LIFE EXPECTANCY IN NIGERIA (1960-2023): A MULTILEVEL ANALYSIS OF TRENDS, DETERMINANTS, AND POLICY PATHWAYS

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Article Info

ABSTRACT

Life expectancy is a central indicator of population health and socio-economic development. This paper investigates the trends, determinants, and policy implications of life expectancy in Nigeria from 1960 to 2023 using a multilevel theoretical framework and quantitative statistical analysis. Secondary data from the World Bank were employed to analyze the relationship between life expectancy and GDP per capita over six decades. Descriptive statistics, correlation analysis, and regression models were applied. Findings show that while life expectancy increased steadily from 37.2 years in 1960 to 54.5 years in 2023, GDP per capita showed volatility. A time-trend model explained 93% of the variation in life expectancy, compared to 40% explained by GDP per capita. These results underscore that structural, systemic, and syndemic factors beyond economic growth are critical determinants of survival. The study argues for multilevel policy pathways addressing poverty, governance, health systems, and disease clustering to improve life expectancy in Nigeria.

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INTRODUCTION

Life expectancy (LE) is one of the most fundamental indicators of population health and socio-economic development. It serves as a composite measure that reflects both individual well-being and the functionality of public health systems, social policies, and governance structures (Deaton, 2013; Marmot, 2015). According to the World Health Organization (2023), global life expectancy increased from 64.2 years in 1990 to 73.3 years in 2023, largely due to advances in vaccination, maternal and child health, nutrition, and the expansion of primary healthcare. However, this global progress has not been evenly distributed, particularly in low- and middle-income countries (LMICs) like Nigeria. Nigeria's life expectancy remains critically low 55.2 years as of 2023 placing it significantly below both the global average (73.3 years) and the Sub-Saharan African regional average of 62.4 years (World Bank, 2023). This alarming disparity highlights the country's persistent structural and systemic health challenges. Nigeria accounts for one of the highest burdens of preventable mortality worldwide, including a disproportionate share of global maternal deaths (20%), child mortality, and deaths from malaria and other infectious diseases (United Nation Children's Fund [UNICEF], 2022; WHO, 2023).

Various scholars have attributed this lag to a combination of biomedical, infrastructural, and socio-political factors. Aregbeshola and Khan (2018) emphasize that poor healthcare financing, out-of-pocket payments, and health worker shortages contribute significantly to avoidable mortality. In addition, conflict, displacement, and regional inequalities particularly in the North-East and North-West exacerbate health risks and limit access to care (Okoli & Ugwu, 2020). While interventions such as the National Health Policy (2004; 2016), the Basic Health Care Provision Fund (BHCPF), and donor-supported programs have been introduced, they have often been undermined by implementation bottlenecks, fragmented health governance, and limited political commitment (Aregbeshola, 2017; Federal Ministry of Health [FMOH], 2021).

Statement of Problem

In settings like Nigeria, survival is as much a function of politics and social justice as it is of clinical care (Deaton, 2013). Several empirical studies further illustrate Nigeria's predicament. For instance, Bloom, et al. (2020) compare Nigeria with other African countries like Ethiopia and Rwanda that have achieved life expectancy gains through health system strengthening and inclusive public health strategies. While, Nigeria has struggled with weak health data systems, inadequate intersectoral coordination, and underinvestment in primary healthcare (World Bank, 2022). Despite the wealth of literature on Nigeria's health crisis, much of the existing research remains fragmented focusing on specific diseases, demographic groups, or economic analyses without integrating the full spectrum of determinants through a multilevel theoretical lens. Very few studies apply holistic frameworks such as the Social Determinants of Health (SDH), Fundamental Cause Theory (FCT), or Syndemic Theory to understand the cumulative impact of social disadvantage and institutional failure on life expectancy. This represents a critical gap in both academic inquiry and health policy formulation. Consequently, this study adopts a multilevel, theory-informed approach to interrogate the trends, structural drivers, and policy limitations shaping Nigeria's life expectancy outcomes.

Aim and Objective

The paper sought to deliver an extensive analysis of that integrates theoretical models by investigating life expectancy in Nigeria from 1960 to 2023. It specifically examined the trends, complex factors, and policy actions obstacles in Nigeria.

Literature Review

Conceptual Review

Various concepts used in the study are given adequate review in this segment of the paper.

Life Expectancy

Life expectancy (LE) refers to the statistically projected average number of years a person is expected to live, assuming current mortality rates remain constant (WHO, 2023). It is not only a biological indicator but also a powerful composite reflection of health systems, economic conditions, and sociopolitical environments (Deaton, 2013). According to Glei and Horiuchi (2007), life expectancy captures the overall mortality experience of a population and is highly sensitive to deaths at young ages, especially in low-income countries. In Nigerian, the relatively low LE underscores systemic health and development issues such as infectious disease prevalence, maternal mortality, poor healthcare access, and sociopolitical instability (Bloom, et al., 2020).

Health Inequality vs. Health Inequity

Health inequality refers to measurable differences in health outcomes between individuals or groups, such as differences in life expectancy between urban and rural populations (Braveman & Gruskin, 2003). Health inequity, however, focuses on unjust and avoidable disparities that arise from systemic failures such as poverty, discrimination, or unequal access to healthcare (Whitehead, 1992). In Nigeria, health inequities are visible in the pronounced regional disparities: for instance, northern states consistently show poorer health outcomes due to higher poverty rates, lower education, and conflict-related displacement (NPC & ICF, 2018). According to Solar and Irwin (2010), addressing health inequities requires systemic interventions that target the root causes of marginalization, including economic, gender, and geographic inequalities.

Determinants

Determinants in terms of LE can be broadly classified into three levels:

Proximal determinants: These include immediate health risks such as infectious diseases, malnutrition, maternal and child mortality, and personal health behaviors (Lozano, et al., 2011). In Nigeria, malaria, tuberculosis, and perinatal complications remain top killers (UNICEF, 2022).

Intermediate determinants: These relate to the functioning and quality of the healthcare system such as health workforce density, accessibility, availability of medicines, and financing (WHO, 2007). Nigeria's physician-to-population ratio remains at 0.2 per 1,000 people, far below the WHO-recommended minimum of 4.45 (FMOH, 2021).

Structural determinants: These include broader social, economic, and political conditions like education, income, governance, and social protection systems (Marmot, et al., 2008). The impact of poor governance, corruption, and oil dependency in Nigeria exacerbates health system inefficiency and underinvestment (Aregbeshola & Khan, 2018).

Determinants of Life Expectancy across the Global

Globally, life expectancy (LE) has witnessed substantial gains over the last half-century, rising from 52.6 years in 1960 to 73.3 years by 2023 (World Bank, 2023). These improvements are attributed to advances in immunization, maternal and child healthcare, sanitation, improved nutrition, and expanded access to medical services (WHO, 2023). Countries like Japan, Switzerland, and Norway consistently record the highest life expectancy due to their strong health systems, low inequality, and high investment in social welfare (Marmot, 2015). However, Sub-Saharan Africa continues to lag in global life expectancy rankings, despite improvements over recent decades. In 1990, the average life expectancy in the region was just 49.3 years; by 2023, it had increased to 62.4 years (World Bank, 2023). This regional average masks internal disparities: while countries such as Rwanda and Ethiopia have made significant strides due to robust public health interventions and community-based care, others like, Chad, and the Central African Republic have stagnated or regressed due to persistent structural challenges (Bloom, et al., 2020; Kruk, et al., 2018). Factors limiting LE gains in Africa include high rates of infectious diseases (e.g., HIV/AIDS, malaria), maternal mortality, malnutrition, and under-resourced health systems. The Ebola and

COVID-19 pandemics further exposed weaknesses in disease surveillance and emergency preparedness across the continent (Nkengasong & Mankoula, 2020).

Nigeria's life expectancy (LE) has followed a slow and uneven trajectory, influenced by complex interactions between socio-economic inequality, weak health systems, high disease burden, and governance failures. From 1990 to 2023, life expectancy at birth in Nigeria rose from approximately 46.7 years to 55.2 years, which remains significantly below the global average of 73.3 years and the African regional average of 62.4 years (World Bank, 2023; WHO, 2023). Historical data show that life expectancy in Nigeria improved marginally in the late 1990s and early 2000s due to increased investment in immunization, HIV/AIDS response programs, and expanded maternal and child health services (Fagbamigbe, et al., 2020). However, gains have been stagnated by recurring public health crises, economic recessions, and insurgency-related humanitarian emergencies, particularly in the North-East (Okoli & Ugwu, 2020).

Moreover, the Institute for Health Metrics and Evaluation (IHME) (2020) suggest that while under-five mortality has decreased, adult mortality especially among men has remained high due to chronic conditions, injury-related deaths, and weak health system responsiveness. In addition, gender disparities in life expectancy are also significant. Although Nigerian women have higher LE (approximately 56.8 years) than men (53.6 years), they face greater health system challenges such as high maternal mortality (512 deaths per 100,000 live births), exposure to gender-based violence, and limited access to reproductive health services (NPC & ICF, 2018).

Regionally, the North-East and North-West zones record the lowest life expectancies, driven by conflict, malnutrition, displacement, and poor infrastructure. In contrast, the South-West and South-East zones report relatively higher LE due to better education, healthcare access, and urbanization (Adeniran, et al., 2021). These variations reflect the influence of structural and intermediate social determinants, as conceptualized in the Social Determinants of Health (SDH) model (Dahlgren & Whitehead, 1991), and confirm that geographic and socioeconomic inequalities are critical drivers of life expectancy in Nigeria.

Furthermore, armed conflict, political instability, and governance deficiencies further complicate Nigeria's life expectancy challenges. For instance, the Boko Haram insurgency in the North-East, banditry in the North-West, and communal clashes across the Middle Belt have not only led to widespread displacement but have also destroyed critical health infrastructure and disrupted service delivery. Okoli and Ugwu (2020) observe that internally displaced persons (IDPs) in these zones suffer from inadequate access to food, water, shelter, and medical care, all of which are essential determinants of survival. The erosion of public trust in government institutions, compounded by corruption and policy incoherence, undermines the implementation of health reforms. Programmes like the Basic Health Care Provision Fund (BHCPF) and the National Health Insurance Scheme (NHIS), though promising on paper, have been constrained by weak accountability mechanisms and lack of political continuity (Yusuf & Wada, 2020).

Policy Interventions and Barriers in Nigeria

Efforts to improve life expectancy in Nigeria have historically been guided by numerous health-related policy interventions at the federal, state, and local levels. These initiatives, while often well-conceived, have yielded only marginal gains in population health due to persistent implementation barriers. The disconnection between policy formulation and execution continues to undermine the effectiveness of health interventions designed to reduce mortality and promote longevity (Aregbeshola & Khan, 2018; Uzochukwu, et al., 2015). One of the most prominent national interventions is the National Health Policy (NHP), revised in 2016 to align with the Sustainable Development Goals (SDGs). The NHP emphasizes equitable access to quality essential health services and financial risk protection, in line with the Universal Health Coverage (UHC) agenda (FMOH, 2018). It supports the integration of maternal, newborn, and child health (MNCH), disease control, and health promotion. However, limited

awareness, poor intergovernmental coordination, and weak accountability structures have hindered its effective roll-out (Onwujekwe, et al., 2019).

Another critical initiative is the Basic Health Care Provision Fund (BHCPF), established under the National Health Act (2014) to provide a dedicated source of financing for primary healthcare services. It mandates that at least one percent of the Consolidated Revenue Fund be allocated annually to fund primary health services, particularly in rural and underserved areas. While the BHCPF has increased funding for primary care in some states, issues related to delayed disbursement, lack of transparency, and limited capacity for financial management at the local level have constrained its overall impact (Abubakar, et al., 2022; Uzochukwu, et al., 2015). There is also a lack of community awareness and ownership of BHCPF processes, which weakens accountability and community participation.

The National Strategic Health Development Plan II (NSHDP II) 2018–2022 was another effort to accelerate progress in life expectancy through improved health governance, system efficiency, and equitable service delivery. Despite its technical robustness, the plan suffered from inadequate funding, minimal monitoring, and poor alignment between national and subnational actors (FMOH, 2018; WHO, 2023). This reflects a recurring problem in Nigeria's health system policy fragmentation and the overlap of responsibilities among federal, state, and local governments, leading to duplication of efforts and inefficient resource use (Adewoyin, 2020).

Universal Health Coverage (UHC) has also been a key policy aspiration, operationalized primarily through the National Health Insurance Scheme (NHIS), launched in 2005. The NHIS was expected to increase access to affordable health services and reduce out-of-pocket payments. However, enrollment remains extremely low under 10% of the population due to exclusion of the informal sector, lack of political will, and trust deficits between citizens and providers (Yusuf & Wada, 2020). Moreover, the scheme is often criticized for poor service quality, delays in provider payments, and corruption within Health Maintenance Organizations (HMOs) (Onoka, et al., 2013).

From a broader developmental lens, Nigeria has implemented multi-sectoral policies aimed at tackling social determinants of health. These include the National Social Safety Nets Programme (NASSP) and the National Gender Policy, which seek to reduce poverty and promote gender equity respectively. However, evaluations show that these initiatives are either underfunded, poorly monitored, or vulnerable to political interference, limiting their potential to positively influence life expectancy through improved education, food security, and social protection (National Bureau of Statistics [NBS], 2022; Adamu, et al., 2021).

In terms of global partnerships, Nigeria has benefited from donor-funded programs such as the Global Fund, GAVI, and the World Bank's Results-Based Financing (RBF). While these have helped increase vaccination coverage and reduce disease-specific mortality (e.g., HIV/AIDS, malaria), sustainability remains a major concern. Over-reliance on external funding creates a fragile system that may not withstand donor withdrawal or shifts in global priorities (Ekpenyong, et al., 2021).

Theoretical Framework

Social Determinants of Health (SDH) Model

The Social Determinants of Health (SDH) model, developed by Dahlgren and Whitehead (1991), conceptualizes health outcomes as the result of multiple, layered influences ranging from individual behaviors to broader structural factors. The model identifies five key levels of influence: individual lifestyle factors, social and community networks, living and working conditions, general socioeconomic, cultural and environmental conditions, and structural governance arrangements. In Nigeria, these determinants manifest in profound disparities between northern and southern states, rural and urban areas, and among different socio-economic classes (National Population Commission [NPC] & ICF, 2018; Fagbamigbe, et al., 2020). The SDH framework is particularly

useful in highlighting how poverty, low female education, environmental degradation, and poor governance translate into unequal exposure to health risks and differential access to care (Marmot, et al., 2008). Its relevance to Nigeria lies in its capacity to connect macro-level social policy failures with micro-level health outcomes, such as child mortality, maternal health, and infectious disease burden.

Fundamental Cause Theory (FCT)

Fundamental Cause Theory, first proposed by Link and Phelan (1995), asserts that certain social conditions such as socioeconomic status (SES), education, and power persistently shape health outcomes over time because they provide access to multiple resources that help individuals avoid disease. These "flexible resources" include money, knowledge, social connections, and influence, which can be used to reduce exposure to risk and enhance health even as specific diseases and mechanisms change. FCT is particularly relevant in explaining why health disparities endure even when new treatments or technologies become available. In the Nigerian context, this theory helps explain why the educated elite in urban centers enjoy longer life expectancies despite national health system weaknesses. Conversely, those with limited education or income are less likely to benefit from advances in public health or healthcare delivery, reinforcing intergenerational cycles of poor health (Aregbeshola & Khan, 2018).

WHO Health Systems Framework

The WHO Health Systems Framework (2007) identifies six building blocks essential for a functional health system: service delivery, health workforce, health information systems, essential medicines, financing, and leadership/governance. Together, these components determine how effectively a health system can respond to population needs and improve health outcomes, including life expectancy. In Nigeria, many of these components are underdeveloped or poorly managed. For instance, Nigeria has fewer than 0.3 physicians per 1,000 people, far below the global benchmark of 4.45 (FMOH, 2021). Application of the WHO framework allows for systematic evaluation of Nigeria's health sector, pinpointing structural bottlenecks that hinder service delivery, equity, and sustainability. Researchers such as Uzochukwu, et al. (2015) have used this model to analyze gaps in human resources, pharmaceutical access, and leadership that affect national health outcomes. Inadequate performance across all six building blocks contributes to weak maternal care, poor immunization coverage, and high disease burden all of which depress life expectancy.

Syndemic Theory

Syndemic Theory, developed by Singer (1994) and later expanded by Singer, Bulled, and colleagues (2017), describes how two or more co-occurring diseases interact within a population, compounded by adverse social conditions such as poverty, violence, or institutional neglect to intensify poor health outcomes. This theory is particularly powerful in understanding the health crisis in northern Nigeria, where endemic malaria, tuberculosis, and malnutrition converge with structural violence, forced displacement, and food insecurity (Okoli & Ugwu, 2020). For example, in internally displaced persons (IDP) camps, poor sanitation, malnutrition, and stress-induced immunosuppression amplify disease vulnerability and mortality (UNICEF, 2022). Syndemic theory reframes health as a biosocial phenomenon emphasizing how social injustice, inequality, and environmental risk exacerbate disease interactions (Mendenhall, 2016). Applying syndemic theory to Nigeria reveals how clustered diseases are not merely additive but synergistic, compounding the decline in life expectancy in the most marginalized regions.

Synthesis of Theoretical Frameworks

Together, these four frameworks provide a multilevel, interdisciplinary lens through which Nigeria's life expectancy crisis can be understood. While SDH and FCT emphasize structural inequality and resource access, the WHO framework addresses systemic capacity, and syndemic theory explains the synergistic effects of social adversity and disease interaction. This

synthesis allows for a more nuanced policy response that incorporates both upstream (structural) and downstream (clinical/systemic) interventions.

Methodology

Data and Sources

This study relies on secondary, time-series data from the World Bank (2023) on Nigeria's life expectancy at birth (1960–2023) and GDP per capita (constant 2010 USD).

Data and Methods

The analysis proceeded in three stages:

1. Descriptive analysis of trends (mean, minimum, maximum, standard deviation).
2. Correlation analysis between GDP per capita and life expectancy.
3. Regression analysis with two models: Model 1: Life expectancy regressed on GDP per capita. Model 2: Life expectancy regressed on Year (trend model).

Model Specification

$LE\_t = \alpha + \beta1\ GDP\ pc\_t + \varepsilon\_t$

$LE\_t = \alpha + \beta2\ Year\_t + \varepsilon\_t$

Where LE_t = life expectancy at year t, $GDP\ pc\_t$ = GDP per capita, and ε_t = error term. Models estimated using OLS regression.

Results

Table 1: Nigeria's Life Expectancy at Birth (1960–2023)

Year	Life Expectancy	Year	Life Expectancy	Year	Life Expectancy
1960	37.21	1961	37.43	1962	37.61
1963	37.81	1964	37.98	1965	38.22
1966	38.35	1967	37.5	1968	38.64
1969	38.95	1970	40.01	1971	40.61
1972	41.27	1973	41.83	1974	42.49
1975	43.05	1976	44.19	1977	44.85
1978	45.35	1979	45.74	1980	45.96
1981	46.31	1982	46.44	1983	46.44
1984	46.34	1985	46.19	1986	45.95
1987	45.89	1988	45.83	1989	45.83
1990	45.73	1991	45.48	1992	45.59
1993	45.78	1994	45.75	1995	45.87
1996	45.83	1997	45.96	1998	46.15
1999	46.61	2000	47.14	2001	47.55
2002	48.02	2003	48.62	2004	49.15
2005	49.54	2006	49.88	2007	50.38
2008	50.75	2009	51.08	2010	51.31
2011	51.49	2012	51.69	2013	51.83
2014	51.94	2015	51.94	2016	52.19
2017	52.4	2018	52.67	2019	53.01
2020	53.07	2021	53.45	2022	54.08
2023	54.46				

Source: World Bank, 2023

Table 2: Nigeria's GDP Per Capita (Constant 2010 USD, 1960–2023)

Year	GDP per Capita	Year	GDP per Capita	Year	GDP per Capita
1960	1454.98	1961	1428.12	1962	1455.82
1963	1547.48	1964	1589.68	1965	1631.56
1966	1528.59	1967	1260.73	1968	1218.43
1969	1480.05	1970	1808.39	1971	2018.17
1972	2036.69	1973	2093.64	1974	2267.04
1975	2089.86	1976	2214.32	1977	2278.7
1978	2082.55	1979	2155.79	1980	2177.42
1981	1834.29	1982	1659.1	1983	1440.02
1984	1387.92	1985	1428.93	1986	1391.48
1987	1398.25	1988	1461.19	1989	1449.68
1990	1577.2	1991	1541.59	1992	1571.19
1993	1498.96	1994	1433.39	1995	1395.07
1996	1416.1	1997	1420.24	1998	1419.32
1999	1390.47	2000	1421.68	2001	1465.46
2002	1644.4	2003	1717.21	2004	1824.8
2005	1889.25	2006	1949.16	2007	2020.83
2008	2098.28	2009	2204.61	2010	2315.47
2011	2370.98	2012	2403.65	2013	2495.34
2014	2583.62	2015	2585.73	2016	2481.81
2017	2441.71	2018	2431.78	2019	2431.54
2020	2337.58	2021	2372.57	2022	2398.99
2023	2416.36				

Source: World Bank, 2023

Table 3: Nigeria's Life Expectancy and GDP per Capita (1960–2023)

Year	Life Expectancy (Years)	GDP per Capita (2010 USD)
1960	37.21	1454.98
1961	37.43	1428.12
1962	37.61	1455.82
1963	37.81	1547.48
1964	37.98	1589.68
1965	38.22	1631.56
1966	38.35	1528.59
1967	37.5	1260.73
1968	38.64	1218.43
1969	38.95	1480.05
1970	40.01	1808.39
1971	40.61	2018.17
1972	41.27	2036.69
1973	41.83	2093.64
1974	42.49	2267.04
1975	43.05	2089.86
1976	44.19	2214.32
1977	44.85	2278.7
1978	45.35	2082.55
1979	45.74	2155.79
1980	45.96	2177.42
1981	46.31	1834.29
1982	46.44	1659.1
1983	46.44	1440.02
1984	46.34	1387.92
1985	46.19	1428.93

1986	45.95	1391.48
1987	45.89	1398.25
1988	45.83	1461.19
1989	45.83	1449.68
1990	45.73	1577.2
1991	45.48	1541.59
1992	45.59	1571.19
1993	45.78	1498.96
1994	45.75	1433.39
1995	45.87	1395.07
1996	45.83	1416.1
1997	45.96	1420.24
1998	46.15	1419.32
1999	46.61	1390.47
2000	47.14	1421.68
2001	47.55	1465.46
2002	48.02	1644.4
2003	48.62	1717.21
2004	49.15	1824.8
2005	49.54	1889.25
2006	49.88	1949.16
2007	50.38	2020.83
2008	50.75	2098.28
2009	51.08	2204.61
2010	51.31	2315.47
2011	51.49	2370.98
2012	51.69	2403.65
2013	51.83	2495.34
2014	51.94	2583.62
2015	51.94	2585.73
2016	52.19	2481.81
2017	52.4	2441.71
2018	52.67	2431.78
2019	53.01	2431.54
2020	53.07	2337.58
2021	53.45	2372.57
2022	54.08	2398.99
2023	54.46	2416.36

Source: World Bank, 2023

Descriptive Statistics

Life expectancy ranged from 37.2 years (1960) to 54.5 years (2023), averaging 46.2 years. GDP per capita ranged from $1,218.4 (1968) to $2,585.7 (2015), averaging $1,847.4.

Statistic	Life Expectancy	GDP per Capita
N	64	64
Mean	46.2	1847.43
Std. Dev.	4.89	416.34
Minimum	37.21	1218.43
25th Percentile	43.9	1453.66
Median	45.96	1762.8
75th Percentile	50.47	2227.5
Maximum	54.46	2585.73

Figure 1: Life Expectancy Trend in Nigeria (1960–2023)

Figure 1: Life Expectancy Trend in Nigeria (1960–20

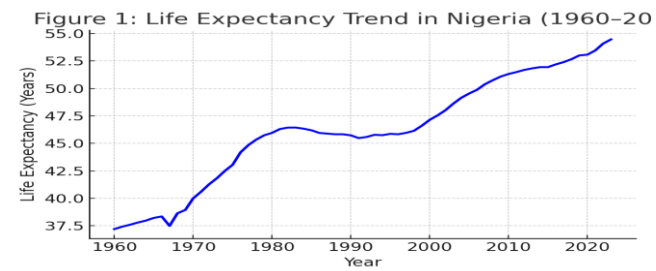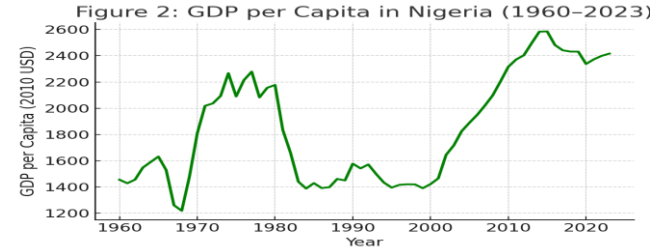**Figure 2: GDP per Capita in Nigeria (1960–2023)**

Figure 2: GDP per Capita in Nigeria (1960–2023)

Correlation Analysis

The correlation between GDP per capita and life expectancy is r = 0.63.

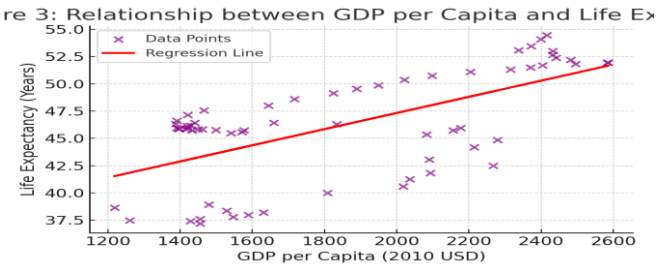**Table 5: Correlation Matrix (Life Expectancy and GDP per Capita)**

Variable	Life Expectancy	GDP per Capita
Life Expectancy	1	0.63
GDP per Capita	0.63	1

Regression Analysis

Table 3: Regression Results for Life Expectancy Models (1960–2023)

Model	Intercept	Coefficient	R-squared	p-value
GDP per Capita → Life Expectancy	32.52	0.0074	0.397	0
Year → Life Expectancy	-459.07	0.2537	0.932	0

Figure 3: Relationship between GDP per Capita and Life Expectancy

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Discussion of Findings

The study's findings reveal that Nigeria's life expectancy rose from 37.2 years in 1960 to 54.5 years in 2023, consistent with the modest gains reported in earlier works such as Fagbamigbe, et al. (2020), who highlighted that regional disparities and persistent health inequalities continue to slow national progress. Despite this upward trend, Nigeria lags behind the Sub-Saharan African average of 62.4 years and the global average of 73.3 years, reaffirming Bloom et al.'s (2020) argument that unlike Rwanda and Ethiopia, Nigeria has failed to translate policy reforms into robust survival gains due to weak institutional and health system capacities.

The regression analysis further demonstrated that economic growth alone is insufficient to explain improvements in life expectancy, as GDP per capita accounted for only 40% of the variation. This aligns with Aregbeshola and Khan (2018), who argued that Nigeria's reliance on out-of-pocket payments and poor health financing mechanisms constrain equitable access to care. Similarly, Kruk, et al. (2018) found that mortality in low- and middle-income countries is more strongly tied to the quality of healthcare systems than to wealth alone, which supports the result that structural and systemic issues limit Nigeria's progress.

The strong explanatory power of the time-trend model ($R^2 = 0.93$) reflects the cumulative impact of incremental health programs such as immunization campaigns, HIV/AIDS responses, and maternal health initiatives rather than economic expansion. This resonates with the WHO (2008) Commission on Social Determinants of Health, which emphasized that long-term survival gains are rooted in social investments and equitable health systems. Furthermore, the moderate correlation ($r = 0.63$) between GDP per capita and life expectancy reinforces the point made by Marmot (2015) and Deaton (2013): while economic growth improves survival prospects, structural inequality and governance deficits determine who benefits most.

Finally, the findings lend strong support to Syndemic Theory. As noted by Okoli and Ugwu (2020) and UNICEF (2022), conflict, displacement, and clustering of malaria, tuberculosis, malnutrition, and maternal mortality in northern Nigeria create a biosocial environment where poor health outcomes are amplified. This explains why Nigeria's progress has been slower than expected despite international donor support.

Conclusion

This study concludes that while Nigeria's life expectancy has improved over six decades, the gains remain fragile and below regional and global standards. The findings corroborate earlier research (Fagbamigbe, et al., 2020; Adeniran, et al., 2021) that regional and gender disparities persist, with the North-East and North-West disproportionately burdened by conflict, poverty, and weak infrastructure. Consistent with Aregbeshola (2017) and Yusuf & Wada (2020), the results show that health financing mechanisms, such as the NHIS and BHCPF, remain underutilized due to poor implementation and governance challenges.

The weak linkage between GDP and life expectancy also confirms the position of Link and Phelan's (1995) Fundamental Cause Theory, which emphasizes that socioeconomic inequalities endure even in the face of new resources. In Nigeria, economic growth has not translated into equitable survival because of entrenched corruption, inequitable distribution of resources, and systemic inefficiencies. This conclusion echoes Kruk, et al. (2018), who argued that low-quality healthcare contributes more to premature mortality in LMICs than mere absence of care.

Overall, the study supports the synthesis of the SDH, FCT, WHO Framework, and Syndemic Theory by showing that Nigeria's life expectancy challenges are not simply biomedical but structural, systemic, and syndemic. Sustainable improvements require multilevel interventions that simultaneously address poverty reduction, health financing, governance reforms, and integrated disease control.

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