



Knowledge of Social Health Insurance programs among artisans in Rivers State, Nigeria

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ABSTRACT

Background/Objectives: The Social Health Insurance Scheme (SHIS), administered under Nigeria's National Health Insurance Scheme (NHIS) is designed to distribute the financial risk of healthcare costs across a large group of individuals. By pooling these risks, SHIS allows for the payment of a premium based on the average cost of healthcare for the group, thereby making healthcare services more affordable. This mechanism is particularly relevant for artisans and others in the informal sector, who often face significant barriers to accessing affordable healthcare. This study aims to assess the level of knowledge about SHIS among artisans in Rivers State, Nigeria. The findings are intended to identify strategies that can expand health insurance services to this group, thereby enhancing their access to affordable healthcare. **Design/Methods:** The research employed a cross-sectional study design involving 598 artisans selected through a systematic random sampling technique. The target population included skilled workers such as bricklayers, carpenters, electricians, hairstylists and tailors. Data were collected using an interviewer-administered semi-structured questionnaire and analyzed using IBM SPSS version 22. Statistical methods, including Chi-square and binary logistic regression were used to assess associations between variables, with a significance level set at $p < 0.05$. **Results:** The study found that the majority of artisans were self-employed, with most having attained secondary education. Income levels were predominantly in the lower to middle brackets, with a significant proportion of artisans categorized as "poor" or "middle class" in terms of wealth. Knowledge about SHIS was generally low, as indicated by mean scores on knowledge-related statements ranging from 1.75 to 2.55 on a 4-point Likert scale. This suggests a widespread lack of awareness or uncertainty about SHIS. **Conclusion:** The study concludes that knowledge of SHIS among artisans in Rivers State remains significantly low, limiting their ability to benefit from the scheme. Addressing the barriers identified and implementing targeted strategies could enhance enrolment and improve healthcare access for this critical segment of the population.

Keywords: Artisans; Healthcare systems; Knowledge, Social Health Insurance; Nigeria

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INTRODUCTION

Healthcare service delivery is a fundamental social responsibility of any government, as it ensures the well-being of its citizens¹. Accordingly, healthcare is often prohibitively expensive, making it inaccessible to the poor, who cannot afford the costs of treating and managing serious illnesses. In Nigeria, the public health system suffers from chronic underfunding and poorly motivated

healthcare personnel, resulting in inequitable access to quality and affordable healthcare services^{2,3,4}.

The challenge of accessing comprehensive healthcare is particularly acute in developing countries, especially among low-income populations. In Nigeria, approximately 70% of the population resides in rural areas, where out-of-pocket (OOP) payments are the primary means of financing healthcare². This reliance on OOP payments has created significant barriers to

healthcare access for the poor, as their low income and expenditure patterns make it difficult to afford necessary treatments^{2,4}. The predominance of OOP financing, combined with low health budgets and limited penetration of health insurance, exacerbates these challenges^{5,6}. To address this issue, prepayment schemes and community-based insurance programs have been recommended as strategies to protect vulnerable populations from the catastrophic costs of healthcare⁷.

The World Health Organization (WHO) defines healthcare financing as a system concerned with mobilizing, accumulating and allocating funds to meet the health needs of individuals and communities⁸. This system comprises three key functions; revenue mobilization, resource pooling and service purchase or allocation. These functions are guided by principles such as equity, effectiveness, comprehensiveness and efficiency. Health insurance, one of the primary mechanisms for healthcare financing, involves advance payments through contributions, premiums or taxes pooled to cover specified health services.

The Community-Based Health Insurance Scheme (CBHIS) is a significant component of healthcare financing in Nigeria, introduced under the National Health Insurance Scheme (NHIS) established by Act 35 of the 1999 Nigerian Constitution. The CBHIS operates as a nonprofit program targeting groups such as households or occupational associations. It is built on principles of mutual support and collective risk pooling, allowing members to share the costs of healthcare^{5,6}. By spreading the financial risk of medical expenses across a large group, CBHIS makes healthcare costs more affordable. It also addresses the healthcare challenges faced by resource-poor communities and provides financial protection for disadvantaged and vulnerable groups through cross-subsidization. Effective implementation of these schemes requires strong empirical data to guide cost-sharing and community participation strategies¹.

Despite its potential benefits, the NHIS has limited coverage, reaching only about 10% of the population, primarily federal government employees, the armed forces and paramilitary personnel^{5,6}. Awareness and knowledge of CBHIS are particularly low among the general population, with rural dwellers and artisans being among the least informed. This study aimed to assess the

knowledge of Social Health Insurance programs among artisans in Rivers State, with the goal of identifying strategies to improve awareness and participation in these schemes.

METHODS

Study design: This study employed a mixed-methods approach using a cross-sectional survey for quantitative and key informant interview for the qualitative aspect. It is meant to evaluate the willingness of artisans (heads of households) to enrol in social health insurance programs.

Study setting: Rivers State, located in southern Nigeria, is notable for its economic significance as the hub of the country's oil and gas industry, with Port Harcourt as its capital and largest city in the Niger Delta region. The state is bordered by the Atlantic Ocean to the south, Imo, Abia, and Anambra States to the north, Akwa Ibom to the east and Bayelsa and Delta States to the west. It is home to a diverse population, including indigenous ethnic groups such as the Ikwerre, Ibani, Opobo, Abua, Eleme, Okrika, Kalabari, Etche, Ogba, Ogoni, and Engenni.

Study population: The study population includes artisans such as mechanics, tailors, carpenters, welders and hairdressers. Eligibility criteria required participants to be at least 18 years old, residents of Rivers State and willing to provide informed consent. Exclusion criteria included artisans with severe medical conditions requiring immediate attention or those unable to communicate effectively due to language barriers.

Sample size and sampling techniques: A multistage sampling approach was employed to select participants. Stratified sampling was used to divide the state into its three senatorial districts: Rivers West, Rivers East and Rivers South East. Simple random sampling was then used to select two rural local government areas (LGAs) from each senatorial district, while purposive sampling was applied to select urban and suburban LGAs, including Obio/Akpor, Port Harcourt, Eleme, and Ahoada East. Finally, a purposive non-probability sampling method was used to select study participants from these LGAs. The sample size was determined using Cochran's formula, resulting in a target of 654 participants.

Data collection tools: Data collection was facilitated by a structured instrument titled the Knowledge of Social Health Insurance Program (SHI) form, which was specifically developed for this study. The form consisted of two parts: Part A captured demographic and contextual information, while Part B focused on knowledge of social health insurance among artisans. The instrument was informed by a literature review and focus group discussions and was structured around three main themes; general understanding of health insurance, suggestions and recommendations.

Data analysis and management: Quantitative data were checked for errors, cleaned and entered into a system for analysis using SPSS or Epi-info version 22. Data were summarized with proportions and means and presented in frequency tables and cross-tabulations. Chi-square tests were used to determine statistically significant associations in cross-tabulated variables, with Fisher’s exact tests applied where appropriate. The significance level was set at a p-value of less than 0.05.

RESULTS

The analysis of the response rate provides valuable insights into the study's methodology and participant engagement. With a target sample size of 756 participants, the study achieved a robust actual participant count of 598, corresponding to a response rate of 91.4%. This high level of participation reflects strong engagement among the target population.

The demographic distribution of participants reveals significant trends. The age group 30–34 years accounted for the highest proportion at 23.9%, closely followed by the 25–29 age bracket at 18.7%. In contrast, the youngest categories, comprising the 15–19 and 20–24 age brackets, collectively constituted only 18.4%. Older participants were minimally represented, with those over 60 years making up just 2.3%. This demographic distribution underscores a focus on the working-age population, suggesting that the findings may primarily apply to this group, with limited insights into the perspectives of younger or older demographics.

Employment patterns among the artisans indicate a strong inclination toward self-employment, with 70.7% identifying as self-employed. This trend likely reflects limited

opportunities within the formal job market, although the presence of 14.9% in public sector employment and 14.4% in organized private sectors highlights some availability of formal job avenues. These findings suggest that while self-employment dominates, formal employment opportunities are not entirely absent.

Table 1: Socio – demographic Characteristics of Study Participants (N = 598)

Description	Number	Percentage
Target sample size	654	100%
Actual participants	598	91.40%
Non-participants	56	8.60%

Correlation analysis sheds light on the socio-economic dynamics within the artisan population. A strong positive correlation (0.78, $p < 0.001$) between monthly income and wealth status reveals that increased income is closely associated with improved economic standing. This finding aligns with expectations, as financial stability often stems from a consistent income flow, enabling upward mobility in wealth and greater capacity for health-related expenditures, including health insurance subscriptions.

Knowledge of social health insurance programs among artisans presents a mixed picture. The mean score of 2.55 on perceptions of whether social health insurance could improve healthcare access indicates moderate optimism. While 40.6% of respondents agreed and 16.7% strongly agreed that such programs could be beneficial, the lack of comprehensive understanding remains evident. This partial awareness highlights a potential barrier to effective advocacy and adoption of health insurance programs, as artisans may recognize the benefits but lack the detailed knowledge required for informed decision-making.

The regression analysis further elucidates factors influencing knowledge levels. The model's R-squared value of 0.412 suggests that approximately 41.2% of the variance in knowledge levels can be explained by the predictors included in the model. The statistically significant constant term (coefficient = 0.876, $p < 0.001$) indicates a baseline level of knowledge independent of other variables, reinforcing its relevance in understanding the artisans' knowledge landscape.

Comparative analysis of rural and urban artisans highlights the impact of location on socio-economic characteristics. Urban artisans demonstrated higher education levels (mean = 3.18 ± 0.70) compared to their rural counterparts (mean = 2.89 ± 0.73), with the difference being statistically significant (t-value = -4.98, p<0.001). Similarly, disparities in monthly income further underscore the influence of geographic context on socio-economic status. These findings emphasize the role of location in shaping access to resources, opportunities and overall socio-economic outcomes.

DISCUSSION

The socio-economic profile of artisans in Rivers State paints a vivid picture of economic resilience amid persistent challenges. A significant majority, 70.7%, are self-employed, reflecting a reliance on informal sector opportunities due to limited access to formal employment. Public and private sector employment account for 14.9% and 14.4%, respectively, indicating some availability of structured job opportunities. The predominant artisanal trades include tailoring (22.4%), mechanics (20.6%), carpentry (16.4%), masonry (14.5%), and plumbing (12.7%). These trades align with typical urban employment patterns in Nigeria, as noted in similar studies.

Income distribution among artisans reveals that 33.6% earn between 20,000–29,999 Naira monthly, followed by 26.1% earning 10,000–19,999 Naira. Only 11% earn 40,000 Naira or more, underscoring the prevalence of low-to-middle income brackets. Wealth status further highlights economic challenges, with 29.4% classified as "poor" and 33.1% as "middle," while only 16.4% and 6.5% fall into the "rich" and "richest" categories, respectively. Asset ownership is similarly constrained, with 70.6% lacking home ownership and only 34.9% owning a car or significant household items. Educational attainment is predominantly at the secondary level (55%), with 28% achieving higher education, 15% completing primary education and 3% having no formal education. The modal age group of 30–34 years (24%) underscores the concentration of artisans within the working-age population.

These findings resonate with broader trends in developing countries⁹. For instance, Adebayo *et al.* reported similar self-employment rates among informal sector workers in Nigeria, while it was highlighted that over 60% of Nigeria's workforce operates in the

informal sector. Income distribution patterns also align with the World Bank's 2019 report on poverty and shared prosperity, which emphasizes the predominance of lower-income brackets in developing economies. Low rates of home ownership, as observed in this study, are consistent with urban housing challenges documented in Lagos, Nigeria⁹

Table 2: Socio – demographic Characteristics of Study Participants (N = 598)

Characteristic	Category	Frequency (n)	Percentage (%)
Age (years)	15-19	32	5.4
	20-24	78	13
	25-29	112	18.7
	30-34	143	23.9
	35-39	98	16.4
	40-44	67	11.2
	45-59	54	9
	>60	14	2.3
Gender	Male	389	65.1
	Female	209	34.9

Knowledge about social health insurance programs among artisans was generally low, with mean scores on a 4-point Likert scale ranging from 1.75 to 2.55, reflecting uncertainty or disagreement on most statements. Only 35.1% of participants agreed or strongly agreed that they understood the benefits of such programs (mean score 2.13). The highest agreement level was observed in the belief that social health insurance could improve access to healthcare services, with 57.3% agreeing or strongly agreeing (mean score 2.55). Understanding of enrollment procedures, awareness of premiums, and differentiation between public and private programs however scored lower, with mean scores of 1.91, 1.86, and 1.87, respectively.

Regression analysis identified several factors positively associated with knowledge levels, including age, educational status, urban residence, monthly income and awareness scores (β = 0.005, 0.143, 0.112, 0.00001, and 0.421, respectively; all p < 0.05). Conversely, female participants were negatively associated with knowledge levels (β = -0.087, p = 0.034). These findings align with other studies, which reported that only 32.4% of participants in Nigeria had good knowledge of the NHIS and found that 38.7% of Ethiopian households understood community-based

health insurance^{11,12}. Similar studies targeting informal sector workers in Uganda also reported low knowledge levels¹³

These consistent findings suggest that limited awareness of health insurance schemes is a pervasive issue in low- and middle-income countries. Contributing factors include low health literacy, inadequate public education campaigns and complex insurance systems that are difficult for the general population to navigate. Addressing these barriers is crucial to enhancing knowledge and participation in health insurance programs, particularly among informal sector workers like artisans.

CONCLUSION

The knowledge of SHIS among artisans in Rivers State is low. Factors associated with this low knowledge include gender, level of education, family income and frequency of illness. It is therefore recommended that public awareness campaign on benefits of SHIS should be intensified importantly among workers in the informal sector by government and nongovernmental agencies.

Recommendations

1. Intensify Public Awareness Campaigns.
2. Engage Artisan Associations and Trade Unions.
3. Promote gender-inclusive communication strategies.
4. Strengthen health education and literacy programs.
5. Subsidize premiums for low-income artisans.
6. Establish enrolment support desks in urban and semi-urban areas.
7. Strengthen community-based outreach through health workers.
8. Monitor and evaluate awareness interventions.
9. Regular evaluation of SHIS awareness campaigns will help identify what strategies are most effective, allowing for continuous improvement and adaptation to the needs of artisan populations.
10. Leverage digital platforms.
11. Integrate SHIS education into vocational training programs:

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