Determinants of Government Health Expenditure in Nigeria (1980-2018)

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Abstract
Investment in the health sector will enhances productivity of workers physically and mentally which will bring about a higher contribution to the economic growth and development of the country. The Nigerian government over the years has allocated a huge amount of money to the health sector but the huge amount of money fails to address the problem in the sector. However, the paper examines the determinants of Government health expenditure in Nigeria between 1980 and 2018. The objective of the paper is to examine the variables that determine government health expenditure in Nigeria. The paper adopt Johansen Co-integration analysis and parsimonious error correction model as the estimation techniques and the results shows that there is long-run relationship between total Government health expenditure and all the explanatory variables. Therefore, the paper recommends that Government budgetary allocation to the health sector should be increased to 15% of the government's annual budgetary allocation to the health sector and that Primary health care services which is the closest to the people should be given priority in other to give the common man an affordable healthcare facility. Finally, the paper concludes that the determinants of government health expenditure in Nigeria are total population above 65years, Tuberculosis, sickle-cell Anemia, HIV-AIDS, Malaria, High Blood pressure and Diabetes.
Keywords: Government Health Expenditure, Tuberculosis, Sickle-cell Anemia, Nigerian Economy

1.0. Introduction

In the Public sector, there are three tiers of health services namely, the primary, secondary and tertiary. The primary health services is the closest to the people and it is the constitutional responsibility of local Government to take care of the primary health services while the state ministries of health are responsible for the secondary health services in Nigeria. However, the tertiary health services deals with the most difficult/complicated/specialist cases that are referred from secondary health systems to the teaching hospitals and they are supervise by the federal ministry of health (FMOH). The Federal Ministry of Health are also given the mandate to develop policies, strategies and plans that provide direction for national health care delivery in Nigeria. (Federal Ministry of Health, 2009)

According to Ehikioya and Mohammed (2013), there is increasing empirical evidence that health matters for economic growth and development. Literature on economic growth has clearly showed the role of health in influencing economic

performance, at least at the micro level. It is suggested that, all things being equals, healthier workers are more likely to be able to work longer, be generally more productive than their relatively less healthy counterparts, thus able to secure higher earnings than diseases ridden workers. Babatunde (2012) posited that poor health infrastructure, illness and diseased shorting the working lives of people thereby reducing their life time earnings.

Schultz (1999) postulated that good health has positive impact on the learning ability of children which lead to better educational outcome, school completion rate, higher means of years schooling, achievement and increases the efficiency of human capital formation by individuals and households. Lawanson (2009) asserted that health is one of the major components of human capital formation. While Todaro (2009) reveals that human resources constitute the ultimate basic for the wealth of a nations, capital and natural resources are passive factors of production, human beings are the active agents who accumulate capital, exploit natural resources, build social economic and political organization and carry forwards national development.

According Olowolagba (1999), the pattern of the Nigerian government health expenditure has experienced a great deal of fluctuations. From 1980 to 1985, the average growth rate of government total health expenditure was estimated at 1.2 percent. With expenditure at 852.5 million Naira in 1980, it dropped significantly to 488.2 million Naira in 1982 and stayed on the decline through 1984 at 128.27 million (1984 recorded the lowest expenditure). Expenditures picked up again in 1986 at 296.2 million Naira but experienced an upward and downward trend through 1994 where its annual growth rate was 55.9 percent in nominal terms.

A steady rise existed from 1995 – 1998. An annual increase of 16.34 percent was recorded between 1999 and 2002. The annual growth rate pattern reflects an unstable trend. From a nominal growth rate of 27.6 percent in 1999 government's total health expenditures increased by 37.44 percent in 2000, however the rate dropped by 11.58 percent in the succeeding year, though the 2004 and 2005 budget indicates a proportional increase in health expenditure, in real terms, health expenditures have been on the decline (World Bank, 2005).

According to the Federal Ministry of Health (2009), the total health expenditure increased from N1, 163,009 million in 2006, N1, 295361million in 2007, N1, 525,982million in 2008 and N1, 679,439million in 2009 and this account for 44.4% increase within the period of 2006 and 2009. This stood at 6.16 percent, 6.29 percent, 6.27 percent and 6.76 percent of Gross Domestic Product (GDP), in 2006, 2007, 2008, and 2009 respectively. As a percent of the total Government expenditure, public expenditure on health stood at 6.28%, 5.69%, 5.41% and 5.18% in 2006, 2007, 2008 and 2009 respectively. The interpretation of this is that government still needs to increase the allocation to the health sector as it committed in the Abuja declaration to allocate 15% of the total government spending to health. In 2010 the budget to health sector was N49.99billion, in 2011 it was N33.53billion, in 2012, it was N57.01billion and in 2013 it was N60.08billion respectively.

Moreso, the total national budget stood at N4695.19billion in 2014, N5067.90billion in 2015, N6060.48billion in 2016, N7441.18billion in 2017 and N9120.33billion in 2018. This shows that there was an increase in health budget but it has not really improved the sector due to long neglect of the sector for a long time.

Bakare and Sanmi (2011) that in spite of all these increases, much impact has not been made in the area of reduction of infants, under five and maternal mortalities since 1970.

For instance, the Nigerian rate of infant mortality (91, per 1000 live births) is among the highest in the world, and the immunization coverage has dropped below thirty percent while mortality rate for children under age five is 192 death per one thousand by year 2007, it was also reported that more than one hundred and thirty-four thousand (134000) women died from pregnancy complications. In addition, the life expectancy ratio on the average has been on the decline over the study period and the World Bank 1999 ranked Nigerian 74th out of 115 countries based on the performance of some selected health indicators while the general health system performance was also ranked 187th among the 191 member states by the World Health Organization.

The national health policy states that the government has the responsibility to provide health care for its citizenry and this will be met through the provision of access to health care services. The health policy therefore mandates the government to ensure that its citizenry operate health services and to provide the necessary commodities to ensure that they can practice such choices, thereby improving the standard of living within the country (Federal Ministry of Health, 2003). But when the budgetary allocations to the health sector and the amount needed to adequately provide this essential commodity are compared, it is clear that Nigeria may not be able to meet this need from its health budgets. As such, it becomes necessary to identify those factors that account for the trend in government health expenditure over time specifically from 1980-2018 to ascertain the extent to which these factors determine the level of government resource allocation to various health challenges.

2.0   Literature Review
2.1   Conceptual Framework
2.1.1   Concept of Government Health Expenditure

Government health and human rights are complementary approaches to promoting and protecting human dignity and wellbeing (Aniekwu, 2006). There is a link between macroeconomics and health status. A very important component of economic development of a country is its people's state of health. In fact, there is the argument as to whether it is health that causes development or economic development causes health improvements. Nurudeen and Usman (2010) argue that rising government expenditure on health results in an increase in economic growth. They among others, suggest that government should raise its expenditure in the development of the health sector since it enhances productivity and economic growth.

In the same vein, Berger and Messer (2002) conclude that health as a form of capital, such that health care is both a consumption good that yields direct satisfaction and an investment good that yields indirect utility through increased productivity, fewer sick days and higher wages. In the literature, while some authors (Abu & Abdullahi, 2010) established a negative relationship between increased government expenditure and economic growth.

According to WHO (2010), Government health expenditure consists of recurrent and capital spending from government budgets, external borrowings and grants (including donations from international agencies and NGOs), as well as compulsory health insurance funds. History is a witness that important breakthroughs in public health, disease control and improved nutritional intakes have given rise to great takeoffs in economic development. Rapid growth of Britain during the industrial revolution, rapid growth of

Japan in the 20ᵗʰ century, Europe and East Asia in the 1950s and 1960s were as a result of improvement in health status (Sein & Dalpatadu, 2015).

2.1.2   Concept of Economic Growth

The concept of economic growth as an increase in the per-capital income of an individual in the economy. The economy of a nation is considered to have grown when the nation's capital dividend by the total population of such a country increases sustainability (Akintoye & Olowulajo, 2008). It may not be wise to consider a nation's economy as increasing when there are fluctuation in the per capital income of such a nation within a short period of time. The economic growth of an economy may be considered using the Gross Domestic Product (GDP) of the economy. If the GDP of an economy increases, the country's economic growth is considered increased. Also, if there are an increase in the aggregate goods and services per person in an economy for a reasonable period of time say 5 years and above there are elements of economic growth. Anyawoncha (1993) assert that a nation's economic growth can be measured in terms of its per capital income and the nation's total goods and services within a given period of time.

Economic growth is the process by which national income or output is increased. An economy is said to be growing if there is a sustained increase in the actual output of goods and services per head. The rate of economic growth, therefore measures the percentage increase in real national output, during a given period of time, usually a year, over the preceding year's level Anyanwoncha (1993). Jhingan (2002) defines economic growth as a process whereby the real per capita income of a country increases over a long period of time. According to him, economic growth is measured by the increase in the amount of goods and services produced in a country. Economic growth occurs when an economy's productive capacity increases which, in turn, is used to produce more goods and services. A nation's economic growth can be measured in terms of its national income and the real per capital income. Economic growth is a very important goal of macro-economic policy because of the role it plays in economic development (Jelilov, 2016).

2.2   Theoretical Framework
2.2.1   Twin Model of Health Expenditure

Kee (2009) using provinces in Canadian economy developed what he called a twin model of health expenditure. One was based on homogeneity of slope of the model while the other was based on heterogeneity of the slope. Before introducing the models, Kee identified some selected factors in the analysis of provincial health expenditures. According to him, the early studies on the determinants of health expenditures concluded that income is the major explanatory factor of health economics. The economic approach argues that other things being equal, the amount of health expenditure should depend on what an individual is capable of spending.

Therefore, it is expected that states with higher income should be able to spend more on health given other decision factors such as the price of healthcare expenditure. Kee (2009) opined that spending decisions concerning health are not solely affected by the income level but also by the price of health care. In the case of higher out of pocket payments, decisions rely on the price level. He also asserted that the share of publicly funded health expenditure with few countries being in exception, healthcare decisions and a considerable volume of health spending are driven by the governments and public institutions.

However, as Roberts (2013) pointed out, expenditure on physicians and other medical personnel constitute the bulk of government spending on health. The share of senior population: is considered to be another explanatory factor of health expenditures by the simple fact that elderly population consume healthcare is an increasing function of age (George, 2018), especially for those of age 65 (regarded as the lower bound of ageing) and over higher and prolonged periods of cost are involved. Further, the treatment of senior population involves complexity and is not fully realized in most of the cases. Diabetes, cardiovascular diseases are few to mention that require relatively technical knowledge and equipment for treatment and diagnosis. The delivery of health services to elderly population is therefore associated with higher spending on health.

2.3   Empirical Review

Hitris and Posnett (2016) analyzed the determinants of health expenditure using a sample 560 panels observations for 20 OECD countries. While the result support that GDP is the most important determinant, they also concluded that non-income variables are important but their effects on health expenditure are small.

Moore, Danel and Raner (2016) specified a model for cross-country examination where per capita health expenditure is a function of per capita income, per capita number of physicians, nurses and beds, and the ratio of public expenditure to total health care expenditures. The results indicated that health is a necessity in the short-run while a luxury in the long run.

Memunat (2016) also did a study on impact of government health expenditure on Nigerian Economy for the period of 1970 and 2016. The study make use of multiple regression analysis of ordinary least square methods and the study concludes that there exists a negative relationship between gross domestic product and health expenditure in Nigeria. She concluded that health care expenditure is a normal good. Hansen and King (2016) noted the price variable represents the choices faced by policy makers or the society as a whole, between competing uses of resources. In conclusion, he indicated that total health expenditure in Nigeria is determined by the combination of health stock variables and economic demographic variables.

The impact of ageing on government expenditures has been a major concern for both governments and academic writers. Severe consequences were expected for the health sector, when population again was argued to the cause of rise in government expenditure up to mid-1980s (OECD, 1988). Recent analyses on country specific micro data on health care expenditure data indicates expenditure on health care are concentrated on the last few months of life. An analysis of micro data for a sample of Swiss individuals in the last few months of life during the period 1983 – 1992, Zweifel, Dewin and Welison (2017) shows that the amount of health care expenditure depends on population over 65 years old. From the analysis, Zweifel et al, infer that the positive relationship between age and healthcare expenditure that can be observed in a cross – country data may be caused by the fact that at age 80, for example, there are many more individuals living in their last 2 years than at age 65 the impact of ageing will thus be to push the high level of health care expenditure to later in individuals' lives rather than to increase per capita expenditure.

According to Bricks (2018), there is increasing empirical evidence that health is important for economic growth and development. Literature on economic growth has clearly showed the role of health in influencing economic performance, at least at the micro level. It is suggested that, all things being equal, healthier workers are more likely to

be able to work longer, be generally more productive than their relatively less healthy counterparts, thus able to secure higher earnings than diseases ridden workers.

Johnson (2018) did a study on the impact of health care Expenditure on Economic Growth in Nigeria between 1980 and 2018. He make use of Johansen Co-integration, Error correction model and Granger causality test as the estimation techniques and the result shows that health care expenditure in Nigeria has not really causes growth in Nigeria and that there is no long-run relationship between heath care expenditure and economic growth in Nigeria.

Oluwalagba (2018) examine the determinants of health expenditure on Economic growth in Nigeria between 1980 and 2018. Quarterly data was used to analyse the data and VECM analysis was used as the estimation technique and the results shows that health expenditure has not contributed to growth of Nigeria economy during the period of analysis.

Okunade and Karakus (2018) employed individual Augmented Dickey Fuller (ADF) and IPS panel unit root tests, Engle-Granger and Johansen co integration analysis for real capita health expenditures, real per capita GDP and relative price of healthcare in 19 OECD countries between 1960 and 1977. They estimated a GDP elasticity of health expenditure above one. A case study for the U.K revealed that health is a luxury good with income elasticity of 1.43 and the responsiveness of the U.K health spending to changes in the relative prices was found to be highly elastic.

3.0   Methodology
3.1   Model Specification

Base on the literature review this paper make use of Hiatiris (2016); Anyanwu (2014). The paper try to introduce some variables such as Diabetes and high blood pressure into the model and the reason is that only few literature has really make use of these important variables. The justification of introducing the variables is that majority of Nigerian that are forty (40) years and above deals with the management of diabetes or high blood pressure or both and which invariably need to be taking care of by the government from the primary health care services to the secondary and tertiary level.

Therefore, we will derive a model to investigate the determinants of Government health expenditure in Nigeria and the model is stated below;

$$TGHE = F(GDP, POPL, TBCS, SCAN, HIV - AIDS, MAL, HIHPB, DIBT, Ut)..(1)$$

The model then becomes:

$$TGHE = \beta o + \beta 1GDP + \beta 2POPL + \beta 3TBCS + \beta 4SCAN + \beta 5HIV - AIDS + \beta 6MAL + \beta 7HIHPB + \beta 8DIBT + Ut……………………(2)$$

Then take the log of both sides

$$LN\ TGHE = \beta o + LN\beta 1GDP + LN\beta 2POPL + LN\beta 3TBCS + LN\beta 4SCAN + LN\beta 5HIV - AIDS + LN\beta 6MAL + LN\beta 7HIHPB + LN\beta 8DIBT + Ut ………………………………………………….(3)$$

Where:

$TGHE = Total\ Government\ Health\ Expenditure$; $GDP = Gross\ Domestic\ Product$; $POPL = Population\ above\ 65 years$; $TBCS = Tuberculosis$; $SCAN = Sickle - Cell\ Anemia$; $HIV - AIDS = Human\ Immunodeficiency\ Virus - Acquired\ immunodeficiency\ Syndrome$; $MAL = Malaria$; $HIHPB = High\ Blood\ Pressure$; $DIBT = Diabetes$ and $Ut = Error\ term$

However, the source of data for the paper is from central bank statistical bulletin, national bureau of statistics, Federal Ministry of Health in Nigeria and world development indicator.

4.0   Result and Analysis
4.1   Unit Root Test Result
        Let us start our analysis of result with the unit root tests. Unit root test are tests for stationarity in a time series. A time series has stationarity if a shift in time does not cause a change in the shape of the distribution. These tests are known for having low statistical power. Many tests exist, in part, because none stand out as having the most power. However, the convention method of Augmented Dickey Fuller (ADF) test was employed in this study.

Table 1: Test for Stationary

Variables	At Level	1st Difference	Order of integration
LNTGHE	-0.411	-4.723	I(1)
LNGDP	-2.418	-7.185	I(1)
LN POPL	-1.518	-6.429	I(1)
LNTBCS	-1.654	-4.831	I(1)
LNSCAN	-1.459	-6.843	I(1)
LNHIV-AIDS	-0.269	-7.314	I(1)
LNMAL	-2.299	-5.592	I(1)
LNHIHPB	-1.531	-4.772	I(1)
LNDIBT	-1.438	-5.061	I(1)

Source: Author's Computation

        The result shows that the Total Government health expenditure, Gross domestic product, Population above 65years, tuberculosis, Sickle-Cell, HIV-AIDS, Malaria, High Blood Pressure and Diabetes are all stationary at first difference that is the variables are all I(1) series. However, the ADF tests are run against the null hypothesis there is unit root I(1) non-stationarity of the series. Using the critical value of ADF at 5% level of significance which is 2.991 for 38 sample size, the absolute value of ADF less than the critical value indicates a rejection of the null hypothesis. This shows that the levels of variables, the absolute value of the ADF Statistics are greater than the critical values of the ADF at 5% level of significance.

4.2   Johansen's Co-Integration Test Result
        Based on our unit root test, all the variables are stationary at first difference I(1) series, we then proceed to test for co-integration among these variables by using Johansen co-integration test which called the reduced rank procedure developed by Johansen and Juselius (1990). This test depicts the existence of long-run equilibrium to which an

economic system converges over time. This implies that if two or more time series are expressed to form an equilibrium relationship over the long-run, such as equation (1), even when the series are non-stationary, they will nevertheless move closely together over time such that the difference between them will be stable (stationary).

Furthermore, co-integration technique allows for the estimation of a long-run equilibrium relationship. Simply put, one can argue that various non-stationarity time series are co-integrated when they are linear combination are stationary. Stationary derivations from the long run are allowed in the short run. Economically speaking two variables can only be co-integrated if they have long-term or equilibrium relationship between them.

Table 2: Johansen Co-Integration Test

Series	Eigen Value	Likelihood Ratio	5 Percent Critical Value	1 Percent Critical Value	Hypothesized No of CE(S)
LNTGHE	0.784215	122.6481	112.31	127.67	None**
LNGDP	0.952053	120.4137	88.19	101.27	At most 1
LNPOPL	0.726141	115.1821	79.31	82.11	At most 2
LNTBC	0.643399	68.6412	52.44	64.28	At most 2
LNSCAN	0.585392	45.8291	33.11	48.51	At most 3
LNHIV-AIDS	0.428172	31.5284	24.33	37.92	At most 3
LNMAL	0.371295	14.8954	21.41	31.43	At most 4
LNHIHPB	0.189537	8.5369	14.35	22.71	At most 5
LNDIBT	0.007461	0.37821	6.94	11.52	At most 6

*(**) denotes rejection of the null hypothesis at the 5% (1%) level respectively
L.R test indicates 2 co-integrating equation(s) at 5%
Source: Author's Computation

From table 2, there exist two (2) co-integration equation at 5% level of significance and this is because the likelihood ratio is greater than the critical value at 5%. We can then concludes that there is long run relationship between total government health expenditure, Gross domestic product, population above 65years, tuberculosis, sickle-cell anemia, HIV-AIDS, malaria, high blood pressure and Diabetes.

Table 3: Parsimonious Error Correction Model

Variable	Coefficient	Std Error	T Statistics	Prob.
C	0.856218	0.927615	0.923032	0.154
GDP	-2.734175	0.997482	2.741077	0.162
POPL	1.758241	0.978461	1.796945	0.000
TBCS	1.522876	0.978618	1.556399	0.000
SCAN	1.722410	0.996387	1.728656	0.000
HIV-AIDS	-1.884762	0.472981	3.984858	0.183
MAL	0.693588	0.633145	1.095465	0.000
HIHPB	1.423610	0.759148	1.875273	0.000

DIBT	1.317109	0.733841	1.794815	0.000
ECM (-1)	-0.441582	0.947581	-0.466009	0.001
R-squared	0.864821	F test	15.472671	
DW stat	2.247186			

Source: Author's Computation

In the result, there exists a negative relationship between total Government health expenditure and Gross Domestic Product in Nigeria. This implies that an increase in Gross domestic product will lead to -27.34% decreases in total Government health expenditure. The coefficient value is not significant at 5% significance level. We can conclude that the elasticity of less than one of the variable indicates that healthcare expenditure in Nigeria is a normal good. If we critically look at the value of the coefficient, we can conclude that there is high inequality in income in Nigeria and it is not equitably distributed. Therefore, we can simply say that the Nigerian government has not been taking healthcare system very seriously. These findings are consistent with Memunat (2016), who concluded that healthcare expenditure is a normal good and it is unlike the study done by Anyanwu (1998) who noted that health care expenditure is a luxury good. The discrepancy in findings may be attributed to various health policies put in place by government to enhance the growth and development of the health sector.

From the results, the parameter total population above 65years has positive and significant effect on total government health care expenditure. This shows that an increase in population above 65years will leads to 17.58 per cent increase in total government health expenditure. The coefficient of the parameter total Population above 65years is also significant at 5% significance level. The implication of this result is that proportionate increase in the total population above 65 years will lead to increase demand for old people medical need in the country.

Tuberculosis has a positive sign and is significant at 5% significance level. The value of the coefficient is 1.522876. This implies that an increase in tuberculosis will leads to 15.22 percent increase in total government expenditure. The positive sign and the significance level is attributed to the fact that more people are living with tuberculosis in Nigeria as at the period of analysis. The results also indicate that tuberculosis leads to increase in provision of public sector demand for healthcare facilities in Nigeria. The positive value of the coefficient can also be said to indicate increase in budgetary allocation to the health sector in Nigeria, which will invariably lead to a quick and better response to deadly diseases in Nigeria such as tuberculosis.

The coefficient of Sickle-cell Anemia is 1.722410. This implies that an increase in Sickle-cell Anemia will lead to 17.22 percent increase in total government expenditure in Nigeria. This variable was found to be statistically significant at 5% percent level of significant. The positive nature of Sickle-cell Anemia indicates that cost of healthcare does not discourage Nigerians for the demand of health resources.

The coefficient of HIV-AIDS is -1.884762. This means that a one percent increase in HIV-AIDS will lead to 18.84 percent decrease in total Government health expenditure in Nigeria and the variable was found to statistically significant at 5% level of significance. The coefficient of malaria is 0.693588. This implies that an increase in malaria will lead to 6.93 percent increase in government health expenditure in Nigeria and the parameter malaria was found to be statically significant at 5% level of significance.

Furthermore, the coefficient of high blood pressure is 1.42361. This implies that an in high blood pressure will lead to 14.23 percent increase in total government health expenditure in Nigeria and the parameter high blood pressure was found to be statistically significant at 5% level of significance. The coefficient of parameter diabetes is 1.317109. From the result, it means an increase in diabetes patient will lead to 13.17 percent increase in total government health expenditure in Nigeria.

The F-statistic which measure the overall statistical significant of the model and it was found to be statistically significant at 5 percent significance level. The F-statistic value of 15.472671 shows that the explanatory variables are important determinants of Nigeria's total government health expenditure. The value of Durbin Watson (DW) statistic is 2.247186 for the model. This implies that there are absences of auto-correction among the explanatory variables in the model.

In addition, the parsimonious model is −0.441582 and it shows that the coefficient of the error correction term (ECM) is negative and significant with a very low probability value of 0.001. The value in absolute term is 0.441582 indicating that about 44% of the disequilibrium in the total government health expenditure in the previous year is corrected in the period and this also appears to be significant showing that the dependent and independent variables go a long way in explaining total government health expenditure in Nigeria during the period of study.

5.0   Conclusion and Recommendations

The paper x-rays the determinants of public health expenditure in Nigeria between 1980 and 2018. The paper was conducted to identify those variables that can influence or determine Government health expenditure in Nigeria. In other to achieve the objective of the paper, an econometric model was specified, and a regression analysis was carried out on the model. The result from the paper shows that total population above 65years, Tuberculosis and sickle-cell Anemia, HIV-AIDS, Malaria, High Blood pressure and Diabetes are the major determinants of government expenditure in Nigeria. Finally, Primary health care services which are the closest to the people should be given priority in other to give the common man an affordable healthcare facility. However, based on the findings of this paper, the following policy recommendations are put forward:

Government budgetary allocation to the health sector in Nigeria is the way out of improving and bringing out the best in our health facilities. The Government budgetary allocation to the health sector should be increased to 15% of the government's annual budgetary allocation to the health sector.

Moreover, there is also the need for investment in the health sector which invariably will improve educational outcome and boost economic growth in the country. However, it is very important that Government should improve its health policies that will give a good backup for provision of health facilities in the country. Government should take note of population growth in the country and high rate of terminal diseases as well as provision of employment.

Furthermore, there should be a good Government-Private partnership in providing quality and good health system to meet the demands of the over two hundred million Nigerians. The national health insurance scheme (NHIS) should be given more attention by taking care of the citizen total expenses on treatment, drugs and other medical expenses. This will definitely improve the health system and reduce the out of pocket expenses of households on hospital bills.

Finally, corruption in the health sector should be addressed by the government, so that those who are involved in the shady practices would be brought to book. With strict monitoring of diversions of funds in the health system in Nigeria, our primary, secondary and tertiary health facilities will received huge amount of finance to function as they ought to and enhanced the Nation's economic growth and development.

References

Abu, K. & Abdullahi, K. (2010). Uncertainty and the welfare economics of medical care. *American Journal,* (9), 46-61.

Anyanwu, J.C. (2014). Econometric determinant of government health expenditure. *Asian Journal of Economics and Social Science 2(1),* 133-149.

Anyanwoncha, R.A.I. (1993). *Fundamentals of Economics*. Africana First Publishers Limited, Onitcha, Nigeria

Aniekwu, G. (2006). Effect of public health expenditure on economic growth in Nigeria. *Journal of Economic Thought*, 3(1), 65-83.

Akintoye, F. & Olowulajo, M. (2008). Evolution and functions of Central Banks. *Central Bank of Nigeria Economic and Financial Review*, 37(4), 11-27.

Babatunde, M.A. (2012). *An analysis of the growth health relationship in Nigeria* -A paper Presented at the center for the study of Africa economic development, Dakar, Senegal.

Bakare A.S. & Sanmi, O. (2011). Health care expenditure and economic growth in Nigeria: An Empirical Study. *Journal of Emerging Trends in Economics and Management Science* (JETEMS), 2(2), 83-87.

Berger, M.C. & Messer, J. (2002). *Public financing of health expenditures, insurance and health outcomes*. Application Economics, 34, 2105-2113.

Bricks, G.T. (2018). Public health expenditure and economic growth. *Humanities Journal of Health Economics,* 3(2), 188-204.

Ehikioya, I.L. & Mohammed, I. (2013). Determinants of public health care expenditure in Nigeria: An Error Correction Mechanism Approach, *International Journal of Business   and Social Science 4(*13).

Federal Ministry of Health. (2003). *Health data statistical analysis and bulletin.*

Federal Ministry of Health. (2009). *National Health Accounts 2003-2009*.

George, A. J. (2018). Impact of Health Allocation on Economic Development in Nigeria, *African Journal of Economics Studies,* 6(2), 102- 118.

Hansen, P. & King, A. (2016). The determinants of health care expenditure: A co-integration approach. *Journal of Health Economics*. 15, 127-137.

Hitiris, T. & Posnett, J. (2016). The determinants and effects of health expenditure in developed countries. *Journal of Health Economics, 11*, 173-81.

Johnson, A. A. (2018). Health Care Expenditure on Economic Growth in Nigeria, *Asian Journal of Health Issues, Asian, 4*, 92-107.

Johansen, S. & Juselius, K. (1990). *Maximum Likelihood Estimation and Inference on Co-integration* –With Application To The Demand For Money, 'Oxford Bulletin of Economics and Statistics. 52, 169-210.

Jhingan, M. L. (2002). *Monetary Economics*, 5th Revised and Enlarged Edition; Delhi; Vrinda Publication (P) Ltd.

Jelilov, G. (2016). The impact of interest rate on economic growth example of Nigeria. *African Journal of Social Sciences,* 4(1), 51-64.

Kee, H. (2009). *Health expenditure and economic growth*, 1ˢᵗ Edition, Kent Publication Limited.

Lawanson, D. I. (2009). *Human capital investment and economic development in Nigeria.* The Role of Education and Health, Oxford Business and Economic conference Programme, Oxford Publication.

Memunat, A. F. (2016). Impact of government health expenditure on economic growth in Nigeria, *Asian Journal of Economics,* 2(8), 122-140.

Moore, G., Danel, A., & Raner, O. (2016). Determinant of health care expenditure on economic growth in Africa, Across Country Modelling Analysis, *Journal of Health Economics,* 8(3), 100-122.

Nurudeen, S., & Usman, G. (2010). HIV-AIDS and health care delivery in Nigeria, *Awka Journal of Economics Issues,* 7(3), 46-66.

Okunade, A. & Karakus, M. (2016). *Unit root and cointegration tests, time series versus panel estimates for international health expenditure models.* Applied Economics.

Olowolagba, S. O. (1999). Government health expenditure and economic development. *African Journal of Health Economics,* 2(1), 100-117.

Oluwalagba, D.A., (2018). Determinants of health expenditure in Nigeria (1980-2018), *Middle East Journal of Health Economics,* 11(6), 150-170.

Organization for Economic Co-operation and Development (1988). New directions in healthcare policy. Health Policy Studied, OECD Publication.

Roberts, J. (2013). Sensitivity of elasticity estimates for organization for economic co-operation and development health care spending, analysis of a dynamic heterogenous data field. Health Economics, *Africa Economics Journal Review,* 14(6) 202-221.

Schultz, R. (1999). Economics, values, and health care reform, *American Economic Review,* 86(1), 1-24

Sein, B., & Dalpatadu, A. (2015). *Health economics*, The New Palgrave Dictionary of Economics, 2ⁿᵈ Edition, Abstract & TOC.

Todaro, M. P., & Smith, S. C. (2009). *Introduction to economic development.* 2ⁿᵈ Edition. Prentice Hall.

World Health Organization (2010). *Health care delivery in African and the implication for Development*, World Health Organization Publication.

World Bank (2005). *Government health expenditure data analysis in Sub-Sahara Africa*, World Bank Publication.

Zweifel, A. S. & Dewin, G. L., & Welison, J. T. (2017). *A glossary of the more common terms encountered in health Economics* in MS Hersh-Cochran and KP Cochran (Eds) Compendium of English.