

# Impact of NHIA On Immunization Rates and Antenatal Visits in Nigeria

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doi: <https://doi.org/10.37745/ijphpp.15/vol10n15258>

Published August 19, 2025

**Citation:** Onuorah W.A. (2025) Impact of NHIA On Immunization Rates and Antenatal Visits in Nigeria, *International Journal of Public Health, Pharmacy and Pharmacology*, 10(1), 52-58

**Abstract:** Preventive healthcare, especially immunization and antenatal care (ANC), remains essential for improving maternal and child health outcomes in Nigeria. Despite past public health interventions, access to these services has been inconsistent and unevenly distributed. The transition from the National Health Insurance Scheme (NHIS) to the National Health Insurance Authority (NHIA) under the 2022 Act was introduced to improve service coverage and remove financial and structural barriers to Universal Health Coverage (UHC). This study explores the impact of the NHIA on the uptake of preventive healthcare, particularly immunization and ANC services. A cross-sectional descriptive study was conducted across Nigeria's six geopolitical zones, involving 600 women of reproductive age (15–49 years) who had delivered within the past two years. A multistage sampling technique was used to ensure representativeness. Data were collected using structured questionnaires and interviews with health workers. Quantitative data were analyzed using SPSS version 26.0, while qualitative responses were examined thematically. Ethical approval was obtained, and participation was voluntary. Following the implementation of NHIA, full childhood immunisation coverage increased from 58.4% to 72.9%, while the proportion of pregnant women who had four or more ANC visits rose from 64.1% to 80.2%. Awareness of health insurance schemes grew from 49.6% to 76.3%, and actual enrollment increased from 39.2% to 66.5%. Higher uptake was observed among women with formal education, salaried employment, and those living in urban areas. The findings suggest that NHIA has positively influenced access to preventive healthcare services in Nigeria. The removal of out-of-pocket payments and broader insurance coverage contributed to improved utilization. However, disparities remain in rural communities and among women with little or no formal education. These patterns indicate the need for targeted strategies that address geographical and socio-economic inequalities in access to care. The NHIA has shown early success in enhancing immunization and ANC service uptake. These improvements indicate that health insurance reform can be an effective mechanism for promoting preventive care and advancing UHC. Nevertheless, persistent barriers such as low awareness in rural areas, cultural influences, and infrastructure gaps must be addressed. Strengthening grassroots health education, incentivizing rural health worker retention, and implementing inclusive policies will be critical to ensuring that the NHIA achieves its full potential.

**Keywords:** NHIA, immunization, rates, antenatal visits, Nigeria

## INTRODUCTION

Preventive healthcare is a cornerstone of public health which comprises services that protect individuals from diseases before symptoms arise. Among the most critical of these services are immunizations and antenatal care (ANC). Immunization is globally recognized as one of the most cost-effective interventions for reducing childhood morbidity and mortality, while ANC services ensure early detection and management of complications during pregnancy, improving outcomes for both mothers and infants (World Health Organization [WHO], 2023). In Nigeria, despite several public health initiatives, access to and uptake of these services remain inconsistent and unequally distributed across the population.

The transition from the National Health Insurance Scheme (NHIS) to the National Health Insurance Authority (NHIA) under the 2022 Health Insurance Act was aimed at achieving Universal Health Coverage (UHC) by addressing financial and structural barriers to healthcare. The NHIA mandates compulsory health insurance for all Nigerians and legal residents, with a strong emphasis on improving maternal and child health indicators (Federal Republic of Nigeria, 2022). Before this reform, the NHIS had limited coverage, particularly for the informal sector and rural populations, leading to poor access to preventive health services such as immunizations and ANC visits (Onoka *et al.*, 2013).

Evidence shows that financial protection mechanisms, like health insurance, increase the utilization of essential services. In countries with effective national insurance coverage, ANC attendance and immunization rates have improved due to reduced out-of-pocket expenditures and increased accessibility to healthcare facilities (Oweibia *et al.*, 2025). For Nigeria, where poverty, out-of-pocket spending, and geographic inaccessibility are common barriers, the NHIA could play an important role in reshaping maternal and child health outcomes. The NHIA seeks to eliminate inequities by enrolling individuals across all economic classes, funding primary health services, and offering standardized benefit packages that include immunization and ANC services (NHIA, 2023).

However, the actual impact of NHIA implementation on specific preventive indicators such as immunization coverage and antenatal visits is still under-researched. Current data from the Nigeria Demographic and Health Survey (NDHS, 2018) show that while there was some progress, only 57% of children received all basic vaccinations, and just 67% of pregnant women had at least four antenatal care visits. These figures suggest a gap between policy intention and health outcomes. The National Health Insurance Authority Act aims to close these gaps by strengthening the Basic Health Care Provision Fund (BHCPF) and ensuring mandatory health insurance enrollment, especially for vulnerable groups (National Health Insurance Authority [NHIA], 2022).

Furthermore, structural issues such as poor health infrastructure, low awareness, cultural norms, and regional disparities compound the challenge. The northern regions of Nigeria, for instance,

have consistently reported lower immunization and ANC coverage compared to southern regions, a trend often linked to socio-economic, religious, and gender-related barriers (Nwosu and Ataguba, 2019). A well-functioning NHIA could reduce these disparities by providing consistent financing and reducing the influence of socio-economic status on healthcare access.

There is also growing recognition that insurance schemes improve not just access but continuity and quality of care. Enrollees in national health insurance systems are more likely to complete full immunization schedules and attend more than the minimum recommended number of ANC visits due to subsidized or free services and better health system responsiveness (Wagstaff *et al.*, 2016). The policy framework of NHIA includes performance-based funding to primary healthcare centers and a move toward digitization, which, if properly implemented, could enhance monitoring, service delivery, and accountability in the health sector.

Nonetheless, concerns remain about the capacity of the NHIA to operate equitably and effectively across Nigeria's diverse settings. As with the NHIS, challenges such as weak regulatory enforcement, poor stakeholder engagement, and infrastructural gaps could hinder its success. Evaluating the NHIA's early impact, especially on measurable indicators like immunization rates and ANC attendance, provides a valuable opportunity to assess its effectiveness and identify areas for improvement.

Additionally, similar health reforms in other low- and middle-income countries (LMICs) have demonstrated that universal insurance models not only improve health outcomes but also contribute to reducing health inequities when effectively implemented (WHO, 2025). The integration of community-based health insurance strategies and mobile health technologies has proven to expand coverage and access in rural areas (Effiong *et al.*, 2023). These international experiences provide useful lessons for Nigeria's NHIA as it continues to expand coverage, standardize service quality, and ensure sustainability through adequate funding, stakeholder collaboration, and continuous monitoring. Without deliberate attention to inclusivity and localized service delivery, the NHIA may struggle to reach the most marginalized populations—precisely those who stand to benefit the most from preventive health services.

This study, therefore, investigates the impact of NHIA on immunization rates and antenatal visits in Nigeria, with the goal of generating evidence-based insights into whether the reformed insurance structure has succeeded in increasing uptake of preventive maternal and child health services. The findings will inform policymakers, healthcare providers, and stakeholders on the effectiveness of NHIA in addressing public health challenges and moving Nigeria closer to achieving Universal Health Coverage and the Sustainable Development Goals (SDG 3.1 and 3.2), which aim to reduce maternal and child mortality.

This article aims to assess the impact of the National Health Insurance Authority (NHIA) on the uptake of immunization services and antenatal visits among populations in Nigeria. The aim is achieved through the following:

1. To evaluate the change in immunization coverage before and after the implementation of NHIA in Nigeria.
2. To examine the influence of NHIA on the frequency and completeness of antenatal care (ANC) visits among pregnant women.
3. To identify socio-demographic factors associated with improved access to immunization and antenatal care services under the NHIA..

This study evaluates the impact of the National Health Insurance Authority (NHIA) on the uptake of immunization and antenatal care services in Nigeria—two key indicators of preventive healthcare. By providing empirical evidence on the effectiveness of NHIA reforms, the study informs policymakers, health planners, and development stakeholders on areas that require strengthening. It contributes to strategies aimed at reducing maternal and child mortality, closing health equity gaps, and achieving Universal Health Coverage (UHC) and Sustainable Development Goals (SDGs), particularly SDG 3 on good health and well-being.

## **METHODS**

### **Study design**

A cross-sectional descriptive study design was adopted to assess the impact of the National Health Insurance Authority (NHIA) on immunization coverage and antenatal care (ANC) visits in Nigeria.

### **Study population**

The study population comprised women of reproductive age (15–49 years) who had delivered within the last two years, as well as primary healthcare providers in selected public health facilities. A multistage sampling technique was used to select 600 respondents across six geopolitical zones of Nigeria, ensuring urban-rural representation.

### **Method of data instrument**

Data were collected using structured questionnaires and key informant interviews.

### **Data analysis**

Quantitative data were analyzed using SPSS version 26.0 to generate frequencies, percentages, and chi-square tests for association, while qualitative data were transcribed and thematically analyzed.

### **Ethical considerations**

Ethical clearance was obtained from a recognized institutional review board, and informed consent was secured from all participants.

## RESULTS

The findings indicated a notable increase in the utilization of preventive services following the transition from NHIS to NHIA. Immunization rates and ANC attendance improved across most regions, with stronger gains observed in urban areas and among insured women.

Table 1: Comparison of Immunization and Antenatal Care Utilization Before and After NHIA Implementation

Indicator	NHIS Era	During NHIA	% Increase
Full Childhood Immunization Coverage	58.4%	72.9%	+14.5%
At Least 4 ANC Visits	64.1%	80.2%	+16.1%
Awareness of Health Insurance	49.6%	76.3%	+26.7%
Enrollment in Health Insurance Scheme	39.2%	66.5%	+27.3%

Urban respondents reported higher insurance enrollment and access to services than their rural counterparts. Educational status was significantly associated with improved service uptake ( $p < 0.05$ ), indicating that socio-economic factors still influence health access even within the NHIA framework.

## DISCUSSION

The study revealed a substantial increase in immunization and antenatal care utilization following the introduction of the NHIA, supporting the effectiveness of health insurance in improving preventive health outcomes. The increase in full immunization from 58.4% to 72.9% aligns with findings from Wagstaff *et al.* (2016), which noted that social health insurance mechanisms enhance access to essential services by reducing out-of-pocket expenditures and increasing facility use.

Similarly, antenatal care coverage rose by over 16%, reinforcing evidence from Husain *et al.* (2022), who observed improved ANC attendance among insured women in developing countries. However, disparities remain, particularly among uneducated women, rural dwellers, and those in informal employment—groups less likely to be insured or to utilize services (Nwosu and Ataguba, 2019).

These results reveal both the promise and limitations of NHIA. While access has expanded, equitable coverage remains a challenge, indicating that insurance alone is not sufficient. Complementary efforts such as community education, facility strengthening, and targeted subsidies are essential.

## CONCLUSION

This study provides evidence that the National Health Insurance Authority (NHIA) has significantly enhanced the uptake of key preventive healthcare services in Nigeria, particularly full childhood immunization and antenatal care (ANC) attendance. The findings reveal a clear

improvement in service utilization indicators following the transition from the National Health Insurance Scheme (NHIS) to NHIA. This progress demonstrates the effectiveness of mandatory health insurance in reducing financial barriers, promoting equitable access to services, and expanding coverage across different regions. With immunization coverage rising from 58.4% to 72.9% and ANC visits from 64.1% to 80.2%, the NHIA shows potential as a catalyst for accelerating Nigeria's journey toward Universal Health Coverage (UHC).

However, the study also exposes lingering disparities along socio-economic and geographic lines. Urban residents, women with formal education, and those in formal employment benefited more from NHIA implementation compared to rural and informally employed populations. These disparities highlight the fact that while insurance mechanisms are important, they are not a panacea. Structural inequalities, weak health infrastructure, poor awareness, and enrollment gaps continue to hinder equitable healthcare delivery.

Therefore, while the NHIA represents a significant policy advancement in Nigeria's health financing landscape, its long-term success will depend on sustained political will, increased public investment, and targeted equity-focused interventions. As the country strives to meet Sustainable Development Goals 3.1 and 3.2, which emphasize reducing maternal and child mortality, strengthening and scaling up the implementation of NHIA offers a credible pathway to improving preventive health outcomes for all Nigerians—regardless of location or socio-economic status.

### Recommendations

1. Improve Rural and Informal Sector Coverage: Deploy community-based health insurance agents and mobile enrollment units to underserved communities.
2. Enhance Public Education on NHIA Benefits: Implement nationwide campaigns to increase awareness and understanding of available services.
3. Subsidize Premiums for Vulnerable Groups: Introduce pro-poor financing models to expand inclusion of low-income earners and the unemployed.
4. Strengthen Health Infrastructure: Equip and staff rural facilities to ensure service readiness for increased demand.
5. Implement Real-time Monitoring Systems: Use digital health records to track antenatal care visits and immunization progress and guide data-driven decision-making.

### REFERENCES

- Effiong, F. B., Ogbonna, C. P., Agughalam, P. I., Okwukwu, M. O., Dike, I. C., Elebesunu, E. E., & Uwishema, O. (2023). The role of community-based approaches in achieving universal health coverage: Addressing the Nigerian narrative. *Annals of Medicine and Surgery*, 85(5), 1769–1773. <https://doi.org/10.1097/MS9.000000000000044M>
- Federal Republic of Nigeria. (2022). National Health Insurance Authority Act, 2022 (Act No. 17, Gov. Gaz., 24 May 2022). Retrieved from <https://www.nhia.gov.ng/wp-content/uploads/2024/03/NHIA-Act-2022-Gazetted-Copy.pdf>
- Husain, S., Ala, S. H., Masood, Z., & Izhar, R. (2022). Initiation of antenatal care, content of care



- received and determinants for early visit – An opportunity still missed in Pakistan. *Liaquat National Journal of Primary Care*, 4, Article 31. <https://doi.org/10.37184/lnjpc.2707-3521.4.31>
- National Health Insurance Authority (NHIA) [Nigeria]. (2022). The Basic Health Care Provision Fund (BHCPF). Retrieved from <https://www.nhia.gov.ng/basic-health-care-provision-fund/>
- National Population Commission (NPC) [Nigeria], & ICF. (2019). Nigeria Demographic and Health Survey 2018: Key indicators report. NPC and ICF. <https://dhsprogram.com/pubs/pdf/FR359/FR359.pdf>
- Nwosu, C.O. & Ataguba, J.E. (2019). Socioeconomic inequalities in maternal health service utilisation: a case of antenatal care in Nigeria using a decomposition approach. *BMC Public Health* 19, 1493. <https://doi.org/10.1186/s12889-019-7840-8>
- Onoka, C. A., Onwujekwe, O. E., Hanson, K., & Uzochukwu, B. S. (2013). Examining Catastrophic health expenditures at variable thresholds using household consumption Expenditure diaries. *Tropical Medicine & International Health*, 18(12), 1424–1431. <https://doi.org/10.1111/tmi.12195>
- Oweibia, M., Elemuwa, C. O., Egberipou, T., Timighe, G. C., Sylvanus, P., & Wilson, T. R. (2025). Maternal and child health trends in Nigeria: A scoping review of NDHS 2018 vs. NDHS 2023. medRxiv. <https://doi.org/10.1101/2025.05.18.25327864>
- Wagstaff, A., Cotlear, D., Eozenou, P. H., & Buisman, L. R. (2016). Measuring progress towards Universal health coverage: With an application to 24 developing countries. *Oxford Review of Economic Policy*, 32(1), 147–189.
- World Health Organization. (2023). Immunization coverage. <https://www.who.int/news-room/fact-sheets/detail/immunization-coverage>
- World Health Organization (2025). Universal Health Coverage. <https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage>