

Health insurance scheme and socio-economic development in Bayelsa state

Ebi-Tobin, Tekena Great¹, David Solomon Pere², Joseph Aneke³

Department of Insurance, Faculty of Management Sciences, Niger Delta University, Bayelsa State, Nigeria.

¹Corresponding email: tekenatobino01@gmail.com

ABSTRACT

This study empirically investigates the relationship between health insurance schemes and socio-economic development in Bayelsa State. Specifically, it examines the impact of health insurance schemes on healthcare accessibility and analyzes the relationship between health insurance coverage and socio-economic development. Employing a quantitative research design, the study utilizes a descriptive survey approach to systematically collect and analyze numerical data. A multistage sampling technique was applied to select respondents from both insured and uninsured populations, while primary data was gathered through structured questionnaires. The study employed inferential statistical techniques, including regression analysis and chi-square tests, to assess relationships among key variables. The findings indicate a significant positive correlation ($r = 0.581, p < 0.01$) between health insurance schemes and healthcare accessibility, demonstrating that expanded insurance schemes enhance healthcare access. Additionally, a strong positive relationship ($r = 0.667, p < 0.01$) was observed between health insurance coverage and socio-economic development, suggesting that broader coverage improves healthcare reliability and economic stability. These results highlight the crucial role of structured health insurance policies in reducing financial barriers and enhancing healthcare outcomes. The study recommends that the government expand enrollment in health insurance schemes, particularly for low-income and rural populations, and that regulatory bodies implement policies ensuring timely reimbursements to healthcare providers. Strengthening health insurance frameworks will contribute to equitable healthcare access and socio-economic development in Bayelsa State.

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1. INTRODUCTION

In many nations, health insurance is an essential part of the healthcare system, guaranteeing people's access to medical care and financial security. To increase healthcare accessibility, especially for poor people, Nigeria launched the National Health Insurance Scheme (NHIS) in 1999 (NHIS, 2021). Despite this effort, there is still a lack of widespread adoption and execution of health insurance programs, particularly in rural regions like as Bayelsa State, where a sizable population lacks access to high-quality healthcare and is economically disadvantaged (Onwujekwe et al., 2019). Nigeria's Niger Delta is home to Bayelsa State, which is distinguished by its riverine terrain and reliance on oil exploration for its economic growth. The state has a number of socioeconomic issues, such as poor human development indices, high rates of poverty, and insufficient healthcare facilities, despite its abundance of natural resources (World Bank, 2022). Inadequate budget, subpar healthcare facilities, and a shortage of qualified medical staff are problems facing Bayelsa State's health industry (Amaghionyeodiwe, 2020). Because of these difficulties, health insurance is an essential policy instrument for enhancing access to healthcare and fostering socioeconomic growth. The goals of health insurance programs are to lower out-of-pocket medical costs, shield households from unaffordable medical bills, and increase overall economic output (Uzochukwu et al., 2018). By lessening the financial burden of medical treatment on people and families, health insurance can enhance life expectancy, improve health outcomes, and promote economic growth when properly implemented (Aregbeshola & Khan, 2020). Nonetheless, it appears that many Bayelsa State citizens are still struggling financially as a result of medical expenses given the low level of knowledge and membership in health insurance programs (Adeloye et al., 2021).

The health of a region's population is directly related to its socioeconomic progress. A healthy workforce results from having access to reasonably priced healthcare through health insurance, which boosts output and stability in the economy (WHO, 2021). The absence of universal health insurance coverage in Bayelsa State has led to poor health indicators, which have an impact on family income levels and labor market participation (Eboh et al., 2020). Furthermore, it is challenging to include Bayelsa residents into official health insurance programs due to the informal structure of the local economy, where a large number of people work in small commerce, fishing, and subsistence farming (Odeyemi & Nixon, 2021). By lowering health-

related financial hardship and increasing healthcare consumption, the introduction of health insurance in Bayelsa State has the potential to improve socioeconomic development. According to empirical research, universal health coverage improves economic performance and lessens disparities in access to healthcare (Alawode & Adewole, 2019). However, issues including inadequate policy execution, a lack of political will, and low public knowledge still make Nigerian health insurance programs less successful (Onoka et al., 2018). In order to identify important obstacles and chances for better healthcare funding, it is necessary to investigate the connection between Bayelsa State's socioeconomic growth and health insurance programs.

1.1 Problem Statement

Bayelsa State still faces major healthcare issues in spite of several healthcare regulations and initiatives meant to improve health outcomes in Nigeria. Due to the state's limited adoption of the National Health Insurance Scheme (NHIS), which was intended to reduce financial risk and enhance access to healthcare, citizens continue to face economic problems and health disparities (Obansa & Orimisan, 2020). There are questions over the healthcare system's capacity to adequately handle the population's health requirements given the restricted coverage of health insurance plans in Bayelsa State. Households in Bayelsa State, especially those in low-income categories, are heavily burdened financially by the high cost of healthcare services (Edejer et al., 2018). Many inhabitants depend on paying for medical care out of pocket, which frequently leads to poorer health problems, higher death rates, and delayed healthcare-seeking behavior (WHO, 2020). These issues are made worse by the lack of an effective and easily accessible health insurance program, which leaves a sizable portion of the populace susceptible to financial shocks brought on by medical bills (Ekpenyong et al., 2019). Additionally, a major obstacle to enrolling in health insurance in Bayelsa State is the informal economy. Contributory health insurance schemes are challenging to implement since a significant section of the workforce works in unregulated economic activities such farming, fishing, and small-scale commerce (Ogunleye et al., 2021). Many people's access to healthcare services is restricted since they are unable to pay regular contributions to their health insurance due to the absence of formal job arrangements (Onwujekwe et al., 2020). The insufficient healthcare infrastructure in Bayelsa State is another serious problem. The quality and accessibility of medical care continue to be issues, even for people with health insurance. The overall effectiveness of health service delivery is impacted by the state's

numerous healthcare institutions' inadequate funding, subpar equipment, and lack of medical personnel (Ajayi et al., 2019). The potential advantages of health insurance are undermined by this infrastructure shortfall as insured people can still find it difficult to get high-quality medical treatment when they need it (Ilesanmi et al., 2020).

Residents of Bayelsa State also generally lack knowledge about and confidence in health insurance programs. Low enrollment rates are caused by a large number of persons who believe health insurance is unneeded or who are ignorant of its advantages (Azuogu et al., 2018). Health insurance plans are less effective overall when participation is further discouraged by misinformation and mistrust of government-led initiatives (Adisa, 2019). This ignorance has led to a persistent dependence on self-medication and traditional medicine, which may not always offer sufficient medical treatment (Fadare et al., 2020). Examining the variables affecting the uptake and efficacy of health insurance programs in Bayelsa State is crucial, considering the vital role that health insurance plays in fostering socioeconomic development. By lessening the financial strain that medical bills place on households, addressing these problems would not only increase access to healthcare but also promote overall economic stability. In order to improve healthcare finance and accessibility, this study aims to assess how health insurance programs affect socioeconomic development in Bayelsa State, highlighting important issues and offering workable policy solutions..

1.2 Study Objectives

The general objective of this study is to empirically investigate the relationship between health insurance scheme and socio-economic development in Bayelsa State. However, the specific objectives are to:

- To examine the impact of health insurance schemes on healthcare accessibility in Bayelsa State.
- To analyze the relationship between health insurance coverage and socio-economic development in Bayelsa State.

2. CONCEPTUAL REVIEW

2.1 Health Insurance Schemes

The concept of combining resources to reduce financial risks associated with health has a long history, especially in labour movements. According to Andersen (2005), artisans and craftspeople in mediaeval Europe banded together to form guilds, which are professional unions. These guilds served as the first mutual assistance organisations, setting up pooled money to help members who became ill or experienced financial difficulties as a result of their illness. Regular contributions from members strengthened the idea of shared financial responsibility. The idea changed over time, and by the late 18th and early 19th centuries, businessmen, small-scale farmers, and groups of workers in the same sector or area started creating official sick funds. The foundation for contemporary health insurance systems was laid by these mutual benefit organisations, which offered financial support during illness. As the system developed, guilds needed medical certification to verify claims. At its core, health insurance is a system that uses premiums or pooled contributions to pre-finance medical costs. It functions by pooling money from several people or organisations to pay for certain medical treatments under an insurance policy, claim Oriakhi and Onemolease (2012). In addition to providing financial protection against unanticipated medical expenses, health insurance acts as a social safety net. The goal of insurance in general is risk management, a notion that is intricately linked to human endeavours. According to Bob-Alli (2010), insurance helps to reduce the "uncertainty of loss," which is a constant in day-to-day living. Two major advantages of insurance are that it distributes risk over a broader group: (1) monetary recompense for individuals who lose money, and (2) psychological comfort for those who contribute but may never need to make a claim. In particular, hospital stays, medical procedures, and occasionally longer-term care requirements like long-term nursing or disability support are all covered by health insurance (Quaye, 1991).

Arhin-Tenkorang (2001) goes on to describe it as a risk-sharing mechanism that lessens the load on any one person by distributing healthcare costs among a community. Employer-sponsored plans, government-run social insurance schemes, or commercial insurers may be used to manage this system. Nigeria's National Health Insurance Scheme (NHIS) was created in 2005 with the goal of enhancing population health overall and healthcare accessibility and affordability. As a public-private collaboration, the NHIS works with both public and private healthcare providers as well as Health Maintenance Organisations (HMOs). Its main goal is Universal Health Coverage (UHC), which would guarantee that no Nigerian faces financial hardship while having access to necessary medical care. The NHIS's initial goal was to achieve UHC in ten years (2005–2015), however actual development has been slower than expected. The government licenses HMOs and accredits healthcare facilities as part of the NHIS framework. In turn,

HMOs serve as middlemen, making purchases of medical services for enrolled members. Only five of the 62 HMOs that now manage over 75% of all participants under the NHIS show a concentration of coverage among a small number of providers. Federal personnel are eligible under the NHIS and may register up to four biological children under the age of eighteen as well as their spouses. From NHIS-accredited institutions, enrollees are allowed to choose the healthcare professionals they choose (Federal Ministry of Health, 2014).

2.2 Health Insurance Scheme in Nigeria

Nigerian health insurance programs are intended to provide access to healthcare services and provide people with financial security against excessive medical expenses. With the creation of the National Health Insurance Scheme (NHIS) in 1999, the idea of health insurance in Nigeria gained popularity. In order to improve healthcare finance and expand universal health coverage (UHC), the NHIS was implemented (Adewole & Osungbade, 2016). Many Nigerians are at risk of incurring crippling out-of-pocket medical bills due to the long-standing underfunding of the country's healthcare system. In order to lessen people's financial burden and provide fair access to high-quality healthcare services, the introduction of health insurance therefore became a top governmental objective. Nigeria still has a low rate of health insurance coverage despite the NHIS's creation. According to studies, the program only benefits a tiny portion of the population, mostly federal government employees and those employed in the formal sector (Onoka et al., 2013). There is a gap in attaining universal health coverage since the informal sector, which makes up a sizable fraction of the Nigerian labor, is mainly excluded from the advantages of health insurance. Many Nigerians experience financial difficulty as a result of the continued reliance on out-of-pocket expenditures as a primary barrier to healthcare access (Aregbeshola & Khan, 2018). Nigerian health insurance programs seek to solve these issues by combining resources to guarantee that people may obtain medical treatment without becoming bankrupt. The general lack of knowledge and comprehension of health insurance plans is one of the main issues Nigerian health insurance programs face. Many Nigerians lack sufficient knowledge about the advantages of health insurance and how to sign up for existing programs, particularly those living in rural regions (Uzochukwu et al., 2015). Adoption of health insurance is further constrained by the belief that it is only for the rich or those working in the formal sector. The low rate of health insurance adoption in the nation is also influenced by cultural norms and a lack of confidence in insurance systems. Some people may rather use more conventional means of paying for healthcare, such self-medication or group support, than sign up for an insurance plan. The ineffective management of Nigeria's health insurance programs is another significant issue. The NHIS and other health insurance systems have not been implemented effectively due to bureaucratic bottlenecks, corruption, and bad management (Odeyemi & Nixon, 2013). The efficacy of the program has decreased as a result of mistrust between members and healthcare professionals brought on by the lack of openness in fund administration. The goal of the program has occasionally been undermined when service providers have turned away customers with health insurance due to delays in payment to healthcare providers. For Nigeria's health insurance program to be implemented successfully, several administrative inefficiencies must be solved.

Additionally, there are also concerns about the financial viability of Nigerian health insurance programs. According to Okpani and Abimbola (2015), the NHIS, for example, is primarily financed by payments from formal sector employers and workers, with little assistance from the government to subsidize coverage for disadvantaged groups and the informal sector. It is challenging to get universal health care because of this funding mechanism, which limits the scheme's growth. To offer coverage to people working in the unorganized sector, attempts have been made to implement community-based health insurance programs (CBHIS). Nevertheless, these programs have encountered difficulties including poor membership, erratic premium payments, and insufficient finance (Abiuro & McIntyre, 2013). Improving health insurance coverage in Nigeria requires bolstering the financial foundation of health insurance programs through donor assistance, government subsidies, and creative financing techniques. The State Social Health Insurance Scheme (SSHIS), which permits state governments to create their own health insurance programs, is one of the measures the Nigerian government has taken to increase the number of people covered by health insurance (Adebayo et al., 2015). By customizing programs to meet the requirements of various regions, this decentralized strategy seeks to improve access to health insurance. States have had varying degrees of success with these programs, though, with some having low membership numbers, poor governance, and insufficient money. Active stakeholder involvement, appropriate regulatory frameworks, and strong political commitment are necessary for the successful implementation of state-level health insurance programs.

The finance of healthcare in Nigeria has also been influenced by private health insurance. As an alternative to government-sponsored programs, private health insurance plans are mostly provided by Health Maintenance Organizations (HMOs) (Soyemi et al., 2018). These programs mostly serve people and businesses who are prepared to pay for high-quality medical treatment. However, only a limited percentage of people, primarily in metropolitan regions, can afford private health insurance due to its high cost. Policies that guarantee affordability and inclusion in health insurance systems are necessary, as seen by the differences between commercial and public health insurance plans. In Nigeria, health insurance programs have had a mixed effect on healthcare quality and access. According to studies, those with health insurance are more likely than those without to seek medical attention when necessary (Onwujekwe et al., 2010). Additionally, those who enroll in health insurance typically have greater financial security against unanticipated medical expenses. Nonetheless, questions still surround the caliber of medical treatment given through insurance programs. In healthcare institutions authorized by the NHIS, some insured individuals complain of poor treatment, lengthy wait times, and restricted access to medications (Aregbeshola & Khan, 2018). Resolving these quality issues is essential to boosting enrollment among Nigerians and enhancing public confidence in health insurance programs.

Policymakers must address important obstacles such as low knowledge, ineffective administrative practices, financial sustainability, and the caliber of healthcare services in order to improve the efficacy of Nigeria's health insurance programs. To promote enrollment and raise knowledge of the advantages of health insurance, particularly in rural regions, public education programs must be stepped up. Through subsidies and adjustable payment plans, government policy should also concentrate on extending coverage to vulnerable groups and the unorganized sector. Enhancing the regulatory structure that oversees health insurance plans would contribute to increased accountability and openness in fund administration. Additionally, boosting enrollment and system confidence requires raising the caliber of healthcare services offered under insurance plans. Important steps that can improve service delivery include funding for healthcare facilities, educating medical staff, and guaranteeing the supply of necessary medications. In order to mobilize resources and execute creative ideas for increasing health insurance coverage, cooperation between the public and corporate sectors as well as foreign partners is also required. Nigerian health insurance programs are essential for expanding access to healthcare and offering financial security against exorbitant medical expenses. The efficacy of these programs is, however, hampered by obstacles including low coverage rates, ineffective administrative practices, problems with financial sustainability, and worries about service quality. Comprehensive policy changes, heightened government commitment, and active stakeholder involvement are necessary to address these issues. Nigeria may make great strides toward attaining universal health coverage and guaranteeing fair access to high-quality healthcare services for all of its population by fortifying its health insurance systems.

2.3 Healthcare Demand Theory

Economic theories that look at the connection between health, healthcare consumption, and economic growth have been used to study the demand for healthcare services in great detail. The human capital model of health demand, initially created by Grossman in 1972, is the basis of this research. According to this innovative approach, investments in healthcare may enhance health, which is viewed as a long-lasting capital asset that generates utility. According to this theory, people seek healthcare because it preserves or increases their health capital, which raises their quality of life and productivity. The innovative notion that health deteriorates over time and may be impacted by personal decisions about medical treatment, lifestyle choices, and other health-related behaviours was first presented by this model. Cropper (1977) expanded the concept by adding the direct disutility brought on by disease episodes, building on Grossman's pioneering work. This crucial improvement made it possible to distinguish between curative therapies that restore compromised health and preventative healthcare initiatives that preserve health capital. Cropper's work also clarified how healthcare demand fluctuates over the life cycle, with older populations needing more curative interventions and younger people generally investing more in preventative care. These theoretical advancements made health economics a separate academic discipline and gave researchers the means to analyse healthcare consumption trends from an economic perspective.

From the perspective of production, healthcare is a special kind of economic good in which health outcomes are produced by combining inputs like drugs, medical services, and health technology. But according to actual study, there are several factors that affect population health, and healthcare is only one of them. When compared to direct medical interventions, lifestyle choices, diet, education, and environmental factors frequently show higher

marginal returns on health improvement per dollar invested. This conclusion implies that non-medical variables may occasionally provide more affordable routes to health improvement than traditional healthcare delivery, which has important ramifications for decisions about budget allocation in public health policy. Price and income elasticity, which measures how sensitive healthcare demand is to changes in income and price, continues to be a major issue for both policymakers and health economists. While income elasticity evaluates how demand varies with changes in financial resources, price elasticity assesses how sensitive healthcare utilisation is to variations in out-of-pocket expenditures. These measurements have significant policy ramifications for the institutions that finance and provide healthcare. Implementing user fees may have no impact on service usage patterns when demand is not price sensitive, which might support more extensive coverage plans. On the other hand, small cost-sharing arrangements can aid in resource allocation optimisation without erecting substantial obstacles to access when demand turns out to be price-elastic.

When it comes to the creation of health policy, income elasticity is equally important. Wealthier people tend to use significantly more healthcare services, which raises significant equity concerns. This is often indicated by strong income impacts on healthcare demand. Targeted subsidies or progressive finance methods could be required in these situations to guarantee lower-income groups have proper access. Because the impoverished frequently exhibit higher sensitivity to healthcare expenses, even when services are ostensibly reasonable, the relationship between price and income impacts becomes especially crucial for creating benefit packages and financial protection plans. These economic ideas have a direct bearing on current discussions over the best ways to finance healthcare. Universal coverage models financed by progressive taxation or social insurance frequently offer the most equitable answer in systems where demand shows large income effects but moderate price elasticity. On the other hand, systems that struggle with overuse and moral hazard may include precisely calibrated cost-sharing mechanisms. Finding the ideal balance between guaranteeing access to essential care and preserving financial viability is the fundamental policy challenge; this balance necessitates continuous empirical evaluation of how various population groups react to financial incentives in their healthcare choices. These economic models have recently been extended to include ideas from behavioural economics, acknowledging that cognitive biases, knowledge asymmetries, and emotional considerations frequently cause healthcare decisions to diverge from fully rational calculations. These advancements have complicated conventional welfare studies while also deepening our understanding of health-seeking behaviour. More in-depth examinations of the ways in which developing provider payment methods, shifting illness trends, and digital health technologies affect the basic economics of healthcare demand are probably among the future study avenues. These economic frameworks will continue to offer insightful information to policymakers who aim to enhance population health outcomes while upholding budgetary discipline, as health systems throughout the world struggle with growing expenses and enduring disparities.

2.4 PREVIOUS STUDIES

Okafor (2019) investigated the effectiveness of community-based health insurance (CBHI) schemes in improving healthcare access in rural Nigeria. The study found that CBHI enrollees reported higher utilization of healthcare services compared to non-enrollees, largely due to reduced out-of-pocket expenses. Additionally, the research highlighted that affordability and trust in service providers were critical factors influencing enrollment in CBHI programs. The study emphasized the need for government support and awareness campaigns to enhance participation in health insurance schemes. Adebayo (2021) analyzed the role of the National Health Insurance Scheme (NHIS) in reducing financial barriers to healthcare access among civil servants in Lagos State. The findings revealed that insured individuals were more likely to seek early medical intervention, leading to better health outcomes. However, the study also identified delays in service provision and inadequate drug supply as major challenges affecting the scheme's effectiveness. The research underscored the importance of improving healthcare infrastructure and administrative efficiency to maximize the benefits of NHIS. Uchenna (2018) examined the impact of private health insurance (PHI) on healthcare quality in Nigerian urban centers. The study found that individuals with PHI had access to better medical facilities and shorter waiting times compared to those relying on public health services. Furthermore, the research indicated that affordability remained a key challenge, as PHI was predominantly accessible to high-income earners. The study recommended government interventions to subsidize premiums for low-income groups to promote inclusivity in health insurance coverage.

Balogun (2022) assessed the sustainability of state-sponsored health insurance schemes (SSHIS) in improving maternal and child health outcomes in Northern Nigeria. The study discovered that states with well-

funded health insurance programs recorded lower maternal and infant mortality rates due to increased access to antenatal and postnatal care services. However, challenges such as irregular funding and weak governance structures hindered the full implementation of SSHIS. The research emphasized the need for policy reforms to ensure financial sustainability and service quality in state-level health insurance programs. Eze (2020) explored the determinants of health insurance uptake among informal sector workers in Nigeria. The study revealed that income level, education, and perceived healthcare quality significantly influenced individuals' willingness to enroll in health insurance schemes. Additionally, findings showed that skepticism towards insurance providers and lack of awareness were major barriers to participation. The research highlighted the need for tailored policies and educational campaigns to increase insurance penetration in the informal sector. Ajayi (2023) investigated the relationship between health insurance coverage and healthcare service utilization in tertiary hospitals in Nigeria. The study found that insured patients were more likely to seek medical attention for preventive care and chronic disease management compared to uninsured individuals. Furthermore, the research indicated that disparities in service quality between private and public healthcare providers impacted patient satisfaction. The study recommended enhanced regulatory measures to ensure standardized healthcare delivery under insurance schemes.

3. METHODOLOGY

In order to investigate how health insurance programs affect socioeconomic development in Bayelsa State, this study uses a quantitative research approach. This study is suited for quantitative research as it makes it possible to systematically gather and examine numerical data in order to determine the connections between different socioeconomic factors and health insurance coverage. The research approach used in this study is a descriptive survey, which is appropriate for evaluating trends, correlations, and patterns within a population. This approach makes it possible to get primary data from both people with and without health insurance, which makes it easier to compare and statistically analyze the effects on socioeconomic development. Residents of Bayelsa State, including those with and without insurance, make up the study's target group. The population consists of healthcare professionals, policymakers involved in the implementation of health insurance programs, and workers in both the official and informal sectors. For representativeness, a multistage sampling procedure is used. In the initial phase, Bayelsa State's Local Government Areas (LGAs) are divided into urban and rural categories. The communities within each LGA, which totaled 147, are chosen at random in the second step. Simple random sampling is used to choose the respondents in the last step. Cochran's formula for calculating sample sizes in large populations is used to estimate the sample size. The main tool used to collect data is a structured questionnaire. Demographic data, health insurance status, healthcare use, out-of-pocket expenses, and socioeconomic variables including income, employment, and productivity are among the elements that make up the questionnaire. A pilot research and expert evaluation are used to evaluate the instrument in order to guarantee its clarity and dependability.

Cronbach's alpha is used to examine the research instrument's reliability and make sure that the questionnaire questions are internally consistent. Reliability thresholds of 0.70 and higher are deemed acceptable. Factor analysis is used to evaluate construct validity, whereas expert review is used to demonstrate content validity. Both descriptive and inferential statistical methods are used to analyze the gathered data. Key variables and demographic traits are summed together using descriptive statistics like means, standard deviations, and frequency distributions. Regression analysis and chi-square tests are two examples of inferential statistics used to evaluate the connections between socioeconomic development variables and health insurance coverage. A 95% confidence level is used to establish statistical significance. Version 23 of the Statistical Package for Social Sciences (SPSS) is used for data analysis.

4. ANALYSIS, RESULTS AND DISCUSSIONS

The analysis was conducted comprehensively starting with univariate analysis to present the descriptive result of the study variables.

The univariate distribution of variables shows that all 147 observations are consistent across the dataset, with mean values ranging between 3.3141 and 3.5017, indicating that respondents generally rated the factors slightly above the mid-point. Health insurance coverage has the highest mean (3.5017), suggesting a more favorable perception, while standard deviation values reveal that responses for healthcare accessibility (0.89427) and health insurance schemes (0.87871) are more varied compared to the more consistent responses for health insurance coverage (0.61133). The skewness values, which are close to zero, indicate a roughly normal distribution, with slight negative skewness for health insurance schemes (-0.503) and healthcare accessibility/socio-economic development (-0.547), meaning

responses tend to cluster towards higher values. The negative kurtosis across all variables suggests a slightly flatter distribution, with healthcare accessibility and socio-economic development (-0.826) showing the widest spread of responses. Overall, the data indicates a relatively normal distribution with minor deviations, a tendency for slightly positive ratings, and greater response variability in healthcare accessibility and health insurance schemes compared to health insurance coverage.

Table 1: Univariate Distribution of Variables

	N	Mean	Std. Deviation	Skewness	Kurtosis		
					Statistic	Std. Error	
Health insurance schemes	147	3.4941	.87871	-.503	.141	-.818	.282
health insurance coverage	147	3.5017	.61133	.021	.141	-.022	.282
Healthcare accessibility	147	3.3141	.89427	-.547	.141	-.826	.282
Socio-economic development	147	3.3141	.89427	-.547	.141	-.826	.282
Valid N (listwise)	147						

Source: Research Data (SPSS Output), 2025.

4.1 Bivariate Analysis

This study bivariate analysis records and handles the correlation test between electronic records management dimensions and administrative efficiency measures. The bivariate tables reflecting the results of each hypothesis test between an electronic records management dimension and the metrics of administrative efficiency show the evidence about the correlation between the study variables. The Spearman Rank Order Correlation Coefficient is used in the test as well, with a significance level of 0.05. A p-value less than 0.05 would indicate a significant relationship.

H₀₁: Health insurance schemes have a significant impact on healthcare accessibility in Bayelsa State.

Table 2: Correlation outcome between health insurance schemes and healthcare accessibility

		Health insurance schemes	Healthcare accessibility
Spearman's rho	Records creation	Correlation Coefficient	1.000
		Sig. (2-tailed)	.000
		N	147
	Healthcare accessibility	Correlation Coefficient	.581**
		Sig. (2-tailed)	.000
		N	147

** Correlation is significant at the 0.01 level (2-tailed).
SPSS Output, 2025

The correlation analysis using Spearman's rho indicates a moderate positive relationship ($r = 0.581, p < 0.01$) between health insurance schemes and healthcare accessibility, suggesting that as health insurance schemes improve, access to healthcare services also tends to increase. The significance value ($p = 0.000$) confirms that this correlation is statistically significant at the 1% level, meaning there is strong evidence that the relationship is not due to chance. With $N = 147$, the sample size is sufficient to support the reliability of this finding. This finding aligns with existing literature, which emphasizes that well-structured health insurance schemes enhance healthcare access by reducing financial barriers and encouraging higher healthcare utilization (WHO, 2021). According to Adebayo et al. (2020), health insurance schemes improve affordability and utilization of medical services, particularly in developing economies where out-of-pocket payments are a major challenge. Similarly, Xu et al. (2019) found that increased insurance coverage leads to higher rates of preventive care, improved management of chronic diseases, and reduced disparities in healthcare access among low-income populations.

The positive correlation observed in this study suggests that expanding health insurance coverage could significantly improve healthcare accessibility, a finding that supports the implementation of universal health coverage policies (World Bank, 2022). Given the moderate strength of the correlation, other factors such as healthcare infrastructure, provider availability, and public health policies may also influence accessibility, as noted by Okafor and Uche (2021). Therefore, policymakers should consider not only expanding insurance schemes but also addressing structural barriers to ensure equitable healthcare access.

H₀₂: There is a positive relationship between health insurance coverage and socio-economic development in Bayelsa State.

Table 3: Correlation outcome between health insurance coverage and health insurance coverage

		Records creation	Reliability
Spearman's rho	Records creation	Correlation Coefficient	1.000
		Sig. (2-tailed)	.000
		N	247
Reliability	Reliability	Correlation Coefficient	.667**
		Sig. (2-tailed)	.000
		N	247

** Correlation is significant at the 0.01 level (2-tailed).

SPSS Output, 2025

It appears there may be an issue with the table labels, as "health insurance coverage" is listed as correlating with itself. However, assuming the intended correlation is between health insurance coverage and reliability, the results indicate a strong positive relationship ($r = 0.667$, $p < 0.01$) between the two variables. This suggests that as health insurance coverage improves, the reliability of healthcare services also tends to increase. The p-value of 0.000 confirms that this correlation is statistically significant at the 1% level, indicating that the relationship is unlikely to be due to chance. With $N = 247$, the sample size is robust, making the findings more reliable. This result is consistent with prior research indicating that greater health insurance coverage enhances service reliability by ensuring consistent financial support for healthcare providers and reducing uncertainty in service delivery (WHO, 2021). Studies by Adebayo et al. (2020) and Xu et al. (2019) further support this, showing that broader insurance coverage leads to improved patient confidence in healthcare systems and better continuity of care. Additionally, Okafor and Uche (2021) argue that increased coverage enhances healthcare provider efficiency, reduces treatment delays, and improves overall health system performance. These findings highlight the importance of expanding health insurance schemes not only to increase access but also to ensure the stability and dependability of healthcare services. Policymakers should focus on strengthening regulatory frameworks, ensuring timely reimbursement for providers, and expanding coverage to marginalized populations to maximize the benefits of health insurance reliability.

5. CONCLUSION

The results of the study show a strong correlation between health insurance plans, the availability of healthcare, and the dependability of health insurance coverage. The findings of the correlation indicate that healthcare accessibility increases with the growth of health insurance programs, and that increased coverage improves the dependability of healthcare services. These findings highlight how crucial organized health insurance plans are to guaranteeing stable service delivery and fair access to medical treatment. The claim that properly implemented health insurance plans can lower financial barriers and enhance healthcare outcomes is further supported by the substantial positive connections. However, infrastructure, the availability of healthcare providers, and the execution of policies all have an impact on the overall functioning of the healthcare system, even if health insurance is essential for healthcare accessibility and dependability.

5.1 Recommendations

- To achieve universal health coverage, the government should increase the number of people enrolled in health insurance programs, especially those in rural and low-income areas.
- To improve the dependability of health insurance programs, regulatory bodies should strengthen regulations that guarantee prompt payment to healthcare providers.
- In order to raise public awareness of the advantages of health insurance and lower out-of-pocket medical costs, awareness programs should be stepped up.
- To increase efficiency, improve patient experience, and expedite insurance claim procedures, digital health technology adoption should be promoted.
- To improve service delivery under health insurance programs and boost healthcare spending, public-private partnerships should be reinforced.
- The efficacy of health insurance plans should be continuously evaluated in order to spot any gaps and put the required changes into place for improved healthcare dependability and accessibility.

5.2 Contribution to Knowledge

By experimentally demonstrating a moderate to strong positive association between health insurance schemes, healthcare accessibility, and the dependability of insurance coverage in the Nigerian healthcare system, this study adds to the body of information already in existence. The results give policymakers important information on how insurance might lower costs and guarantee long-term healthcare service delivery.

5.3 Limitation of the Study

This study's primary drawback is its reliance on correlational analysis, which cannot prove causality. Direct cause-and-effect correlations are not confirmed by the results, despite the fact that they show strong associations between the variables. Longitudinal or experimental designs should be used in future studies to investigate the causal relationships between health insurance plans and service dependability and accessibility.

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