure or nondiscretionary expenditure. Spending 10 percent of total expenditure on health care might be considered catastrophic, but 10 percent of nondiscretionary expenditure probably would not.) represents the point at which the absorption of household resources by spending on health care is considered to impose a severe disruption to living standards. Exploring the literature reveals that when total expenditure is used as the denominator, the most common threshold that has been used is 10 percent (Pradhan and Prescott 2002; Ranson 2002; Wagstaff and van Doorslaer 2003), with the underlying principle that this represents an approximate threshold at which the household is forced to sacrifice other basic needs, sell productive assets, incur debt, or become impoverished (Russell 2004).

Appraisal of the threshold t , will give rise to a fraction R of households with health budget shares that exceed the threshold t known as the catastrophic payment head count. Define an indicator, E_i , which equals 1 if $Z_i/x_i > t$ and zero otherwise give rise to estimate of the head count thus:

$$R = \frac{1}{N} \sum_{i=1}^N E_i \dots\dots\dots(1)$$

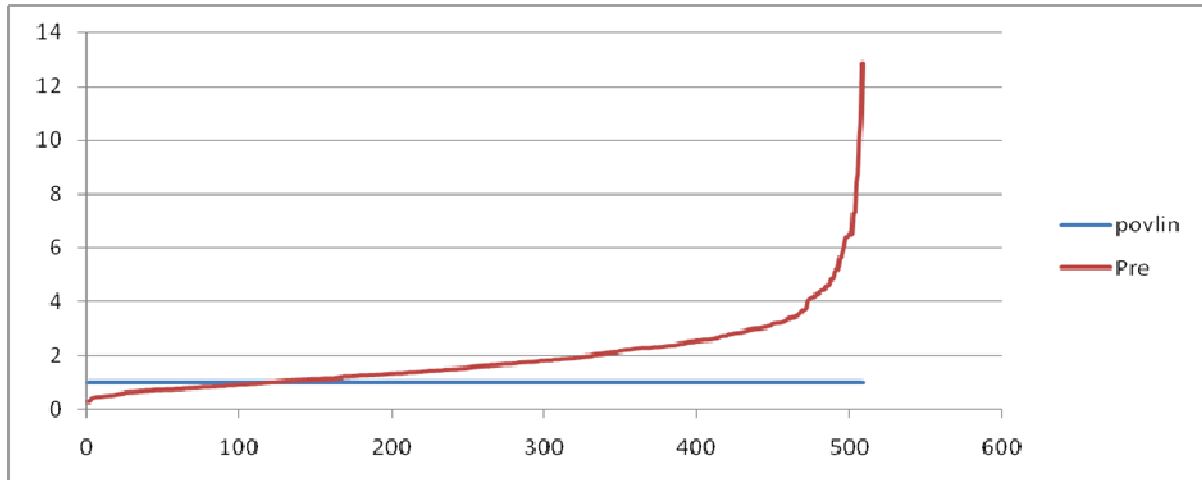
where N is the sample size.

Using the above, the study captured *households* private spending on health that is needed to obtain the service. This is because households must incur out-of-pocket expenditures to gain access to health care services even if they are subsidized government services (or ‘free’) and such spending extends beyond the cost-recovery contributions which were netted out in the unit subsidy. Demery (2000) suggested that there are two main reasons why this spending should be factored in. First, it provides a complete accounting of benefit incidence since experience has shown that households contribute substantially to service provision despite the large government subsidies involved, and that this contribution varies by income group. Also individuals in better-off households benefit from significantly higher spending than their poorer counterparts and these inequalities can dominate the incidence of the public subsidy. Second, the burden of these costs (especially to low-income households) can discourage the use of the services, and lead to poor targeting of the government subsidy.

The survey data for the study was primarily drawn from the Nigerian Living Standard Survey (NLSS) 2003/2004, a welfare monitoring survey collected by the National Bureau for Statistics (NBS) in collaboration with the European Union and the World Bank. The data contained about 19,158 households with complete information out of the 22,000 households in the sample. These households comprised of both rural and urban households. The data contained information on households’ total expenditure and households’ expenditure on education and healthcare.

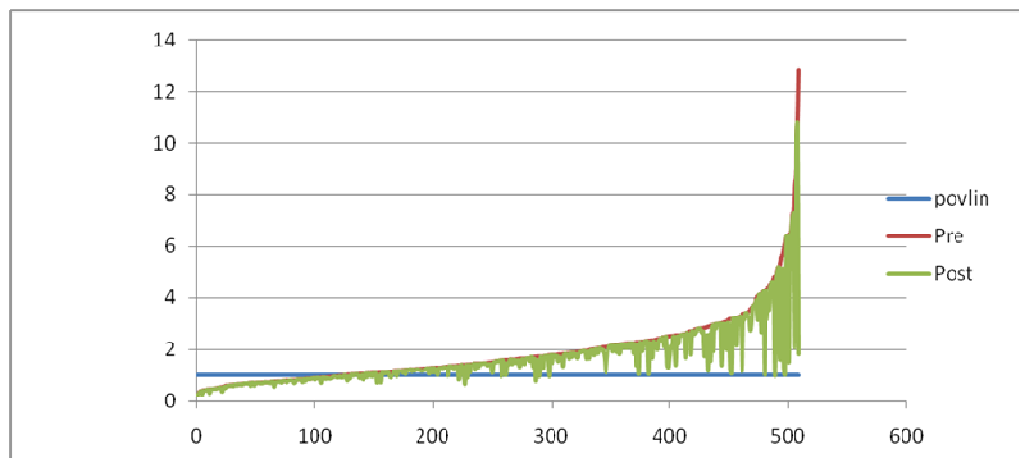
RESULTS AND FINDINGS

Analysis of the whether there is positive association between a household’s poverty shortfall and its health out-of-pocket budget share were done from two stand



Source: Authors'

Figure 2. Expenditure distribution and poverty line prior to out of Pocket



Source: Authors'

Figure 3. How Healthcare Out of Pocket (OOP) Impoverishes Nigerians

points. First from the expenditure distribution vis-à-vis the poverty line before out of pocket as presented in Figure 2 above. Second from the expenditure distribution vis-à-vis the poverty line after out of pocket as depicted in Figure 3.

Figure 3 above reveals a sharp pull downwards from different quintiles of the economy due to high out of pocket (OOP) healthcare expenditure. This is a telling indicator that though there may be some benefits accruing to these households, these benefits are still very low hence public expenditure in education and health in Nigeria is yet to be enough. A closer look at figure 3 also reveals that high out of pocket in healthcare has succeeded in changing the poverty situation (pushing households below poverty line) of most households who were originally on or above the poverty line including some of the households that were originally in the 4th and 5th quintiles.

A household is usually classified as having incurred catastrophic expenditure if it spends 40% or more of its discretionary (non-food) or 10% or more of its total expenditure on health care. Further analysis from the data reveals that 24% of Nigerian households incurred catastrophic health expenditure. About 17% of the households spent more than 15% of total annual expenditure on health care. Findings also suggest that catastrophic expenditure is more prevalent among the richest income quintiles in Nigeria.

DISCUSSION

Findings from the study though on the high may not be far from what is obtainable in some of the Sub Saharan African countries. In Uganda according to study by Xu (2003), there are 3.2% of households with catastrophic

expenditure with 2.2% of the households pushed into poverty because 15% households cannot afford the service when needed while another 23.4% households among the poor cannot afford the services.

Other reasons for high OOP healthcare spending as is the case for Nigeria according the study findings can be viewed from two ends. First, at system level where the availability of health services compounded with low capacity to pay, lack of prepayment or health insurance are leading to higher percentage of households with catastrophic expenditures. Second, is at the household level where socio-economic characteristics have some serious impact on catastrophic expenditure when the poor households are excluded from the system. With catastrophic healthcare spending, households are at higher risk and when that happens they become less healthy.

Private spending on healthcare in Nigeria comprises of out-of-pocket payments, user fees in public health facilities, and other private payments to healthcare providers for medicals and medicare and other forms of treatment. The maintenance of public health facilities, the regulatory function of government, and public health function of government all depend almost exclusively on all levels of government's budgetary provision for the health sector. Findings suggest a general problem of under-spending on the health sector in Nigeria hence such under-funding has always placed the country in a tight position towards meeting the international health financing benchmarks. To be able to attend their health needs, households have to pay for their health most times which increases the out-of-pocket. Over 70% of total health expenditure in Nigeria comes through out-of-pocket (about the highest in Africa) and OOP largely accounts for her rating 187/191.

POLICY IMPLICATIONS AND CONCLUSION

The implication of a very high level of OOP money is that a significant proportion of the poor may be driven into destitution after paying for health care. A severe ill health that afflicts the breadwinner of the family may completely impoverish the family especially those who sell their labour on daily basis to provide food for their families. Even the non poor may be impoverished by large random out-of-pocket payments arising from unanticipated ill health.

In order for Nigeria to move towards sustainable health spending that will lead to a sustainable health outcomes, there is the need for investments in the improvement of healthcare. If this is achieved, more and more people will escape from poverty and this can only be achieved through well-targeted government spending and subsidy to the sector. Roles of the government in the sector must be redefined and sharpened. Financial provisions shall be made for poor and vulnerable groups in the form of direct payments, subsidies, paying for

insurance contributions or any other methods. Similarly, there is the need for expansion of social health insurance through the National Health Insurance Scheme (NHIS) to cover the informal sector as a means of increasing resources for health thereby ensuring universal access to care and providing financial protection to the poor and vulnerable.

In other words, there is the need for a pragmatic and sustainable risk pooling mechanism; introduction of means to remove physical and financial barriers to access of healthcare services for the poor accompanied by financial protection policy; as well as the usage of socio-economic characteristics of households to provide evidence for policy focus.

Other strategies that could help the country include: increased Public-Private Partnership (PPP) looking at government partnership with private health care providers, traditional health providers and non-governmental health care providers. Government can also embark on contracting out health services in public health institutions to these groups and increased investment in rural health facilities. Finally, strengthening the regulatory and supervisory role of private organization, will lead to a more efficient use and reallocation of available resources.

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