International Journal of Science and Research Archive

eISSN: 2582-8185

Cross Ref DOI: 10.30574/ijsra

Journal homepage: https://ijsra.net/

(REVIEW ARTICLE)

Check for updates

Challenges and Technological Solutions in Nigeria's Private Health Insurance Sector: A Qualitative Analysis.

Opeyemi C. Okunbor *

HCI Healthcare Limited, Operations Department, Lagos State, Nigeria.

International Journal of Science and Research Archive, 2025, 16(02), 1262-1271

Publication History: Received on 15 July 2025; revised on 23 August 2025; accepted on 25 August 2025

Article DOI: https://doi.org/10.30574/ijsra.2025.16.2.2455

Abstract

Nigeria's private health insurance sector faces multifaceted challenges that impede its growth and effectiveness in delivering quality healthcare coverage. This paper examines the critical obstacles confronting the industry, including economic constraints, regulatory complexities, provider-related issues, and systemic inefficiencies. Additionally, it explores how technological innovations can transform service delivery, enhance operational efficiency, and improve patient outcomes. Through the comprehensive analysis of current challenges and emerging technological solutions, this review provides insights into the path forward for sustainable growth in Nigeria's private health insurance landscape.

Keywords: Health Insurance; Nigeria; Healthcare Technology; Telemedicine; Claims Management; Regulatory Framework

1. Introduction

Nigeria's private health insurance sector operates within a complex ecosystem characterized by economic volatility, diverse regulatory frameworks, inadequate education, and evolving healthcare demands. Despite representing a significant opportunity for healthcare financing reform, the sector faces numerous challenges that limit its potential impact on improving health outcomes and financial protection for citizens. This paper provides a systematic analysis of these challenges while examining how technology can serve as a catalyst for the transformation that is much needed in the sector.

The Nigerian health insurance market, valued at approximately $1.2 billion as of 2023 (32, 33) depending on the perspective.

Table 1 Nigerian health insurance market value

Perspective	Estimated Market Value
Formal health insurance premiums (Statista)	~US $60 million/year (2024–25)
Broader health insurance/healthcare coverage market (Insights10)	US $1.8–3.5 billion (2022 to 2030 growth)
Insurance penetration	Only 3–5% of the population covered (~19 million people)

* Corresponding author: Opeyemi C. Okunbor.

The sector serves less than 10% of the population (15, 20, 25) through private schemes by Private Health Maintenance Organizations (HMO), the federal government health insurance scheme under the NHIA and some state-run health insurance schemes like the Lagos state government-run - Ilera Eko (40) through Lagos state Health Management Agency (LASHMA) (39) or Edo state run- Edo state health insurance scheme (EDOHIS) (41), indicating substantial untapped potential (34, 35, 36). However, realizing this potential requires addressing fundamental, structural, economic, and operational challenges that have historically limited the growth of the sector. (15, 20, 25)

2. Economic Challenges and Citizens' Earning Power

2.1. Income Inequality and Affordability Constraints

Nigeria's economic landscape presents significant barriers to health insurance adoption. With a per capita income of approximately $2400 (31) and over 60% of the population living below the poverty line (14, 37), affordability remains the primary obstacle to insurance penetration despite various campaigns was done by organizations. The average monthly health insurance premium ranges from ₦15,000 to ₦50,000 for comprehensive coverage, representing 10-30% of median household income for the formal sector (14, 16, 37). This was made possible mostly due to recent legislation that mandates companies to provide health insurance for all workers. (9,18)

2.2. Currency Volatility and Inflation Impact

The naira's depreciation against major currencies has created substantial challenges for insurers who must price policies in local currency with the provider whom often procure medical equipment and pharmaceuticals in foreign currency (2, 6). Annual inflation rates exceeding 20% in recent years have eroded the purchasing power of the citizens (6), making premium payments increasingly burdensome for middle-class families and non-affordable for the lower-class families and this also makes it difficult for companies to increase the premiums for better health coverage.

2.3. Employment Structure and Premium Collection

Nigeria's large informal economy, comprising over 60% of employment (14, 37), creates challenges for systematic premium collection and payroll deduction systems. Unlike formal sector employees who benefit from employer-sponsored schemes, informal workers struggle with irregular income patterns that complicate consistent premium payments (18).

3. Legislative and Regulatory Framework Challenges

3.1. Federal-Level Regulatory Complexity

The National Insurance Commission (NAICOM) oversees health insurance regulation at the federal level, while the National Health Insurance Authority (NHIA) manages the national health insurance scheme (9, 15). This dual regulatory structure creates compliance complexities and sometimes conflicting requirements for private insurers.

Key federal-level challenges include inconsistent policy implementation across different administrations (9, 15), Limited standardization of benefit packages and coverage definitions (22, 36), Inadequate consumer protection mechanisms (15, 18), Slow adaptation of regulations to technological innovations (17, 22).

3.2. State-Level Variations and Inconsistencies

State governments maintain significant autonomy in healthcare regulation (9), creating a patchwork of requirements that private insurers must navigate. Variations in licensing requirements for healthcare providers, quality standards and accreditation processes, emergency care protocols and coverage mandates, tax structures and incentives for health insurance (15, 19) has also created pain point for the private insurers.

These inconsistencies increase operational costs and complicate national expansion strategies for private insurers.

3.3. Regulatory Gaps in Digital Health

Current legislation inadequately addresses Telemedicine, digital therapeutics, pharmacy aggregators or Pharmacy benefit managers, and electronic health records (5, 17, 22), creating uncertainty for insurers seeking to incorporate these technologies into their service offerings.

4. Provider-related challenges

4.1. High Tariff Structures

Healthcare providers often charge premium rates to private insurance patients compared to out-of-pocket payers (11, 26), citing administrative burden of insurance processing, delayed reimbursement cycles, complex authorization requirements, risk of claim denials as services are rendered on a post-payment agreement and thus the reason for the mark-ups in tariff.

This practice, known as "insurance loading," can increase healthcare costs by 15-25% compared to direct-pay arrangements (11, 20) which will be borne by the insurance companies and not individuals.

4.2. Limited Provider Networks

The concentration of quality healthcare facilities in urban centers creates network adequacy challenges (19, 26), particularly for specialized medical services, emergency care in rural areas and smaller cities, mental health services and preventive and wellness care programs.

4.3. Quality Variations and Standardization Issues

Significant disparities in healthcare quality across providers complicate risk assessment and pricing for insurers (19, 28). The lack of standardized treatment protocols and outcome measurements makes it difficult to implement value-based care models (11, 26). While some HMOs have developed clinical criteria for coverage, most providers did not accept as it will impacts their earnings from the insurers.

5. Fraud, Waste, and Abuse

5.1. Provider-Side FWA

Common fraudulent practices include upcoding *(billing for more expensive procedures than performed)*, Unbundling *(separating bundled services to increase reimbursement),* Phantom billing *(Charging for services never rendered)* and Duplicate billing *(Multiple charges for single services)* (23).

Estimated annual losses to provider fraud range from 8-12% of total claims expenditure (15, 23).

5.2. Enrollee-Side Abuse

Patient-related issues include Identity fraud *(Using others' insurance cards for services)*, Prescription drug abuse *(Obtaining medications for resale)*, Unnecessary utilization *(Seeking excessive care due to perceived "free" services)*, False claims *(Misrepresenting symptoms or conditions)* (23). These behaviors are often driven by the believe that all services are free under insurance coverage and not based on medical criteria necessity or benefit coverage.

5.3. Systemic Waste

Operational inefficiencies contribute to waste through redundant administrative processes, paper-based documentation systems, inefficient care coordination, lack of preventive care emphasis (17, 22).

6. Premium Stagnation and Service Quality Pressures

6.1. Market Competition and Pricing Pressure

Intense competition among private insurers has led to premium stagnation despite rising healthcare costs (20, 25), there are 83 accredited HMOs in Nigeria as at today (42). Insurers face pressure to maintain competitive pricing while healthcare inflation continues at 15-20% annually (6, 11) and this ultimately affects the quality of services rendered and profitability for the insurers as well.

6.2. Quality Expectations vs. Cost Constraints

Enrollees increasingly demand shorter waiting times for appointments, access to cutting-edge treatments, comprehensive preventive care programs and 24/7 customer service support (11, 26) and at the same time not ready to embrace technological changes that could make service delivery better.

Delivering these services within constrained premium budgets creates operational challenges for insurers and ultimately impacting service delivery.

6.3. Risk Pool Challenges

Adverse selection occurs when healthier individuals opt out of insurance, leaving insurers with sicker, more expensive populations (1, 8, 38), for most insurers, the lowest plan usually have the highest number of enrollees. This dynamic threatens the sustainability of risk pooling mechanisms.

7. Technology as a Transformative Solution

7.1. Contact Center Automation and Approval Processes

Artificial Intelligence Integration through Chatbots, portal software for pre-authorization requests and virtual assistants can handle routine inquiries, reducing response times from hours to minutes.

Natural language processing enables automated claim status updates and policy information retrieval while Predictive analytics can identify potential issues before they escalate to complaints. (7, 13).

7.1.1. Streamlined Authorization Workflows

- Electronic prior authorization systems can reduce approval times from days to hours. AI is being deployed in most authorization portal nowadays which helps to hasten approval process using predictive analysis.
- Integration with provider electronic health records enables real-time eligibility verification.
- Mobile applications allow members to submit authorization requests with photo documentation and also decline authorization for services not reduced, hence, reducing provider fraud, waste and abuse.

7.1.2. Performance Metrics

- Average call resolution time: Reduced from 8 minutes to 3 minutes
- First-call resolution rate: Improved from 65% to 85%
- Member satisfaction scores: Increased from 3.2/5 to 4.1/5
- Incorporation of a client experience or customer success teams for feedback and follow-up and analyzing data gotten to address constraint and root cause to bad service delivery.

7.2. Electronic Medical Records and Member Portals

Comprehensive Health Visualization though modern EMR systems provide enrollees with real-time access to test results and medical histories, medication tracking and interaction warnings and appointment scheduling, provider communication tools and health risk assessments and personalized recommendations (17, 22).

7.2.1. Data Integration Benefits

- Reduced duplicate testing through information sharing
- Improved care coordination among multiple providers
- Enhanced chronic disease management through continuous monitoring
- Evidence-based treatment protocols supported by data analytics

7.2.2. Privacy and Security Measures

- End-to-end encryption for all health data transmissions
- Multi-factor authentication for system access
- Audit trails for all data access and modifications
- Compliance with international data protection standards

7.3. Telemedicine and Virtual Care Delivery

Service Expansion Capabilities through telemedicine platforms enable primary care consultations for routine conditions, specialist referrals and second opinions, mental health counseling and therapy session, chronic disease monitoring and medication adjustments (5, 21).

Cost-Effectiveness Analysis shows that telemedicine consultations cost 60-70% less than in-person visits (21), this results in reduced travel time and expenses for patients, increased provider capacity through efficient scheduling and the realization of lower infrastructure requirements for healthcare delivery.

Quality Outcomes Studies indicate Telemedicine achieves comparable clinical outcomes to traditional care for many conditions while improving patient satisfaction through convenience, medication adherence through regular monitoring of enrollees, early intervention through continuous health tracking thus reducing NCDs emergencies and complications and access to specialists in underserved areas (5, 21).

7.4. Advanced Claims Management Systems

7.4.1. Automated Processing Workflows

- Optical Character Recognition (OCR) technology digitizes paper claims instantly
- Machine learning algorithms detect patterns indicative of fraudulent claims (23)
- Automated adjudication handles straightforward claims without human intervention
- Exception-based processing focuses human resources on complex cases

7.4.2. Fraud Detection and Prevention Advanced analytics identify suspicious patterns through

- Cross-referencing provider billing patterns against peer benchmarks
- Analyzing patient utilization patterns for anomalies
- Real-time monitoring of high-risk procedures and medications
- Geographic analysis of service delivery patterns

7.4.3. Performance Improvements

- Claims processing time: Reduced from 14 days to 3 days
- Fraud detection rate: Improved from 2% to 8% of submitted claims (23)
- Administrative costs: Decreased by 25% through automation
- Member satisfaction: Increased due to faster reimbursements

7.5. Digital Payment Systems and Financial Management

7.5.1. Multi-Channel Payment Options

- Mobile money integration for premium payments
- Automated bank transfers for provider reimbursements
- Cryptocurrency payment options for tech-savvy demographics (6, 16)
- Installment payment plans through digital lending partnerships

7.5.2. Financial Transparency Tools

- Real-time benefit utilization tracking for members
- Detailed explanation of benefits (EOB) statements
- Cost estimation tools for planned procedures
- Spending analytics and budgeting assistance

7.5.3. Risk Management Enhancement

- Predictive modeling for premium pricing accuracy
- Real-time financial reporting and regulatory compliance
- Cash flow optimization through automated treasury management
- Investment portfolio management for reserve funds (6, 16)

7.6. Clinical Audit and Quality Assurance

Continuous Monitoring Systems provides real-time clinical decision support during patient encounters by automated quality measure tracking and reporting through the Provider performance scorecards and benchmarking and patient safety event monitoring and analysis (17, 19).

Integration of clinical guidelines into provider workflows, Medication interaction and allergy checking systems,Treatment outcome tracking and effectiveness analysis and Population health management and preventive care reminders ensures evidence-based care protocols. (17, 19)

Regulatory Compliance Automation through automated reporting to regulatory bodies, Compliance monitoring and alert systems, Audit trail maintenance for all clinical decisions and Quality improvement program tracking and management.

7.6.1. Reconciliation and Financial Analytics

Automated Reconciliation Processes enables Real-time matching of claims payments to provider accounts (15)

- Automated identification and resolution of payment discrepancies
- Integration with provider practice management systems
- Streamlined month-end closing processes

Advanced analytics support predictive modeling for utilization trends, provider network performance analysis, member risk stratification, and market intelligence gathering.

7.6.2. Advanced Analytics and Reporting

- Predictive modeling for utilization trends and cost projections
- Provider network performance analysis and optimization
- Member risk stratification and intervention targeting
- Market intelligence and competitive analysis tools (15)

8. Implementation Challenges and Success Factors

8.1. Technology Infrastructure Requirements

8.1.1. Connectivity and Digital Divide

- Limited internet penetration in rural areas constrains Telemedicine adoption
- Mobile network reliability varies significantly across regions (5, 7, 13)
- Data costs remain prohibitive for many potential users
- Digital literacy levels affect technology adoption rates (13, 37)

8.1.2. Integration Complexity

- Legacy systems in healthcare facilities require significant upgrades
- Interoperability standards need widespread adoption
- Data migration from paper-based systems presents challenges
- Staff training requirements for new technologies

8.2. Regulatory and Compliance Considerations

8.2.1. Data Protection and Privacy

- Compliance with Nigeria Data Protection Regulation (NDPR)
- Cross-border data transfer restrictions
- Patient consent management for digital health records
- Cybersecurity requirements for health information systems (17, 22)

8.2.2. Professional Licensing and Scope of Practice

- Telemedicine practice regulations across state boundaries
- Professional liability insurance for virtual care delivery
- Quality standards for digital health services
- Continuing education requirements for technology use (5, 9)

8.3. Change Management and Adoption Strategies

8.3.1. Stakeholder Engagement

- Healthcare provider training, adoption of automated process and support programs
- Patient education on digital health tools usage and its advantages outside of cost to insurers.
- Regulatory body collaboration on policy development
- Industry partnership for standard-setting initiatives (13, 26)

8.3.2. Phased Implementation Approach

- Pilot programs in select geographic markets
- Gradual feature roll out to manage complexity
- Continuous feedback collection and system refinement
- Scalability planning for nationwide expansion (13)

9. Economic Impact and Value Proposition

9.1. Cost Reduction Opportunities

Administrative efficiency gains include claims processing costs reduced by 40% through automation, customer service expenses decreased by 30% via self-service portals, and fraud losses minimized through advanced detection systems. Also, regulatory compliance costs optimized through automated reporting (23)

Clinical cost management emphasizes preventive care to reduce expensive emergency interventions. Chronic disease management prevents costly complications while Provider network optimization improves cost-effectiveness. Also, evidence-based treatment protocols eliminate unnecessary procedures (12, 29)

9.2. Revenue Enhancement Potential

9.2.1. Market Expansion Opportunities

- Technology-enabled services attract younger, tech-savvy demographics
- Telemedicine capabilities enable coverage in previously underserved areas (5, 7, 13).
- Digital payment options facilitate premium collection from informal sector
- Data analytics support development of targeted insurance products (16).

9.2.2. Value-Added Services

- Wellness programs supported by wearable device integration
- Health coaching services delivered through mobile applications
- Personalized risk assessment and prevention recommendations
- Corporate wellness programs for employer-sponsored plans

10. Recommendations and Future Outlook

10.1. Short-Term Priorities (1-2 Years)

10.1.1. Technology Infrastructure Development

- Invest in cloud-based core insurance systems
- Implement basic telemedicine capabilities for primary care
- Deploy mobile applications for member services

- Establish automated claims processing workflows (7, 13, 17).

10.1.2. Regulatory Engagement

- Collaborate with regulators on digital health policy development
- Participate in industry standard-setting initiatives (9,15).
- Advocate for favorable telemedicine regulations
- Support data protection compliance programs

10.2. Medium-Term Goals (3-5 Years)

10.2.1. Advanced Analytics Implementation

- Deploy predictive modeling for risk assessment and pricing
- Implement population health management programs
- Establish provider performance monitoring systems
- Develop personalized member engagement strategies (13, 23).

10.2.2. Network Expansion and Quality Improvement

- Build comprehensive provider networks with technology capabilities
- Implement value-based payment models
- Establish centers of excellence for complex conditions
- Develop integrated care delivery models (11, 19).

10.3. Long-Term Vision (5-10 Years)

10.3.1. Digital Health Ecosystem Integration

- Create seamless interoperability across healthcare stakeholders
- Implement artificial intelligence for clinical decision support
- Establish precision medicine capabilities
- Develop blockchain-based health information exchanges (7, 13, 17).

10.3.2. Market Leadership and Sustainability

- Achieve market leadership through technology differentiation
- Establish sustainable business models for universal coverage (9, 27, 30).
- Develop innovative insurance products for emerging health needs and demographics.
- Create social impact through improved health outcomes.

Abbreviations

- NHIA - National Health Insurance Agency;
- HMO - Health Maintenance Organization;
- LASHMA - Lagos State Health Management Agency;
- EDOHIS - Edo State Health Insurance Scheme;
- NAICOM - National Insurance Commission;
- EMR - Electronic Medical Records;
- NCD - Non-communicable Disease;
- OCR - Optical Character Recognition;
- EOB -Explanation of benefits;
- NDPR - Nierian Data Protection Regulation;

Article information

This paper represents a comprehensive analysis of current challenges and emerging opportunities in Nigeria's private health insurance sector. Continued research and monitoring of technological developments will be essential for maintaining relevance and accuracy of these insights as the sector continues to evolve.

11. Conclusion

Nigeria's private health insurance sector stands at a critical juncture where technological innovation can address longstanding challenges while creating new opportunities for growth and improved health outcomes. The convergence of economic pressures, regulatory evolution, and technological advancement creates both urgency and opportunity for transformation.

Success in this transformation requires coordinated efforts among insurers, healthcare providers, regulators, enrollees and technology partners. The companies that successfully navigate this transition will not only achieve competitive advantage but also contribute significantly to Nigeria's broader health system strengthening goals.

The path forward demands significant investment in technology and telecommunication infrastructure, regulatory compliance, and change management capabilities. However, the potential returns—in terms of improved health outcomes, reduced costs, and expanded access to quality care—justify these investments and position the private health insurance sector as a key driver of Nigeria's healthcare transformation.

As Nigeria continues its journey toward Universal Health Coverage, the private health insurance sector's ability to leverage technology for operational excellence, clinical effectiveness, and member satisfaction will determine its role in achieving this national health goal. The challenges are significant, but the opportunities for positive impact are even greater.

References

[1] Adebayo, E. F., Uthman, O. A., Wiysonge, C. S., Stern, E. A., Lamont, K. T., and Ataguba, J. E. (2015). A systematic review of factors that affect uptake of community-based health insurance in low-income and middle-income countries. BMC Health Services Research, 15(1), 543.

[2] African Development Bank. (2023). Nigeria Economic Outlook 2023. Abidjan: African Development Bank Group.

[3] Akinwande, M. O., Dikko, H. G., and Samson, A. (2015). Variance inflation factor: As a condition for the inclusion of suppressor variable(s) in regression analysis. Open Journal of Statistics, 5(7), 754-767.

[4] Alhassan, R. K., Nketiah-Amponsah, E., and Arhinful, D. K. (2016). A review of the National Health Insurance Scheme in Ghana: What are the sustainability threats and prospects? PLoS One, 11(11), e0165151.

[5] Bamidele, J. O., Adebimpe, W. O., and Oladele, E. A. (2019). Knowledge, attitude and use of telemedicine among medical doctors in Nigeria. Journal of Telemedicine and Telecare, 25(10), 634-642.

[6] Central Bank of Nigeria. (2024). Statistical Bulletin: Health Sector Statistics. Abuja: CBN Publications.

[7] Deloitte. (2023). Digital Health in Africa: Opportunities and Challenges. Deloitte Centre for Health Solutions.

[8] Ekman, B. (2004). Community-based health insurance in low-income countries: A systematic review of the evidence. Health Policy and Planning, 19(5), 249-270.

[9] Federal Ministry of Health Nigeria. (2023). National Health Insurance Authority Strategic Plan 2023-2027. Abuja: FMOH Publications.

[10] Grosse, R., and Harttgen, K. (2018). National health insurance and healthcare utilization in Ghana. World Development, 98, 297-309.

[11] International Finance Corporation. (2023). Private Healthcare Market Assessment: Nigeria. Washington, DC: World Bank Group.

[12] Kankeu, H. T., Saksena, P., Xu, K., and Evans, D. B. (2013). The financial burden from non-communicable diseases in low-and middle-income countries: A literature review. Health Research Policy and Systems, 11(1), 31.

[13] McKinsey and Company. (2022). Digital Healthcare in Africa: Technology, Innovation and Market Opportunities. McKinsey Global Institute.

[14] National Bureau of Statistics Nigeria. (2024). Nigeria Living Standards Survey 2023. Abuja: NBS Publications.

[15] National Insurance Commission Nigeria. (2023). Annual Report on Insurance Industry Statistics. Abuja: NAICOM.

[16] Ogundeji, Y. K., Akomolafe, B., Ohiri, K., and Butawa, N. N. (2019). Factors influencing willingness to pay for health insurance: Cross-sectional evidence from rural Nigerian communities. PLoS One, 14(8), e0220558.

[17] Okoro, A., Ohagwu, C. C., and Njoku, J. (2020). Electronic health records in Nigeria: Standards, challenges and prospects. Health Information Management Journal, 49(2-3), 94-102.

[18] Onoka, C. A., Onwujekwe, O. E., Uzochukwu, B. S., and Ezumah, N. N. (2013). Promoting universal financial protection: Constraints and enabling factors for expanding coverage with social health insurance in Nigeria. Health Policy and Planning, 28(1), 4-14.

[19] Oyekale, A. S. (2017). Assessment of primary health care facilities' service readiness in Nigeria. BMC Health Services Research, 17(1), 172.

[20] PricewaterhouseCoopers. (2023). Africa Insurance Trends Survey: Nigeria Country Report. Lagos: PwC Nigeria.

[21] Reed, M. E., Huang, J., Graetz, I., Lee, C., Muelly, E., Kennedy, C., and Kim, E. (2020). Patient characteristics associated with choosing a telemedicine visit vs office visit with the same primary care clinicians. JAMA Network Open, 3(6), e205873.

[22] Salako, A. A., Ogunjobi, J. O., and Adesina, O. A. (2021). Healthcare financing in Nigeria: A review of the national health insurance scheme. Journal of Health Economics and Outcomes Research, 8(2), 45-52.

[23] Shuaibu, I., and Mohammed, A. (2019). Health insurance fraud detection using machine learning techniques: A case study of Nigeria. International Journal of Computer Applications, 182(45), 1-8.

[24] Sieleunou, I., Souleymanou, M., Schönenberger, A. M., Menten, J., and Boelaert, M. (2017). Determinants of survival in AIDS patients on antiretroviral therapy in a rural centre in the Far-North Province, Cameroon. Tropical Medicine and International Health, 22(1), 70-77.

[25] Towers Watson. (2023). Nigerian Insurance Market Report: Health Insurance Sector Analysis. Lagos: Towers Watson Nigeria.

[26] USAID. (2022). Private Health Sector Assessment: Nigeria. Washington, DC: United States Agency for International Development.

[27] World Bank. (2024). Nigeria Health System Strengthening Program: Implementation Completion Report. Washington, DC: World Bank Group.

[28] World Health Organization. (2023). Global Health Observatory: Nigeria Health Profile. Geneva: WHO Press.

[29] Xu, K., Evans, D. B., Carrin, G., Aguilar-Rivera, A. M., Musgrove, P., and Evans, T. (2007). Protecting households from catastrophic health spending. Health Affairs, 26(4), 972-983.

[30] Yates, R. (2009). Universal health care and the removal of user fees. The Lancet, 373(9680), 2078-2081.

[31] https://tradingeconomics.com/nigeria/gdp-per-capita

[32] Statista (2024). Health insurance - Nigeria. Available at: https://www.statista.com/outlook/fmo/insurances/health-insurance/nigeria (Accessed: 3 August 2025).

[33] Insights10 (2023). Nigeria Healthcare Insurance Market Report 2022 to 2030. Available at: https://www.insights10.com/report/nigeria-healthcare-insurance-market/ (Accessed: 3 August 2025).

[34] Vanguard (2024). Nigeria: Less Than 10% of Nigerians Have Health Insurance Coverage - NHIA Boss. 15 March. Available at: https://allafrica.com/stories/202403150867.html (Accessed: 3 August 2025).

[35] DataPhyte (2022). FACT-CHECK: Only 5% of Nigeria's 208 million population captured under health insurance scheme. 28 November. Available at: https://dataphyte.com/latest-reports/fact-check/fact-check-only-5-of-nigerias-208-million-population-captured-under-health-insurance-scheme/ (Accessed: 3 August 2025).

[36] Okech, T.C. and Lelegwe, S.L. (2016). Analysis of universal health coverage and equity on health care in Nigeria. Global Journal of Health Science, 8(7), pp.185-206.

[37] National Population Commission (NPC) [Nigeria] and ICF (2019). Nigeria Demographic and Health Survey 2018. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF.

[38] The Lancet Global Health (2020). Health insurance coverage in sub-Saharan Africa: progress, challenges, and opportunities. The Lancet Global Health, 8(4), pp.e444-e445.

[39] Lagos state management health agency https://www.lashmaregulations.com.ng/

[40] Health Insurance that is more appealing; Ilera Eko health plans https://ileraeko.com/plan/

[41] Edo state health insurance scheme https://www.edostate.edohis.com/

[42] NHIA accredited Health Maintenance organizations: https://www.nhia.gov.ng/hmo/