International Archives of Medical and Health Research

Original Article

Print ISSN: 2705-1420; Online ISSN: 2705-1439
DOI: https://doi.org/10.33515/iamhr/2025.026/10

Readiness for Contributory Health Insurance among Civil Servants in Sokoto State, Nigeria: Implications for Reducing Out-of-Pocket Expenditure

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ABSTRACT

Background: High out-of-pocket (OOP) healthcare expenditure remains a major barrier to equitable healthcare access in Nigeria, exposing households to financial hardship. The Sokoto State Contributory Healthcare Management Agency (SOCHEMA) was established to enhance financial risk protection; however, successful implementation depends on civil servants' readiness to participate. **Aim:** To assess awareness and knowledge of the Contributory Health Insurance Scheme (CHIS), willingness to participate, and healthcare financing patterns among civil servants in Sokoto State, Nigeria. **Materials and Methods:** A descriptive cross-sectional study was conducted among permanent civil servants across selected ministries using a two-stage sampling technique to recruit 250 participants. Data were collected using a pretested structured questionnaire and analyzed with IBM SPSS version 26. Descriptive statistics were used to summarize sociodemographic characteristics, awareness, knowledge, willingness to participate, and healthcare financing practices. **Results:** Of 250 questionnaires distributed, 239 were analyzed (response rate: 95.6%). Awareness of health insurance was high (96.2%); however, most respondents had poor knowledge of CHIS principles (72.4%), and only 32.2% were enrolled in any health insurance scheme. Willingness to enroll was high (82.8%), with 83.3% willing to enroll family members and a mean proposed monthly premium of ₦10,954. Out-of-pocket payment remained predominant (98.0%), with respondents reporting borrowing money (45.6%) or selling personal belongings (31.8%) to finance healthcare. **Conclusion:** Despite limited functional knowledge, civil servants demonstrated strong readiness for contributory health insurance. Strengthened health insurance education and accelerated implementation of SOCHEMA benefit packages are essential to translate willingness into enrollment and reduce OOP expenditure toward universal health coverage.

Keywords: Contributory Health Insurance Scheme, Civil Servants, Out-of-Pocket Healthcare Expenditure, Health Insurance Readiness, Universal Health Coverage

INTRODUCTION

Sustainable healthcare financing remains a central pillar of the global pursuit of Universal Health Coverage (UHC), which seeks to ensure that all individuals receive necessary health services without financial hardship. Despite notable progress worldwide, financial protection against healthcare costs remains a major challenge, particularly in Low- and Middle-Income Countries (LMICs). The World Health Organization (WHO) estimates that approximately 150 million people globally incur catastrophic health expenditures annually, while over 100 million individuals are pushed into poverty due to direct out-of-pocket (OOP) payments for healthcare services.[1] These figures underscore persistent inequities in access to healthcare and highlight the urgency of transitioning toward prepayment and risk-pooling financing mechanisms such as health insurance. Even in high-income countries with relatively advanced health systems, coverage gaps remain evident; for example, millions of citizens in the United States still lack adequate health insurance, demonstrating that financial risk protection is a universal health system concern.[2]

In many LMICs, healthcare financing remains heavily dependent on out-of-pocket spending (OOPS), which exposes households to unpredictable financial shocks during illness episodes. Evidence suggests that although

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Published: 04-04-2026

some populations may accept user fees when associated with perceived quality healthcare services, reliance on direct payment at the point of care is inherently inequitable and financially unsustainable.[3] Consequently, health insurance schemes have emerged as a critical strategy for mobilizing resources, spreading financial risk, and improving equitable access to healthcare services. Assessing willingness to pay (WTP) for health insurance is therefore essential in settings where schemes must determine affordable premium contributions while maintaining financial sustainability and population acceptability.[4]

Global and regional studies demonstrate varying levels of readiness for contributory health insurance, depending on socioeconomic context, awareness, and trust in health systems. In Saudi Arabia, for instance, nearly 70% of respondents expressed willingness to contribute financially to national health insurance schemes, with higher income levels, urban residence, and education serving as significant predictors of enrolment.[5] Conversely, systematic evidence from Ethiopia and Sierra Leone indicates that limited awareness and inadequate understanding of insurance principles remain major barriers to participation, even where schemes are available.[6] These findings suggest that awareness alone may not translate into effective enrolment unless accompanied by adequate knowledge, perceived benefits, and confidence in scheme implementation.

Nigeria's health financing landscape is undergoing significant reform to achieve UHC through mandatory State Health Insurance Schemes (SHIS). The operational guidelines issued by the National Health Insurance Authority (NHIA) emphasize decentralized implementation through state-level contributory insurance programs that target both the formal and informal sectors.[7] The enactment of the National Health Insurance Authority Act 2022 further strengthened the legal framework by mandating financial risk protection for all Nigerians and promoting compulsory participation in health insurance schemes.[8]

Despite these policy advancements, empirical evidence across Nigerian states reveals considerable variation in awareness and preparedness for health insurance adoption. Studies among health workers and artisans have reported low awareness levels of approximately 28–29% in Ilorin and Abakaliki, respectively, indicating persistent informational gaps.[9,10] In contrast, investigations conducted in Osun, Kaduna, and Port Harcourt documented high willingness-to-pay rates ranging from 82% to nearly 90%, suggesting strong latent demand for financial protection when confidence and understanding are adequate.[11-13]

Within this evolving national context, Sokoto State established the Sokoto State Contributory Healthcare Management Agency (SOCHEMA) to coordinate the implementation of a contributory health insurance program to reduce catastrophic household health spending and expand access to essential services.[14] However, experience from Nigeria and other LMICs demonstrates that health insurance schemes frequently encounter implementation challenges when administrative capacity, community trust, or stakeholder engagement is insufficient. Poor uptake, limited awareness, and weak population ownership have been identified as recurring causes of program underperformance and sustainability challenges.[15]

Civil servants constitute a strategic entry point for the successful implementation of contributory health insurance schemes because they represent a relatively stable, organized, formal-sector workforce with predictable income streams that are suitable for payroll-based premium deductions. Their participation often determines the early financial viability and public credibility of state health insurance programs. Despite the importance of this group, there remains limited empirical evidence regarding their readiness to transition from predominantly out-of-pocket healthcare financing to a contributory insurance model in Sokoto State.

Understanding civil servants' awareness, knowledge, perception of benefits, and willingness to enroll is particularly critical in a setting where OOP payments remain dominant, and households frequently resort to coping mechanisms such as borrowing money or selling assets to finance healthcare. Such practices reflect gaps in financial protection and highlight the potential role of health insurance in mitigating economic vulnerability associated with illness. Therefore, this study aims to examine the readiness for contributory health insurance among civil servants in Sokoto State, Nigeria, by assessing awareness and knowledge of the Contributory Health Insurance Scheme (CHIS), willingness to participate and enroll family members, and existing patterns of out-of-pocket healthcare expenditure. The study intends to provide policy-relevant evidence to guide effective

implementation of health insurance programmes, reduce financial barriers to healthcare access, and accelerate progress toward Universal Health Coverage in Nigeria.

MATERIALS AND METHODS

Study Design, Population, and Area

This study employed a descriptive cross-sectional design to assess readiness for participation in the Contributory Health Insurance Scheme (CHIS) among civil servants in Sokoto State, Nigeria. The study population comprised permanent civil servants working across selected ministries within the Sokoto State Civil Service who were actively enrolled on the state payroll during the study period. All eligible civil servants who provided informed consent were included in the study. Sokoto State is located in the North-West geopolitical zone of Nigeria and has a projected population of over 5.3 million. The state civil service workforce consisted of approximately 29,583 employees distributed across 28 ministries and government agencies. The study focused on civil servants, who constitute the primary target population for the formal-sector package of the Sokoto State Contributory Healthcare Management Agency (SOCHEMA), established in 2016 to coordinate the implementation of contributory health insurance in the state.

Sample Size Estimation and Sampling Technique

The minimum sample size was estimated using Cochran's formula for single population proportion studies.[16] The calculation was based on a previously reported willingness-to-pay prevalence of 82% among similar populations,[17] a 95% confidence level, and a 5% margin of error. After adjusting for an anticipated 10% non-response rate, a final sample size of 250 respondents was obtained. A two-stage sampling technique was employed to select participants. In stage one, the 28 state ministries were stratified into three administrative clusters comprising the two major secretariats and other government agencies located outside the secretariat complexes. Two ministries were selected from each stratum using simple random sampling by balloting, resulting in six ministries (Health, Higher Education, Justice, Finance, Rural Development, and the Civil Service Commission). In stage two, lists of departments and staff strength within each selected ministry were obtained. Proportionate allocation of the sample size was performed across departments based on the number of eligible staff members in each ministry, and the departmental staff lists were used to constitute the sampling frame. Eligible civil servants in the selected departments were then sampled systematically until the sample size allocated to each department was reached. Inclusion criteria included being a permanent civil servant on the state payroll and willingness to participate in the study.

Data Collection

Data were collected using a pretested, structured, self-administered questionnaire adapted from previously validated instruments used in studies assessing awareness and willingness to pay for health insurance.[18] The questionnaire was designed to capture information relevant to readiness for contributory health insurance participation. The instrument consisted of four major sections: socio-demographic characteristics; awareness and knowledge of health insurance and CHIS; perception of benefits and attitudes toward contributory health insurance; and willingness to participate, willingness to pay premiums, and healthcare financing practices. Content validity was ensured through expert review by senior researchers experienced in health systems research and public health financing. The questionnaire was pretested among 25 civil servants (approximately 10% of the calculated sample size) at the Hospital Services Management Board, Sokoto State, who were not included in the final study population. Feedback from the pretest informed refinement of question clarity, sequencing, and internal consistency.

Data Analysis

Completed questionnaires were checked for completeness and accuracy before data entry. Data were entered, cleaned, and analyzed using IBM SPSS Statistics (SPSS) version 26. Continuous variables such as age, monthly income, and proposed insurance premium were summarized using means and standard deviations, while categorical variables, including socio-demographic characteristics, knowledge level, awareness, perception, and willingness to participate, were summarized using frequencies and percentages. Knowledge of CHIS was assessed using a composite scoring system expressed as a percentage and categorized into poor, fair, and good levels based on predefined cut-off values. Results were presented using tables and charts.

Ethical Consideration

Ethical approval for the study was obtained from the Department of Planning, Research, and Statistics of the

Sokoto State Ministry of Health. Administrative permission was also secured from the leadership of the selected ministries prior to the commencement of data collection. The purpose and procedures of the study were explained to all eligible participants. Written informed consent was obtained before enrolment. Participation was voluntary, and respondents were informed of their right to decline participation or withdraw at any stage without consequences. Confidentiality and anonymity were maintained by excluding personal identifiers from the questionnaires and restricting access to study data to the research team only.

RESULTS

Sociodemographic characteristics of respondents

Of the 250 questionnaires distributed, 239 were retrieved and analyzed, giving a response rate of 95.6%. The largest age group was 30–39 years (81; 40.5%), and the respondents were predominantly male (153; 64.0%). Most respondents were Muslims (224; 93.7%) of Hausa ethnicity (189; 79.1%), and the majority were male household heads (184; 77.0%). Educational attainment showed that the majority (226; 94.5%) had a tertiary education. Regarding grade level, the majority (127, 53.2%) were in grades 7–12 [Table 1]. The monthly income ranged from ₦30,000 to ₦750,000, with a larger proportion (98; 41.0%) earning ₦100,001 to ₦150,000 [Figure 1].

Awareness, knowledge, and perception of the contributory health insurance scheme

A total of 230 respondents (96.2%) had heard about health insurance, while 188 (78.7%) had heard about the Contributory Health Insurance Scheme (CHIS). Only 77 respondents (32.2%) were enrolled in any health insurance scheme. Knowledge assessment showed that 173 respondents (72.4%) had poor knowledge, 66 (27.6%) had fair knowledge, and none had good knowledge. A total of 167 respondents (70.0%) reported that health insurance schemes were beneficial [Table 2].

Willingness to participate and willingness to pay

Overall, 198 respondents (82.8%) were willing to enroll in CHIS, 199 (83.3%) were willing to enroll family members, and 168 (70.3%) were willing to enroll their entire household [Table 2]. Among respondents who specified the amounts they were willing to contribute (n = 132), proposed monthly premiums ranged from ₦500 to ₦17,000, with a mean contribution of ₦10,954. A larger proportion of respondents were willing to contribute ₦1,000–₦5,000 monthly (63; 47.7%), followed by those willing to contribute >₦10,000 monthly (33; 25.0%) [Figure 2].

Table 1: Sociodemographic characteristics of respondents

Variables	Frequency (%) n = 239
Age group (years)	
18-29	29 (14.5)
30-39	81 (40.5)
40-49	55 (27.5)
50-59	27 (13.5)
60-65	8 (4.0)
Sex	
Male	153 (64.0)
Female	86 (36.0)
Religion	
Islam	224 (93.7)
Christianity	15 (6.3)
Ethnicity	
Hausa	189 (79.1)
Fulani	38 (15.9)
Others	12 (5.0)
Household characteristics	
Male head	184 (77.0)
Female head	55 (23.0)
Educational status	
Primary	2 (0.9)
Secondary	11 (4.7)
Tertiary	226 (94.5)
Grade level	
0-6	29 (12.1)
7-12	127 (53.2)
≥13	83 (34.7)

Healthcare financing practices

Out-of-pocket payment was reported by 234 respondents (98.0%) as the method of healthcare financing. Borrowing money to pay health bills was reported by 109 respondents (45.6%), while 76 (31.8%) had sold personal belongings to finance healthcare expenses [Table 2].

DISCUSSION

This study examined the readiness for contributory health insurance among civil servants in Sokoto State, Nigeria, within the broader context of efforts to reduce out-of-pocket (OOP) healthcare expenditure and advance universal health coverage (UHC). The high response rate (95.6%) strengthens the internal validity of the findings and reflects strong engagement among respondents.

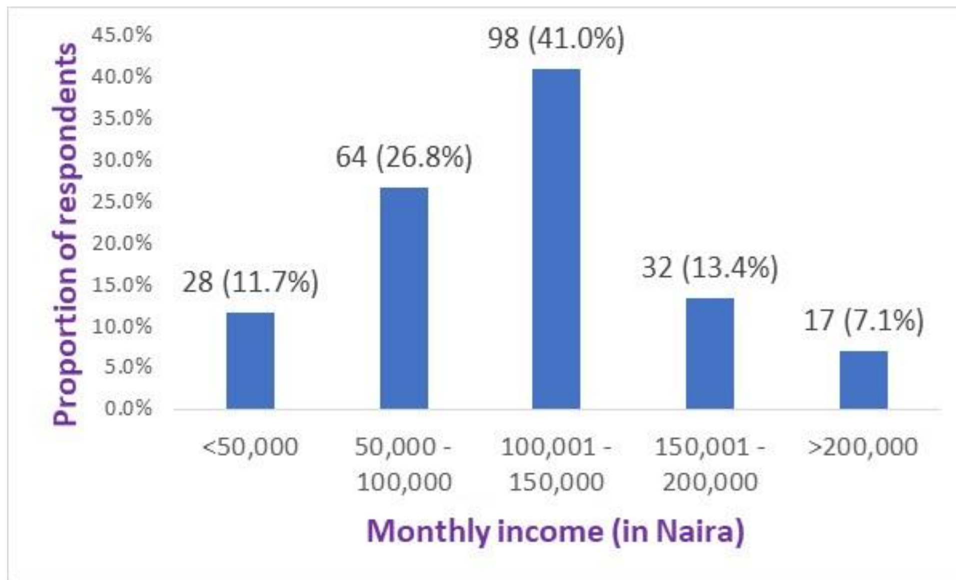

Figure 1: Distribution of respondents' monthly income

Table 2: Respondents' knowledge, perception, and willingness to enroll in the health insurance Scheme

Variables	Response, n = 239	
	Yes Frequency (%)	No Frequency (%)
Ever heard about health insurance	230 (96.2)	9 (3.8)
Ever heard about the Contributory Health Insurance Scheme (CHIS)	188 (78.7)	51 (21.3)
In a health insurance scheme	77 (32.2)	162 (67.8)
Found benefits in health insurance schemes	167 (70.0)	72 (30.0)
Willing to participate/enroll in the CHIS already established in the state	198 (82.8)	41 (17.2)
Willing to enroll some family members in the scheme	199 (83.3)	40 (16.7)
Willing to enroll the entire household in the scheme	168 (70.3)	71 (29.7)
Ever borrowed money to pay health bills	109 (45.6)	130 (54.4)
Ever sold personal item(s) to pay for health/hospital bills	76 (31.8)	163 (68.2)

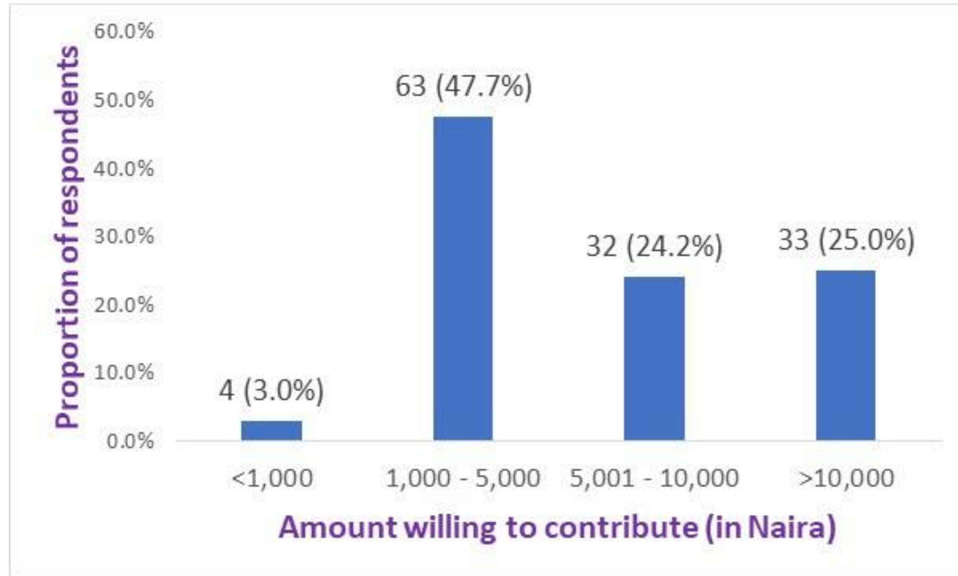

Figure 2: Amount of money respondents were willing to contribute to CHIS

The predominance of participants aged 30–39 years indicates a relatively young and economically active workforce, consistent with previous studies among civil servants and organized-sector workers in Abakaliki and Katsina States.[10,19] Such demographic characteristics are particularly relevant because younger working populations represent a strategic entry point for sustainable health insurance risk pooling, a core principle emphasized in health financing frameworks.[3]

The male predominance and overwhelmingly Muslim composition of respondents mirror the socio-cultural structure of North-Western Nigeria, where men often function as household heads and principal financial decision-makers.[20] The high proportion of respondents with tertiary education (94.5%) suggests a population theoretically well-positioned to understand health financing innovations. However, the findings reveal that educational attainment alone does not necessarily translate into adequate comprehension of health insurance systems. A key finding of this study is the marked discrepancy between awareness and knowledge of health insurance. Although almost all respondents had heard of health insurance (96.2%) and a substantial proportion were aware of the Contributory Health Insurance Scheme (CHIS), only a minority demonstrated fair knowledge, while none exhibited good knowledge. This pattern reflects what may be described as "nominal awareness," previously reported in Nigerian studies, where exposure to the concept of insurance did not equate to an understanding of risk sharing, premium contributions, or benefit entitlements.[9,21] The reliance on informal information sources rather than structured communication from implementing agencies such as SOCHEMA likely contributes to this gap.[22] Similar implementation challenges have been documented in community-based insurance programs across Nigeria, where inadequate public education limited enrollment despite favorable attitudes. [15]

Notably, actual enrollment in any insurance scheme remained low (32.2%), underscoring the persistent awareness–enrollment gap frequently observed in low- and middle-income countries (LMICs).[8] The finding suggests that legislative establishment of state insurance programs alone, including the SOCHEMA Law,[14] is insufficient to achieve coverage expansion without sustained demand-generation strategies. According to global UHC monitoring reports, effective insurance uptake requires not only policy availability but also trust, understanding, and perceived value among potential beneficiaries.[1] Despite limited knowledge, willingness to participate was remarkably high, with over four-fifths of respondents expressing readiness to enroll themselves and their family members. This level of willingness aligns closely with findings among civil servants in Kaduna State

and urban residents in Port Harcourt, indicating a growing acceptance of prepaid healthcare financing in Nigeria's formal sector.[12,13] The willingness to enroll entire households further highlights the central role of family protection as a motivating factor, consistent with economic theories of insurance demand that emphasize risk aversion and financial security.[5]

The mean proposed monthly premium of ₦10,954 suggests a substantial perceived value attached to health insurance among respondents. Given the income distribution and stable employment status of civil servants, this relatively high willingness to pay (WTP) may reflect both financial capacity and prior exposure to catastrophic health expenditures. Comparable studies in Ethiopia reported significantly lower WTP levels, underscoring contextual differences in income stability and perceived healthcare risk.[6] The findings therefore indicate that the formal public sector may serve as an initial anchor population for scaling state health insurance schemes, as recommended in Nigeria's National Health Insurance Authority operational guidelines.[7]

Healthcare financing practices observed in this study further explain the strong demand for insurance protection. Nearly all respondents relied on OOP payments, a proportion substantially higher than national estimates, where OOP expenditure already dominates health financing.[4,24] The widespread experience of borrowing money (45.6%) or selling personal belongings (31.8%) to pay medical bills illustrates the financial vulnerability associated with direct payment systems. Such coping mechanisms have been linked to delayed care seeking, impoverishment, and inequitable access to healthcare services.[23] These findings reinforce global evidence that high OOP expenditure remains a major barrier to achieving UHC and financial risk protection.[1]

Importantly, socio-cultural considerations may influence the transition from willingness to actual enrollment. In Northern Nigeria, misconceptions regarding insurance as speculative or religiously incompatible have previously limited uptake. Nevertheless, the strong willingness to enroll family members into the scheme observed in this study suggests that culturally framed messaging emphasizing collective protection and social solidarity may overcome resistance. Targeted, culturally sensitive communication strategies, combined with transparent benefit packages and efficient service delivery, are essential to prevent the implementation challenges and user dissatisfaction reported in earlier Nigerian insurance programs.[25] Overall, the findings demonstrate that civil servants in Sokoto State exhibit substantial readiness for contributory health insurance, characterized by high awareness and willingness, but constrained by limited knowledge and low enrollment. Bridging this knowledge–participation gap through structured education, institutional trust building, and effective scheme implementation will be critical for translating willingness into sustained enrollment and ultimately reducing dependence on OOP healthcare financing.

STUDY LIMITATIONS

This study has some limitations. Clarification of insurance concepts during data collection may have introduced interviewer influence, while religious and socio-cultural perceptions could have affected responses. The cross-sectional design limits causal inference, reflecting only associations at a single time point. The use of self-reported data introduces potential recall and social desirability biases, particularly for estimates of healthcare expenditure and willingness to pay. The study population, restricted to civil servants in selected ministries in Sokoto State, limits generalizability and may involve residual non-response bias. Furthermore, stated willingness to pay was hypothetical and may not translate into actual enrollment or sustained premium contribution.

CONCLUSION

Civil servants in Sokoto State demonstrate strong readiness for contributory health insurance, with high awareness and willingness to enroll despite limited functional knowledge of the Contributory Health Insurance Scheme (CHIS). The widespread reliance on out-of-pocket payments and on financial coping strategies highlights the urgent need for effective financial risk protection. Bridging the gap between awareness and actual enrollment requires targeted health insurance education, culturally sensitive communication, and timely implementation of SOCHEMA benefit packages to build trust, promote household participation, and reduce out-of-pocket expenditure toward achieving universal health coverage.

Acknowledgements

The authors sincerely acknowledge the Sokoto State Ministry of Health for granting ethical approval for this study, as well as the leadership of the selected ministries and the Sokoto State Civil Service Commission for providing administrative support during data collection. They are grateful to the management and staff of the participating ministries for their cooperation and assistance throughout the study process. The authors particularly appreciate all civil servants who voluntarily participated and contributed their time and valuable responses to make this study possible.

Source of support

Nil.

Conflict of interest

None declared.

REFERENCES

1. World Health Organization. Tracking universal health coverage: 2023 global monitoring report. World Health Organization; 2023.
2. Cohen RA, Cha AE. Health Insurance Coverage: Early Release of Quarterly Estimates From the National Health Interview Survey, January 2020–March 2021. National Center for Health Statistics. August 2021. Available from: https://www.cdc.gov/nchs/nhis/releases.htm [Last accessed on 2026, March 5].
3. Carrin G, James C. Key performance indicators for health insurance. In: Health Financing for Poor People. Washington (DC): World Bank; 2005.
4. Onwujekwe O, Hanson K, Uzochukwu B. Examining inequities in incidence of catastrophic health expenditures on different healthcare services and health facilities in Nigeria. PloS one 2012; 7(7): e40811. Available from: https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0040811&type=printable [Last accessed on 2026, March 5].
5. Al-Hanawi MK, Alsharqi O, Vaidya K. Willingness to pay for improved public health care services in Saudi Arabia: a contingent valuation study among heads of Saudi households. Health Economics, Policy and Law 2020; 15(1): 72-93.
6. Minyihun A, Gebregziabher MG, Gelaw YA. Willingness to pay for community-based health insurance and associated factors among rural households of Bugna District, Northeast Ethiopia. BMC Research Notes. 2019; 12(1): 55. Available from: https://link.springer.com/content/pdf/10.1186/s13104-019-4091-9.pdf [Last accessed on 2026, March 5].
7. National Health Insurance Authority. Operational guidelines for state health insurance schemes in Nigeria. Abuja: NHIA; 2023.
8. Federal Government of Nigeria. National Health Insurance Authority Act 2022. Official Gazette; 2022.
9. Adewole D, Bolarinwa O, Dairo M. National health insurance scheme and universal health coverage among formal sector employees in Ilorin, Nigeria: has any progress been made? Int J Trop Dis Health 2016; 18(4): 1-0.
10. Azuogu BN, Eze NC. Awareness and Willingness to Participate in Community-Based Health Insurance among Artisans in Abakaliki, Southeast Nigeria. Asian J Res Med Pharm Sci 2018; 4(3): 1–8.
11. Bamidele JO, Adebimpe WO. Awareness, Attitude, and Willingness of Artisans in Osun State, Southwestern Nigeria, to Participate in Community-Based Health Insurance. J Community Med Prim Health Care 2012; 24(1–2): 1–10.
12. Giwa A, Kabir M, Umar II, Lawal B, Suleiman H. Awareness and willingness to pay for community-based health insurance scheme in North-Western Nigeria. J Pharma Health Sci 2018; 6(2): 139-47.
13. Adolphus AA. Health insurance coverage and treatment-seeking behavior of people working in Port Harcourt. Yen Med J 2020; 2(2): 56-64.
14. Sokoto State Government. Sokoto State Contributory Healthcare Management Agency (SOCHEMA) Law. Sokoto: Ministry of Justice; 2018.
15. Odeyemi IA. Community-based health insurance programmes and the national health insurance scheme of Nigeria: challenges to uptake and integration. Int J Equity Health 2014; 13(1): 20. Available from: https://link.springer.com/content/pdf/10.1186/1475-9276-13-20.pdf [Last accessed on 2026, March 18].
16. Cochran WG. Sampling Techniques. 3rd ed. New York: John Wiley & Sons; 1977.
17. Adeniji JO. Perception of the national health insurance scheme among artisans in Ibadan, Nigeria. African Anthropologist 2025; 23(1); 209-228.
18. Araoye MO. Research methodology with statistics for health and social sciences. Ilorin: Nathadex Publishers; 2004.
19. Abdulganiyu G, Muhammad K, Ibrahim U, Suleiman HH, Lawal BK. Awareness and Willingness to Pay for Community-Based Health Insurance Scheme in North-Western Nigeria. Bangladesh J Med Educ 2018; 9(2): 19-23.
20. National Bureau of Statistics (NBS). Nigeria Living Standards Survey (NLSS) 2019. Abuja: NBS; 2020.
21. Adeniran A, Wright KO, Aderibigbe A, Akinyemi O, Fagbemi T, Ayodeji O, et al. Determinants of health insurance adoption among residents of Lagos, Nigeria: A cross-sectional survey. Open Health 2024; 5(1): 20230043. Available from: https://www.degruyterbrill.com/document/doi/10.1515/ohe-2023-0043/html [Last accessed on 2026, March 18].

22. Abdulraheem BI, Olapipo AR, Amodu MO. Primary health care services in Nigeria: Critical issues and strategies for enhancing the use by the rural communities. J Publ Health Epid 2012; 4(1): 5-13.
23. Onah MN, Govender V. Out-of-pocket payments, health care access and utilization in South Eastern Nigeria: a gender perspective. PLoS ONE 2014; 9(4): e93887. Available from: https://journals.plos.org/plosone/article/file?id=10.1371/journal.pone.0093887&type=printable [Last accessed on 2026, March 18].
24. Agba A, Ushie EM, Osuchukwu NC. National Health Insurance Scheme (NHIS) and employees' access to healthcare services in Cross River State, Nigeria. Glob J Hum Soc Sci 2010; 10(7): 9-16.
25. Osungbade KO, Obembe TA, Oludoyi A. Users' satisfaction with services provided under the National Health Insurance Scheme in Southwestern Nigeria. Int J Trop Dis Health 2014; 4(5): 595-607.

How to cite this article: Shehu MT, Ahmed A, Olatunji LK, Aliyu ND, Abdulkarim YA, Tureta SS. Readiness for Contributory Health Insurance among Civil Servants in Sokoto State, Nigeria: Implications for Reducing Out-of-Pocket Expenditure. Int Arch Med Health Res 2025; 6(1): 84-92.