

Government Health Expenditure and Nigeria's Life Expectancy: A Review

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Abstract

Higher life expectancy is one of the objectives of every economy. Therefore, countries allocate funds yearly to the health sector to achieve this objective. Though the life expectancy has been rising slowly over the years, it is still far below expectation. This study is a review of existing literature on government health expenditure and Nigeria's life expectancy. Literatures for the study were chosen based on relevance to this study. Result from reviewed literatures showed that life expectancy depends primarily on government spending on health. Though some literatures highlighted other factors that may be responsible for low life expectancy. Specifically, per capita income, corruption level, literacy rate, population growth and sanitation level were considered important factors to the improvement of life expectancy. The study concluded that low life expectancy is still a problem in Nigeria that requires necessary commitment. Therefore, the study recommended more government intervention in the health sector, specifically development of infrastructural facilities and financial motivation of health workers to avoid strike will yield increased improvement to life expectancy.

Keywords: Government Health Expenditure, Life Expectancy, Per Capita Income, Corruption

1.0 Introduction

Health is an important part of human life as the productivity of a person depends on health status. One of the major aspects that influences how qualitative human capital is to the growth of an economy is health. When an individual is healthy, whether physically or mentally, that individual has a higher probability of living longer (Wasiu, 2020). There are views that health is wealth though the statement is seen to occupy a primacy of place only in the old traditions. However, it is not completely disconnected from modern reality given that wealth is a function of good health. It is only a healthy

individual that is free from diseases (which can be infectious diseases, hereditary diseases, pathogenic diseases, and psychological diseases). Health is a public good provided by the government which favours the citizens and enables them to live longer because it is provided at a minimal cost and in a location that is easy to reach. (David, 2018).

Countries that prioritize the health sector in allocation of resources have been known to have higher life expectancy, low maternal mortalities, reduced infant mortality, less of malaria, cancer and fever. Such countries include South Africa, Egypt, Tunisia and United States (Penghui, Xicang & Haili, 2022). The life expectancy of a country aids in determining the health status of citizens. An individual's longevity may depend on several factors such as; food eaten, exercises undertaken, environmental factors, price and availability of

health care, gender, income of the individual, culture, heredities and the rate of crime. Measuring the life expectancy of a country helps the country to plan because it gives insight in to how the population will age over time.

World Population Review (2020) ranked Hong Kong as the country with the highest life expectancy in the world with an average life expectancy of 87.8 for females and 82 for males. The country is known to bill the residents 13 dollars for hospital stay per day but provides 95 per cent of subsidy of other cost. Japan is next after Hong Kong with a life expectancy of 84.67 years and its high life expectancy is attributed to eating healthy and the contribution of the government in public health which covered vaccination and insurance. Macau in China also has a high life expectancy of 84.396 years which is associated with their easy access to health care services, clean environment and the robustness of their economy. Other countries include Switzerland (life expectancy of 85.6 years), Singapore (life expectancy of 83.662 years), Spain (life expectancy of 83.612), Italy (life expectancy of 83.568 years), Australia (life expectancy of 85.4) and Iceland (life expectancy of 83.07); whose life expectancy may be attributed to high government spending on health, healthy diet, reduction in road accidents, high income of the citizens and low environmental pollution.

The country with the highest spending on health is the United States of America, spending about 19.7 per cent of their gross domestic product on health in the year 2020 and they were able to achieve a average life expectancy of 78.93. France is known to have one of the best healthcare systems in the world, their statutory health insurance in the year 2000 accommodated every citizen so even when the citizens pay for medical fees it is refunded by the government; in 2020 their life expectancy stood at 79.2 for men and 85.3 for women (Clarkson, 2022). The country in Africa with the highest life expectancy is Algeria, having a life expectancy of 77.14 years in 2021 which can be attributed to the government which gives immense focus to immunization which aids in eradicating and limiting the rate at which diseases spread across the country. The country also has an increasing allocation of a share of the budget to the health sector which has increased the health status of the citizens. The country with the lowest life expectancy is Central African Republic at 53.345 years (Clarkson, 2022).

Government health expenditure has also had varying effects on other health care indicators like infant mortality and maternal mortality which has in turn affected the growth of the economy. Seeing how life expectancy is affected by government health expenditure in other countries it is important to examine the impact government health expenditure in Nigeria.

Statement of the Problem

Despite the consistent allocation of funds to the health sector in Nigeria the life expectancy of Nigerians is still low (55 years). The opportunity cost of allocating funds to the health sector is relatively high which intensifies the need for a justification of the allocation. The low life expectancy may be attributed to misappropriation of funds. For instance, there was supposedly mishandling of health funds in 2017 worth about 350 billion naira (Amata, 2021). Consequently, more funds are appropriated to recurrent expenditure rather than capital expenditure; from 2022 budget 194.60 billion naira was meant for capital projects while 503.98 billion was meant for recurrent spending. Notwithstanding the allocation to capital health expenditure, infrastructural facilities are still poor. Also, in 2021 doctors went on strike twice, a lot of doctors have considered leaving the country as many have left to countries which pay better and as at when due. This may have caused life expectancy of Nigerians to be low. From the budget the per capita for health is ₦3,453 and in reality, the average cost of seeing a doctor without even being treated ranges between ₦1,000 to ₦2,000. When the cost of treatment is included for a regular illness like malaria, the fees go above the ₦3,453 budgeted, which becomes difficult for Nigerians to pay (Olufemi, 2022).

Other factors that may be responsible for low life expectancy are low per capita income, corruption, literacy rate, population growth and environmental factors. Wilson and Olawale (2021) explain that low per capita income of Nigerians may be increasing stress and reducing access to healthcare services because of the inability to afford them, thereby preventing higher life expectancy. Wasiu (2020) opines that life expectancy slow increase in Nigeria may be due to corruption. Corruption has reduced the efficiency and effectiveness of the health sector resulting in poor infrastructural facilities and strike of doctors, which have affected the health status of

Nigerians negatively causing low life expectancy. Abdulganiyu and Tijjani, (2021) explains that population growth in West Africa especially Nigeria, which is the most populated country may be affected by life expectancy negatively because, higher population leads to higher demand for infrastructural facilities, increase in spread of diseases and higher burden on the healthcare system. The effect of high population on the health system may be detrimental to the longevity of the citizens.

There has been varying results by different researchers concerning the influence government spending has on life expectancy; Oni (2014), discovered that government health expenditure has a negative impact on life expectancy in Nigeria. On the other hand, Edeme, Emecheta and Omeje (2017), revealed a contrary opinion of, showing that government health spending has a positive influence on health expenditure in Nigeria. Consequently, Bashir (2016), discover that government health expenditure does not have any statistically significance in explaining life expectancy. In sight of this the study adds to the discussion and the debate on government health expenditure and Nigeria's life expectancy.

2.0 Methodology

This study reviews related literature on government health expenditure and life expectancy in Nigeria. The literatures selected were not restricted to only Nigeria in terms of geographical location but also cover countries that are developing and developed in other to give a wider knowledge of the study. Studies written in English or translated to English were also included. Articles whose result were gotten from experimental studies, systematic studies, observational studies, peer literature or original literature and could give meaning information on this study were incorporated. The articles were also selected based on the time frame of the study (which is 1988 to 2022), any study outside this time frame was excluded.

3.0 Literature Review

Health Expenditure

Health expenditure comprises of public and private sources of funds; where the public source means

payments on health by all government bodies in the economy and that involves donations (external) funding going through these bodies. Private sources on the other hand are households who pay straight (out-of-pocket) at the period of purchasing health services or not direct deposit by involving third party organisations known as insurance or through aid by some non-governmental organizations (Admane & Sliman, 2021). In a different view, health expenditure is an activity with the primary objective to progress, sustain or avoid the gradual death of individuals health level to the point of low life expectancy, population sects or the population in general, as well as to diminish the consequences of ill health; this is attained through competent medical or health care awareness and skills, under management of those with such information, through governance and health system supervision (Kalpanapriya, Mubashir & Sekar 2018). According to Tieguhong and Piabuo (2017), health expenditure is the amount used up by persons, nations, groups and private public organizations for health care and or its different segments. This amount may or may not be comparable to the health care cost and may or may not be divided between the patients, insurers and or employers. Edeme, et al (2017), defines health expenditure on the origin of their most important or major reason of developing the health of citizens in a country, irrespective of the main aim of the sect giving financially for the related health services. Emile (2016), view health expenditure as the part of a countries budget that covers up the need for of healthiness rendered (precautionary and medicinal), family preparation actions for the married, good diet behavior and urgent situation aid assigned for health (but does not comprise stipulation of water and hygiene).

Health expenditure according to Bashir (2016), is when activities are engaged in, either by individual or institutions in applying medical, nursing or paramedical knowledge and technical know-how with the major aim of developing, preserving and reestablishing health. Ahmad and Hasan (2016) agreed with Bashir (2016) that health expenditures are things done by individuals or institutions but they included that the application could be through traditional, complementary and alternative medicine in other to promote, restore and maintain health. They further explained that health expenditure is divided into various categories of health care suppliers, finance schemes and health

care functions; in essence it includes goods and services arranged in order of their purposes.

Generally, health expenditure can be viewed as that part of the revenue of a country which is allocated to the health sector in order for the citizens to be healthier and live longer to be productive in the economy.

Life Expectancy

Many scholars have viewed life expectancy in various contexts. Clarkson (2022), explains life expectancy in terms of life expectancy at birth which is the mean period that any organism is predictable to survive from its time of birth, age currently and other factors like environment. To Admane and Sliman (2021), life expectancy is the average age at death intended for a certain set of people which increases as the standard of living in the country also increases which can be achieved by increasing per capita income of the citizens. Cameron, Contreras and Cornwell (2019), defines life expectancy as the average age that the people in a given environment and population will be at the time of their death which is the anticipated age of an individual.

Consequently, Stout (2018), opines that life expectancy at an age reveals the average number of years a person has left if that person with the same age bracket as others and in the same environment were to experience mortality rates for a certain year spanning the years they have left to live. In the view of Tieguhong and Piabuo (2017), life expectancy is determined when a person has experienced different mortalities that can occur at different ages in their environment. Life expectancy for older people have risen drastically due to development in medical facilities. Life expectancy in households with high per capita income did not differ much with households with low per capita income. David (2018), is of the opinion that life expectancy is the number of years that any person is likely to survive the different death rates evident in his or her given environment.

Life expectancy is the possible number of years that a person or group of individuals have left when calculated statistically and is influenced by different factors which could include diet, heredity, profession and physical disorder.

Theoretical Framework: Wagner's Theory of Increasing Public Expenditure

Over a hundred years ago, this law was advocated by a German Economist named Adolph Wagner (1915). Wagner put together the 'Law of the Increasing Extension of State Activity'. Wagner is of the notion that there is intrinsic probability for the actions of dissimilar divisions of a regime to raise both intensively and extensively and result in economic growth. The theory presumes the survival of an efficient association among the growth of an economy and the growth of government actions, which in this study is government spending on health in Nigeria. The law emphasizes long-term forces instead of short term alter in communal expenditure (Wagner, 1883). Wagner's law is the main awareness that illustrates the likely association between increased government spending and its impact on anything; such as the life expectancy (Brown & Jackson, 1994).

Wagner was of the opinion that there are three causes of a raise in government expenses on the health sector. The reasons are first, industrialization and modernization; it leads to higher spending on infrastructure which will result in the sector being able to attain a more effective health status. The second is the government increasing real income which helps citizens attain more health care options at small or no charge. The third is the government taking up the sole mandate of running the health sector because of the huge financial investment that the health sector requires (Bird, 1971).

Empirical Review: Relationship Between Health Expenditure and Life Expectancy

Health expenditure can influence life expectancy by health's effect on human and material capital buildup. Likewise, individuals who are healthy have a strong motivation to increase their information and skills because they look ahead to enjoy the profit over longer period. The writing review by Strauss and Thomas (1998) shows a series of confirmation behind the association existing between life expectancy and health expenditure; it elucidates how spending in health increases life expectancy. They elucidate that, as investment in health increases, there is a resultant rise in life expectancy thereby increasing the human capital available in the economy. Accordingly, poor health spending has an unfavorable decline in life expectancy which was discovered after Wasiu (2020), Kumar and Choudhary (2020) and Wilson and Olawale (2021) applied Autoregressive

Distributed Lag model (ARDL) to study the effect of government health spending on life expectancy; consequently, the result revealed that government spending on health is a major factor in describing the existence of slow development in many countries throughout the world. Specifically, Wasiu (2020) and Wilson and Olawale (2021) emphasize the importance of curbing corruption in the health sector in Nigeria. Curbing of corruption will aid the health sector have more funds which can be appropriated to the improving infrastructural facilities and increasing wages of health care workers. This will assist in motivating health workers and developing health facilities, which will increase longevity. Omoloba (2020) also highlighted that lower corruption and increased government spending will promote an efficient and effective healthcare center which will aid higher life expectancy. There may also be lesser substandard drugs which will save lives and increase longevity. Also, Wilson and Olawale (2021) explained the importance of literacy levels and number of physicians in increasing life expectancy. Literate individuals are more health conscious and understand health requirement. This enables them avoid anything that may be detrimental to their health. The higher the number of doctors the less the work load, which will enable better health care delivery. Applying Error Correction Mechanism (ECM), Ibrahim and Rejoice (2022) and Rahman and Bassey (2018) highlight that the longevity of citizens in a country depends majorly on the influence of government spending on the health sector in Nigeria. Though the influence may be minimal if illiteracy is high. Higher levels of illiteracy may prevent the understanding of health information's and affect health life choices.

Wilson and Olawale (2021) and Kumar and Choudhary (2020) prioritize individuals' per capita income in increasing life expectancy. Higher per capita income enables individuals afford basic health care needs and the required nutrients for longevity. Also prioritizing per capita income, Rezapour, Mousavi, Lotfi, Movahed, et al. (2019) employed panel data regression model while Ogungbenle, Olawumi and Obasuyi (2013) employed Vector Autoregressive (VAR) model and Filmer and Pritchtee (2010) utilized multivariate regression model, they deduce that higher life expectancy reveals a higher state of health of the population in two aspects: firstly, when a country

has a high life expectancy it means that the people live long and are productive, the higher the level of productivity level the higher the income for the economy which enables higher spending on the health sector. Secondly, higher income from productivity is encouraged by technological growth and a sect of this growth is seen in the development and high spending in medical science. Consequently, higher income for the country leads to higher investment in different sectors which provides more employment. This in turn enables individuals the ability to afford health care services without being dependents.

Abdulganiyu and Tijjani, (2021) accentuates the importance sanitation and population growth to human survival after the application of two-stage least square model. The study revealed that in West Africa, life expectancy reduces with an increase in government spending. The increase in life expectancy is also attributed to factors like clean water and proper hygiene. Also, economies with lower population have fewer people competing for health requirements. Mathias, Dickson and Bising (2013), suggest that there is a strong affiliation connecting health expenditure and life expectancy, although health expenditure is not the only feature which affects life expectancy; others include diet, psychological factors and personal hygiene. Health expenditure also affects labour force contribution given that in good health individuals work extra and is bodily fit. They have the tendency be extra creative, receive more revenue and have high life expectancy speed. Amplified public expenditure on healthcare will raise peoples' capability to be productive. Moreover, sound health condition decreases constant infirmity and develops physical and psychological work competence.

Sabra (2022) employed panel data while Ghorashi and Rad (2017) utilize dynamic simultaneous equation models in analyzing the relationship between government spending and life expectancy focusing on the effect of environmental factors (CO₂). The study revealed that government spending is vital for the life expectancy of citizens, though carbon emission (CO₂) declines longevity. An increase in air pollution, natural disasters and exposure to chemicals can increase illness like cancer, lung diseases and neurological damage which declines life expectancy.

According to Ojong, Ekpo and Anthony (2016), which agrees with all other reviewed studies

government expenditure on health develops the life expectancy of the citizens. Agreeing to this view, Scholars like Kalpanapriya, Mubashir, and Sekar (2018), employ Vector Error Correction Model (VECM) conclude that expansion of government expenditure especially in terms of the health sector contribute positively to life expectancy. Implying therefore that government spending on health sector is a major factor of the amount of the country's life expectancy. On one hand, Edeme, et al (2017), agrees with other studies that government health spending positively influences life expectancy in Nigeria after studying how public health expenditure affects health outcomes from 1981-2014, employing ordinary least square. On the other hand, Bashir (2016), discovers after studying Nigeria from 2000-2016, that government health expenditure does not have any statistically significance in explaining life expectancy when Pearson's moment correlation was employed. Also, Ogungbenle, Olawumi and Obasuyi (2013), discover a negative relationship between government spending on health and life expectancy in Nigeria, after studying the relationship between government health spending and economic growth from 1977 to 2008. The study employed VAR. Consequently, Oluwatoyin, Folasade and fagbeminiyi (2015), study the relationship health outcomes and government spending on health in Nigeria from 1979 to 2012. Employing VECM the result revealed a negative relationship between life expectancy and government spending on health. In the same vein, Oni (2014), opines that government health expenditure has a negative impact on life expectancy in Nigeria after studying the effect government health expenditure on the growth of Nigeria from 1970 to 2010, employing multiple regression analysis and using life expectancy as a control variable.

4.0 Challenges Facing Government Health Expenditure and Life Expectancy in Nigeria

The health division in any country is the sustaining factor of its growth and eventual development. The health sector in Nigeria is faced with financial struggle beside various rival requirements in the budget. Bilateral, multilateral support and government spending on health needed services have not transformed into improved health status of the regular Nigerian. Political instability and high corruption levels have been a major factor affecting

the health care system in Nigeria. Over the years changes in government regimes have affected continuity of health policy. Also, embezzlement of funds appropriated to the health sector have worsened infrastructural facilities making them inefficient. Accordingly, excessive interference by the government which results in poor decision making and giving importance to political concerns over the health of citizens (Wilson & Olawale, 2021).

Low per capita income has made many individuals to patronize second-rate drugs, resulting to low life expectancy. Inadequate per capita income leads to little or no access to basic health care services. Even when the government provides health care services at a subsidized price, individual with low income still find it hard to afford basic health care needs. This leads to poor health and lower life expectancy. Living a healthy life style is also unattainable because the income is insufficient. Individuals may delay medical care due to financial constrains which will affect longevity (David, 2018). Literacy rate has been a major problem in Nigeria because illiterate individuals have difficulties understanding health information. Many of them cannot read medical prescription or dosage level required for a drug. This leads to higher death rate. Also, illiterate people are more vulnerable to poor health because of their life style (Ibrahim and Rejoice, 2022). Nigeria being the most population country in Africa has affected the health status of citizens negatively because the rising population has led to an increase in the demand for health requirements, healthcare workers have become insufficient to meet the health demands, infrastructural facilities are both insufficient and inadequate and contagious diseases spread faster. Thereby reducing the longevity of the populace (Abdulganiyu & Tijjani, 2021).

Nigeria's health care sector is also bedeviled with disturbing factors such as, inadequate management of human resources, poor motivation and compensation, insufficient health amenities and structures, unbalanced and unsustainable health care spending, ever increasing user fees, nonexistent integrated system for disease avoidance, observation and treatment, not enough access to health care, scarcity of essential drugs and supplies and little or no health care givers which has caused a low life expectancy rate. Policies undone and other discrepancies over the years tended to destabilize some health modification in the past.

Strategies created for effective accomplishment of nationwide health programmes in the three layers of government (federal, state, and the local government) are inadequately put into service due to the politics of federalism (independence and resource control). Increasing disease burden and population outburst has resulted in vicious cycle of poverty, lack of security and indecision (Anyika, 2014). Complete poor quality makes them extra exposed to illness while sickness has made them of poorer quality. The foremost causes of high death rate include: hypertension, lassa fever, malaria, stroke, typhoid, diabetes, HIV/AIDS, underfeeding, cancer, unwanted pregnancy, polio, blindness and so on which lead to low productivity and are connected with poverty, poor living conditions, and ignorance. They have little recurrent income from agricultural and petty-trading, low income, little or no investments, which results in a vicious sequence of poverty. In addition, a small number of health infrastructures existing are unequal among urban-rural areas causing higher deaths in rural areas (Innocent, Uche & Uche, 2014).

Over the years a lot of money has been pumped into teaching hospitals yet Nigerians still suffer from poor health care services because of the nonexistence of up-to-date facilities in numerous hospitals. This is linked to the breakdown of consecutive governments to pay sufficient concentration to the health division. The federal portion for the health region is too minimal especially when most of the funds go into the recurrent expenditure rather than capital expenditure leaving a lot of hospitals without infrastructure to bear the most basic requirements such as steady electricity supply for hospital equipment, motor able roads to transport patients to and from the hospitals, emergency medical service and personnel, and even water for proper sanitation. Insufficient and outdated equipment in Nigerian hospitals had over time contributed to the movement of Nigerian doctors and other health care personnel out of the country in seeking better opportunities. Even the funds that go into the recurrent expenditure seems to be insufficient as doctors occasionally go on strike due to withheld salaries (Muanya, 2020).

5.0 Conclusion and Recommendation

This study is a review of existing evidence on government health expenditure and Nigeria's life

expectancy. The outcome of this paper shows that several authors emphasize government spending on health as a major determinant of life expectancy in Nigeria. Though other factors were highlighted by some authors as determinants of life expectancy, these factors include per capita income, corruption, literacy rate, population growth rate, environmental factors and the level of sanitation. It was explained that the slow growth in life expectancy in Nigeria may be largely attributed to government spending on health and the factors named. Based on the evidences presented, the study concludes that low life expectancy in Nigeria is still a problem that requires a solution.

This study therefore recommends the need for more government intervention into the health sector, specifically development of infrastructural facilities and financial motivation of health workers to avoid strike. Also, corruption should be curbed to improve budget transparency and financial management. Literacy can be improved by increasing access to quality education at a subsidized rate and introducing literacy programs for adults. Population growth can be managed by introducing family planning and deployment of healthcare professions to rural areas to educate them on health-related requirements. Carbon emission can be managed through the use of environmentally friendly sources of energy. Improved sanitation can be achieved through waste management, access to clean water and regular cleaning.

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