

Review Article

The Nexus of Health Workers' Incentives, Health Workers' Migration and Nigeria's Economic Growth and Development, 1999 – 2023: An Analytical Review

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Abstract

Like education, investment in healthcare is critical to every economy's human capital development, because human capital development serves as the bedrock of economic growth and development. This view is supported by theories and empirical studies. Nigeria's participation in the previous United Nations' Millenium Development Goals (MDGs) and the current Sustainable Development Goals (SDGs) also attests to this. The attainment of SDGs number 3, *ensure healthy lives and promote well-being for all at all ages* and number 4, *ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*, is very important to the attainment of the remaining goals. Despite this obvious importance of investment in health and education to Nigeria's sustainable economic development, the political leaders have not lived up to electorates' expectations in terms of their campaign promises, words, actions and policies in providing adequate budgetary allocations for health and education. The purpose of this paper is to conduct an analytical review of investment in health through the lens of health workers' incentives, the influence of inadequate incentives on health workers' migration, and the consequences of these on Nigeria's economic development from 1999, when Nigeria returned to civil rule until 2023 when the last administration handed over power to the incumbent government. A thorough search of Google Scholar for studies, and web search of media reports on Nigeria's healthcare expenditure, economic growth, health workers' incentives, strike actions, and migration from 1999 – 2023 was conducted, and available studies and reports were analyzed. The results show that from May 1999 to May 2023, the total number of days that health workers in Nigeria have embarked on industrial strike due to poor incentives was 319 days (about 10 and a half months). The regular health workers' incentives which are usually responsible for the strike actions include salary structures, payment of arrears, welfare packages, quality of hospital equipment, funding for training programs, working conditions, and other incentive or welfare-related factors. Poor incentives have not only necessitated incessant industrial actions but have also promoted mass migration of Nigeria health workers, and other outcomes, all serving as mediating factors of the relationship between health workers' incentives and economic development. Overall, Nigeria has lost and is losing certain percent of its productive workforce, and this undermines its economic development.

Keywords

Health Workers' Incentives, Health Workers' Migration, Health Workers' Strike, Sustainable Development Goals, Healthcare Expenditure, Economic Growth and Development

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1. Introduction

Generally, employees' incentives, motivation, population health, labor force productivity, economic growth, and development are interconnected. Nigeria Health workers (HWs) face poor incentives, and this is evident in the number of industrial actions they have embarked on in the last twenty-four years, in their migration trend, and in the quality of healthcare services provided to Nigerians. From May 1999 to May 2023, the total number of days that HWs in Nigeria have embarked on industrial strike due to poor incentives was 319 days (about 10 and a half months). Though, it is difficult to get the exact number of Nigerian medical doctors who migrated out of Nigeria from 1999 to 2023, report showed that the number of Nigeria-trained medical doctors practicing in the U.S. as of 2020 was 3,895 while the UK was reported to have 4,528 as of July 2021, giving a total of 8,425 Nigeria-trained medical doctors in the two countries aside those in other countries like Canada, Saudi Arabia, and United Arab Emirates, who are also expected to be in a few thousands as well [1-3]. This number does not include Nigerian nurses, midwives, and other health workers in the UK and all Nigerian HWs in other countries like the US, Canada, Australia, Saudi Arabia, and United Arab Emirates, which runs into thousands [4, 5]. Incentives cover salary structures, payment of arrears, welfare packages, quality of hospital equipment, funding for training programs, working conditions, and other welfare-related factors. Incentives can be categorized as financial and non-financial [1, 6, 7]. Lack of priority for and inadequate budgetary allocation to healthcare, coupled with systemic corruption contribute to poor HWs' incentives, HWs migration, quality of healthcare services, workforce productivity, and economic growth and development [8-12]. Despite tremendous human and natural resources, Nigeria has less than 1 physician per 1,000 patients [13]. There are many reasons why this is the case but one of the most common explanations is the failure of the Nigerian government to provide adequate incentives for health workers, which in turn incentivizes the migration of the available health workers to greener pastures. Other reasons include lack of adequate funding for education, especially health/medical education, lack of patronage of the healthcare system by Nigerian politicians and the elite leading to neglect and lack of adequate investment in the health sector, large scale corruption by public office holders incentivized by lack of accountability, prosecution, conviction, and sentencing of corrupt public officers, and poor state of Nigeria economy.

2. Materials and Methods

A scoping search of Google Scholar and the web generally, was conducted for studies and media reports on Nigeria's healthcare expenditure, healthcare and economic growth and development, health workers' incentives, strike actions, and migration from 1999 to 2023. Due to the large number of

studies and reports generated, only those that meet the search criteria of Nigeria's healthcare expenditure, healthcare and economic growth and development, health workers' incentives, HWs strikes, and HWs migration were included for review. In addition, for space, and time constraints, and to prevent redundancy, careful selections were also made between studies or reports that covered the same or almost the same issues. However, overall, the selected studies and media reports reflect the general themes, findings and perspectives of virtually all the studies and reports on the key search criteria. The common theme of poor incentives as the primary reasons for all the health workers' strike makes using HWs' industrial actions a good proxy for health workers' incentives in this paper since incentives are both financial and non-financial.

3. Results

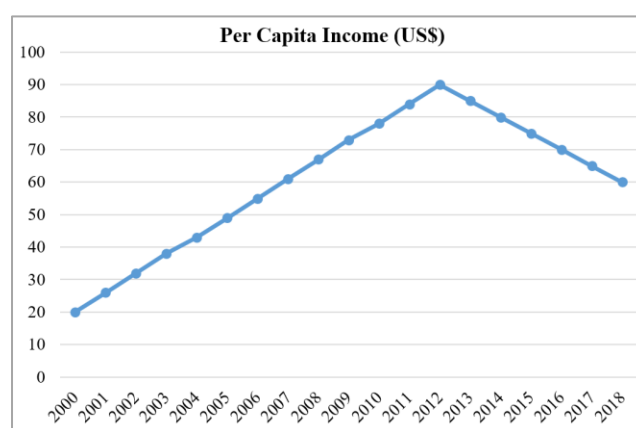
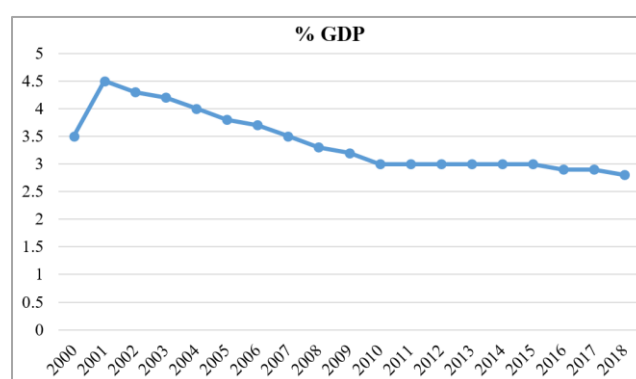


Figure 1. Health Expenditure (Per Capita Income US\$).



Source: [14]

Figure 2. Health Expenditure (% GDP).

Figures 1 & 2 above show that Nigeria's budgetary allocation to healthcare has been below 5 percent consistently while

per capita healthcare expenditure has also been below \$100. Based on World Health Organization's (WHO) health expenditure indicators and their consequences and implications, Nigeria's healthcare expenditure as a percentage of GDP and healthcare expenditure per capita indicate that health, including nutrition, is not regarded as a priority by the Nigerian government [15]. Therefore, the failure of Nigerian government to prioritize healthcare continues to reflect in low healthcare budgetary allocation, poor HWs incentives, regular HWs strike, increased migration of HWs, poor quality of healthcare services, and poor population health outcomes with negative implications on the economy.

Table 1. Nigeria's Health Indicators.

Description	Value
Life Expectancy (2023)	55.75
Neonatal Mortality Rate (2021)	35/1,000
Infant Mortality Rate (2017)	69/1,000
Under-5 Mortality Rate (2021)	111/1,000
Maternal Mortality Rate (2020)	1,047/100,000
Doctor-Patient Ratio (2022)	1/10,000
Nurse-Patient Ratio (2022)	1/1,160
Hospital bed-Patient Ratio (2020)	0.9/1,000

Sources – [16-21]

The different health indicators place Nigeria among the countries with the worst health outcomes in the world. Nigeria's life expectancy is one of the worst in the world, being among the five lowest. Nigeria has the third-highest maternal mortality rate and second-highest neonatal mortality rate in the world, while 64 percent of under-five deaths result from malaria, pneumonia, and diarrhea. In 2022, the Punch reported that the president of the Nigerian Medical Association, Uche, stated that Nigeria needs 363,000 doctors but has only 24,000. The national average doctor-patient ratio of 1: 10,000, and this stands in contrast with the WHO recommendation of a 1: 600 doctor-patient ratio. The nurse-patient ratio of 1/1,160 also stands in stark contrast with the WHO recommendation of a 1: 5 nurse-patient ratio based on the report

from the Nigerian Association of Nurses and Midwives. The global average of hospital beds per 1,000 patients in 2020 was 2.3, but Nigeria had only 0.9 hospital beds per 1,000 patients [16-21].

The president of the National Association of Nigeria Nurses and Midwives (NANNM), Michael Nnachi, stated that over 57,000 Nigerian nurses migrated between 2017 and 2022. The expected outcomes would be worsening health outcomes for Nigerians, reduced productivity, and poor economic growth and development. Rather than addressing the root cause of the problem, Nigerian policymakers in early 2023 proposed a bill that would impose a five-year mandatory service on medical graduates before being fully licensed to practice, but this may be shortsighted and counterproductive. First, it does not address the ongoing brain drain because it cannot prevent those already licensed from migrating. It could discourage enrollment in medical and nursing schools or encourage more Nigerian students to explore the opportunities to study and practice medicine, nursing, dentistry, etc., abroad to avoid the five-year mandatory service or other constraints imposed by the proposed amendment to the Medical and Dental Practitioners Act if they study in Nigeria. The outcome would still not be optimum for the healthcare sector and millions of Nigerians who need access to health care. The five-day warning strike embarked upon by doctors in Nigerian public hospitals on 17 May 2023 is a pointer to the fact that the Nigerian government is still not getting things right [22-25].

4. Discussion

4.1. The Effects of Poor Incentives on HWs Strikes and Migration

Poor incentives for HWs have documented effects, and these effects have impacts on economic growth. One of the outcomes of poor HWs incentives is HWs strikes. Studies show factors such as poor welfare, salary, healthcare leadership and management, infrastructure, and governmental failure to implement agreements are usually responsible for HWs strikes [26-28]. These factors can be broadly classified as financial and non-financial incentives [29]. Tables 2 & 3 below show the number of days Nigerian HWs embarked on strikes from May 1999 to May 2023, and demonstrate that successive administrations have not made improving HWs incentives, and the Nigerian healthcare system a priority.

Table 2. Number of days of industrial action by Nigeria health workers by administration 1999 – 2023.

Administration	Year	Number of days of industrial action
President Olusegun Obasanjo	1999 - 2007	91
President Umaru Musa Yar'Adua	2007 - 2010	4

Administration	Year	Number of days of industrial action
President Goodluck Jonathan	2010 - 2015	60
President Muhammadu Buhari	2015 - 2023	164
Total		319

Source: [1]

Table 3. Number of days of industrial action by health workers' association 1999 – 2023.

Association	Number of days of industrial action
Nigerian Association of Resident Doctors (NARD)	232
Joint Health Sector Unions (JOHESU)	53
Nigeria Medical Association (NMA)	29
Association of Medical Laboratory Scientist of Nigeria (AMLSN)	5
Total	319

Source: [1]

Another documented outcome of poor incentives is HWs migration. Studies show that factors that drive migration of HWs are remuneration, taxes and deductions from salary, working conditions, and job satisfaction [30, 31]. These factors also can be classified broadly as financial and non-financial incentives and therefore allow us to draw a connection between poor incentives and HWs migration. As stated earlier in the introduction section, 3,895 Nigeria-trained medical doctors were practicing in the U.S. as of 2020 while 4,528 were practicing in the UK as of July 2021, besides 57,000 nurses that were reported to leave Nigeria between 2017 and 2022.

4.2. The Effects of Poor Incentives on Economic Growth and Development

As discussed in the section above, poor incentives induce HWs strikes and motivate their migration. Apart from these two effects, poor incentives also reduce quality of healthcare services, which in turn worsens population health outcomes [32]. Poor health outcomes on the other hand reduce labor productivity and economic performance. Usually, during HWs strikes, HWs reduce the number of hours and the scope of services they render. New patients may not be admitted for treatment while already admitted patients may be discharged before completing their treatment and asked to seek treatment in private hospitals. This may be financially burdensome or beyond their financial capacity, thereby reducing their access

to needed healthcare services, or creating health complications. Thus, poor and limited healthcare services due to poor incentives, and inadequate funding of the health sector, reduce access to required healthcare services during periods of HWs strike. This would increase preventable death and disability, and reduce labor productivity, and economic output [12, 33]. The migration of Nigerian HWs also has multidimensional impacts on Nigeria's economic growth and development. Increased HWs migration will reduce the health worker to patient's ratio, increase patients' waiting time to access care, increase workloads, and stress on the existing HWs, and reduce the quality of healthcare and health outcomes. In aggregate overtime, this will have negative impacts on economic output and inhibit economic growth because economic growth and development require a healthy, active, and adequate human capital. Nigeria's GDP performance by administration from 1999 to 2023 in the table below shows that the economy has not maintained a consistent growth trend. The worst average growth was recorded during the immediate past administration [34]. The inflation rates have been consistently higher than the GDP growth rate, meaning that Nigerians get worse off year on year. Part of the solutions to attaining steady economic growth, is solving the problem of HWs incentives, and their migration because improved HWs incentives and reduced migration will contribute to improved healthcare services, improved health outcomes, increased labor productivity, and better economic performance.

Table 4. Indicators of Nigeria economic performance from 1999-2023.

Administration	Year	Average GDP Growth (%)	Average Inflation Rate (%)
President Olusegun Obasanjo	1999 - 2007	6.95	13.23
President Umaru Musa Yar'Adua	2008 - 2010	7.98	12.60
President Goodluck Jonathan	2011 - 2015	4.80	9.70
President Muhammadu Buhari	2016 - 2023	1.40	16.18

Sources – [35, 36]

4.3. Policy Response to Address Poor Health Workers' Incentives Effectively and Efficiently

Though it may seem unrelated on the surface, the real, effective, efficient, and sustainable solution to poor HWs incentives, and their impacts on population health outcomes and economic growth in Nigeria, is tackling corruption. The root cause of most of the problems in Nigeria is corruption which manifests in many shades and forms – poor leadership, bad governance, budget padding, nepotism, tribalism, federal employment racketeering, bribery etc. Inadequate budgetary allocation to healthcare, poor HWs incentives, HWs strikes, HWs migration, poor economic performance are symptoms of corruption, which is the real problem. For example, the current inadequate budgetary allocation to healthcare is still subject to misappropriation by public officers at the ministry of health, and healthcare institutions. The Nigerian government needs collaborative engagement with all stakeholders like the different HWs professional organizations, researchers, citizen groups, and Non-Governmental Organizations, on the effective ways to tackle corruption. The collaboration should produce a comprehensive framework for an innovative healthcare policy that supports adequate healthcare funding, competitive incentives for HWs, the development of Electronic Medical Records, transparency, and digitalized healthcare spending that curbs corrupt practices, the strategies for effective policy implementation, the criteria for policy evaluation, and leadership accountability.

5. Conclusion

This review broadly elaborates on HWs incentives, HWs strikes and migration, and the impacts of these on economic growth and development. To improve HWs incentives, and reduce their strikes, migration and increase economic growth, Nigeria government must tackle corruption. Through policy diffusion, the Nigerian government can learn from and adopt healthcare innovations successfully implemented in other countries, especially low- and middle-income countries, invest adequately in healthcare and health technology, provide adequate remuneration and incentives to HWs and build an

innovative, effective, efficient, equitable, and sustainable healthcare system that contribute robustly to its economic growth and development. When the economy grows and develops, the social determinants of health of economic mobility, access to health care, quality education, quality housing, and social support are expected to increase as well, and this is expected to improve individual, community and population health, wellness and wellbeing. Economic growth and development and the improvements in the social determinants of health are expected to continue to reinforce each other.

Abbreviations

MDGs	Millenium Development Goals
SDGs	Sustainable Development Goals
HWs	Health Workers
WHO	World Health Organization

Author Contributions

Olumayowa Adeleke Idowu is the sole author. The author read and approved the final manuscript.

Conflicts of Interest

The author declares no conflicts of interest

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