Neoliberalism, public health, and malaria prevalence in Nigeria

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ABSTRACT

Neoliberal policies have been critiqued severally for their impacts on the economic development of countries that have adopted them. Not much is known about how these policies influence government spending on public health and the resultant effects on disease prevalence. This study thereforeanalyzes the pattern of government spending on healthcare in Nigeria to with a view to determining if it reflects the dictates of neoliberalism and if the prevalence pattern of diseases (using malaria as a case study) in the country has a relationship with, and can be explained with the spending pattern. Data on annual budgetary allocations to healthcare and clinically-diagnosed cases of malaria between 1985, when neoliberal policies were adopted in the country, and 2014 were reviewed and analyzed for trend using the Pearson Product Moment Correlation technique and employed as input data for a Regression analysis to determine the proportion of variance in malaria prevalence explained by the health expenditure. Health expenditure, with the recurrent component accounting for about 70% of the allocation, was an average of 3% of total budget in contrast to the 30% spent annually on administration. The funding pattern explained 12% of the variations in the prevalence of malaria in the study area ($R^2 = 0.118$) with capital expenditure on health being the more significant contributor. Allocation to health is very poor as dictated by the policy, yet increasing it, especially for capital projects, is crucial for controlling disease prevalence and for overall social development.

Key words: Health expenditure, malaria prevalence, neoliberalism, public health

INTRODUCTION

The decline of many developing countries into economic crisis in the late 1970s as a result of economic stagnation, declining per capita incomes, rising indebtedness, and fiscal insolvency, according to[1] prompted a reappraisal of the prevailing development theories and called into question the efficacy of traditional policies of development. The international financial institutions attributed these failures to the developing countries' unending romance with Keynesian policies of the welfare state, wasteful state sectors, inefficient industry policies, protectionist trade arrangements, expansionary fiscal regimes, and foreign aid,[2-4] and suggested development policies that embrace free-market solutions, privatization of state enterprises, and imposition of fiscal austerity.[5,6] The ideology behind these policies is neoliberalism.[7] Neoliberalism is a set of economic policies whose aim is to ensure economic efficiency by reducing government's participation in economic activities through trade liberalization, reduced protection of domestic industries, deregulation, currency devaluation, removal of subsidies such as food and fuel subsidies, right-sizing of the workforce, and reduction in public spending on social services such as education and health care while allowing for increased private sector participation.[7-12]

Neoliberalism has however not gone without a critique. This follows from the apparent impacts of its associated policies wherever they have been embraced. In Latin America, for example, about 200 million people or 46% of the population live in poverty. Between 1980 and 1994, real wages fell by 14% in Argentina, 21% in Uruguay, 53% in Venezuela, 68% in Ecuador, and 73% in Bolivia.[9] Neoliberalism was adopted in Latin America in the 1970s. The average annual growth rate of world gross domestic product declined from 4.9% between 1950 and 1973, to 3.0% between 1973 and 1992, and to 2.7% between 1990 and 2001 in spite of widespread neoliberal reforms.[9] In addition, studies have shown that on the average, globally, inflation has soared, poverty and unemployment have increased, underemployment and wage cuts have increased, and standards of living have declined.[7,8,13-18] Further, through privatization, opportunities have been created for accumulation and enrichment of a privileged few, thereby widening income inequality.[19,20] In Nigeria today, neoliberal policies are fully operational and are backed by appropriate legislations.[21,22] In 30 years of neoliberalism, more than half of the country's population live below the universally acceptable poverty line of $1 per day; inflation rate increased from 5.5% in 1985 to 72.7% in 1995 while unemployment rate, which was 7% in 1987 rose to 27.4% in 2013.[23-25] With widespread poverty, unemployment, increased costs of social services and consumer goods, and other economic constraints, there has been a decline in the population's levels of social well-being. Levels of social well-being, otherwise referred to as standards of living affect where people live, the kind of accommodation they live in, the quality

their living environment, their feeding pattern, and nutritional value of their diets, as well as their lifestyles. All these have been found to have implications for health and disease.[26-30] By fostering, unwittingly perhaps, conditions that expose and make the population increasingly susceptible to ill-health through her policies, the question then arises on how well the government has provided for the resultant health seeking needs of her population in view of the fact that reduced government spending is an integral of the government's neoliberal policies. This study, therefore, assesses the spending pattern of the government of Nigeria on health care since the introduction of neoliberal policies in the form of the Structural Adjustment Programme in 1986. This becomes particularly more necessary as most public healthcare facilities in the country are in deplorable conditions, bereft of basic facilities, short of personnel and "have become mere consulting clinics" (according to the Nigerian political elites who are renowned for traveling overseas for their health needs) due to lack of drugs to dispense. The shift to cost recovery in these facilities, as dictated by the reforms, has equally increased the costs of basic and supposedly free treatment as patients are made to pay for services consumed either in the form of registration (card) or laboratory tests fees. Further, the rapid population growth rate in the country, put at about 3.7% per annum by the Nigerian National Population Commission has not been matched with an increase in the number or expansion of existing facilities. It has been observed, for instance, that of the 27 local government-owned health institutions in Ibadan, Nigeria, only one was added after 1985.[31] This study further relates the spending trend to the prevalence of disease in the country, using malaria as a case study. Malaria is the most prevalent disease in Nigeria with 97% of the population at risk.[32] It also discusses the implications of the relationship on disease control.

METHODS

Data on budgetary allocations to health between 1985 and 2014 were extracted from various government publications such as the Central Bank of Nigeria (CBN) Annual Reports, CBN Economic Review and Quarterly Publications, Abstract of Statistics of the National Bureau of Statistics, annual budget estimates of the Federal Government, and from existing literature on subject. The datasets were compiled as total health expenditure (THE), capital expenditure on health (HCE), and recurrent expenditure on health (HRE). The breakdown into HCE and HRE was to enable a comparison of how much was spent on health infrastructure and how much went to overheads. In the absence of annual data on the national prevalence rates of malaria for 30-year period, the study employed the absolute number of clinically diagnosed cases of malaria in a federal health facility, the University College Hospital (UCH), Ibadan, as a corollary of the national trend. The UCH is the first and oldest tertiary public health facility in Nigeria and its knack for record keeping since its establishment makes it a major source of reliable data for the government's planning departments. It is also located in Ibadan, South-West Nigeria, where malaria mortality among children under the age of 5 is highest.[32]

The data on health expenditure were treated as proportions of total expenditure and analyzed for trend by comparing yearly data and using the Pearson Product Moment Correlation statistical technique. Data on the prevalence of malaria were equally

analyzed for trend using the same methods. A regression analysis was thereafter carried out to determine the influence of both the capital and HRE on the prevalence of malaria. The health expenditure data were the independent variable in the regression analysis while the number of clinically diagnosed cases of malaria between 1985 and 2014 was the dependent variable.

RESULTS AND DISCUSSION

Expenditure Trends

For 26 of the 30 years reviewed, total expenditure on health in the annual budget of Nigeria was <5% of the total budget. On the average, it stood at 2.97% per annum with 1992 having the poorest allocation of 0.36% and the highest being 6.06% in 2014. For 16 years, 15 of which were successive between 1985 and 1999, the allocations were less than the period average. Between 2000 and 2009 years, the allocation oscillated between 3.11% and 5.23%, it dropped to 2.74% in 2010 and was not <5.12% between 2011 and 2014. While the allocation to health appeared incremental, about 3% share of total budget still points at a deliberate policy of reduced involvement in public health. The picture is clearer when the allocation to health is compared with allocations for general administration. Between 1985 and 2014, administration commands about 30% of annual budget, thereby leaving health, education, agriculture, transport, communication, construction, debt servicing, and other sectors germane to social and economic development to grapple with the balance of 70%.

When the health expenditure is disaggregated into its capital and recurrent component, the average capital expenditure as a proportion of total budgetary allocations was 0.81% while for recurrent, it was 2.17%. In 22 years, capital allocation was <1%, <0.5% actually in 10 of the 22 years. The highest capital allocations to health were in 2001 (1.98%), 2013 (1.91%), and 2004 (1.85%). The highest recurrent allocations were in 2014 (4.97%), 2011 (4.92%), and 2012 (4.30%) while the lowest was recorded between 1985 and 1998. It is evident that more money (nearly 3 times more) was allocated to the payment of salaries and other running expenses than to expansion of facilities, drugs procurement, and even the establishment of new facilities. An analysis of the pattern indicates that over the successive years, both the total expenditure on health and its recurrent component witnessed higher increments ($R^2 = 0.75$ and $R^2 = 0.73$, respectively) than the capital expenditure component ($R^2 = 0.26$). The yearly distribution of the allocations and the trend equations for the THE and its recurrent (HRE) and capital (HCE) components are illustrated in Figure 1.

Malaria Prevalence

From the analysis of the clinically diagnosed cases of malaria between 1985 and 2014 at the UCH, Ibadan, an average of 2166 malaria cases was recorded annually. Using both the population size and number of hospitals in the city to derive a hospital catchment population of 7360 people[33] is translated to an average of 294 malaria cases per 1000 population or 29.4% prevalence rate. In 21 of the 30 years, the number of cases was less than the period average with the lowest incidence (1036 cases) being in 1993. Other years with relatively fewer numbers of cases, below 2000, were 1986, 1989, 1990, 1992, 1996, 1998, 2004, 2008, 2009, 2012, and 2013. The highest number of cases (3671) was recorded in the year 2000 while years 1994 and 2006 also

recorded number of cases in excess of 3000. The trend suggests that the incidence of malaria in the study area has been fluctuating markedly over time. The high and low however seem to cancel out each other as the correlation between the number of cases and years indicates a low, although positive correlation ($r = 0.14$). This also implies that cases of malaria have been increasing, albeit marginally, over the years. The trend is illustrated in Figure 2.

Health Expenditure and Malaria Relationship

The regression analysis between health expenditure and disease prevalence indicates that for the period under review, government spending on health accounted for 11.8% of the variations in disease prevalence ($R^2 = 0.118$, $P = 0.184$). Although the coefficient of determination is not statistically significant, predicting as high as 11.8% of the total variation in malaria prevalence in the face of other socioeconomic and environmental determinants of health is significant enough to command attention as one way of addressing disease prevention and control in the country. The regression model was tested for multicollinearity using the variance inflation factor and tolerance coefficient. In both cases, the values were >0.5; multicollinearity is suspected where the values are <0.5. For their individual contributions, capital expenditure was more highly correlated to malaria prevalence ($r = 0.256$) than recurrent expenditure ($r = 0.169$). What this clearly indicates is that funds for increasing the number of hospitals, expansion, and upgrading of facilities and equipment within the existing hospitals, and procurement of drugs play more important roles in disease prevalence and control than funds for salaries and other running costs. Building new hospitals, rehabilitating deplorable existing ones, and procuring new and upgrading existing equipment increase the population's access to health care, and this has been found to affect health seeking[34,35] and disease prevalence.[36-38] Recurrent spending is also important as not only does it increase the capacity of the personnel to fend for their households, disposable income from the payments but also trickles back into the economy contributing to the national per capita income which oscillated between $204 and $390 between 1986 and 2012. It was $950 in 1985[39] at the outset of neoliberal policies. Canada has a per capita income of about $52,000. Health personnel also offer health education which is relevant for disease prevention and control.

CONCLUSION

This paper has shown that budgetary allocation to health in Nigeria is still very low in spite of the fact that it has witnessed a slight increase over the years. The recurrent component of the allocation has also been shown to be nearly 3 times the allocation for capital expenditure in the 30-year period reviewed. For their capacity to influence the prevalence of malaria by almost 12%, it is suggested that more funds should be allocated to health care in Nigeria, particularly in building more hospitals and expanding the capacities of the existing facilities. While it is also important to staff the health facilities adequately, determining an optimum number of personnel per facility, and redistributing existing personnel to address the spatial inequality in the existing distribution as found out in other studies,[33,40,41] is also recommended to address the yearly marked variations in the high allocations to recurrent spending on health. Apart from ensuring that the monies spent on personnel are capped (with very negligible yearly increases for new recruits), it will ensure that more money allocated to health goes for capital projects which have more impacts in controlling and preventing diseases. The government is also advised to review its economic policies to improve the quality of lives in the country.

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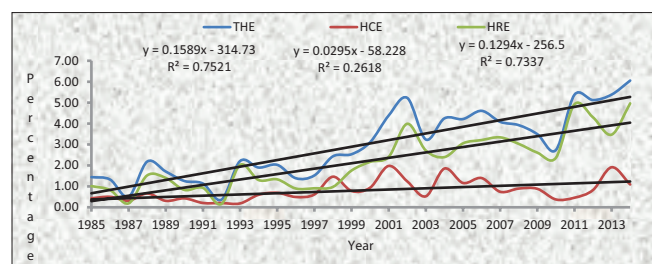
Figure 1: Budgetary allocations to health in Nigeria 1985–2014. Source: Author's computation, 2015
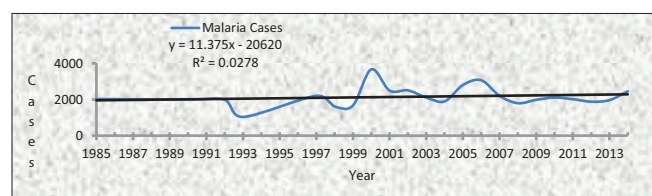
Figure 2: Trend of malaria prevalence in Ibadan 1985–2014. Source: Author's analysis, 2015

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