Knowledge and attitudes of informal workers in Jos-Jarawa Council ward of Plateau State, towards the National Health Insurance Scheme

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Abstract

Background: Health insurance has been accepted as an optimal strategy for addressing financial constraints to universal health care. At its introduction in 2005, the Nigerian National Health Insurance Scheme targeted universal coverage by 2015. However, five years afterwards, less than 5% of the population is covered, mostly the formal sector, while largely excluding the informal sector. This study assessed knowledge and attitudes of informal workers towards the scheme in Jos-Jarawa Council Ward of Plateau State. The findings will foster a better understanding of artisans' health insurance behaviours, and inform future designs of the scheme.

Method: A descriptive, cross sectional design was adopted. One hundred sixty five participants were conveniently sampled and socio-demographic, knowledge and attitudes data of artisans about health insurance collected, using a pretested interviewer administered semi-structured questionnaire. Data analysis was conducted using Epi Info version 3.5.4. Statistical software and Chi-square (X^2) was applied to test for statistical significance.

Results: One hundred and eleven (67.3%) of the 165 participants were males and 54 (32.7%) were females, with age range of 15-55 years and median age of 31 years. Majority of the respondents (83.6%) had poor knowledge of the scheme, while155 (93.9%) had negative attitude towards the scheme. Statistically significant relationships existed between education and knowledge, education and attitude and monthly income and attitude about the scheme by respondents.

Conclusion: Knowledge of, and attitudes towards health insurance among artisans was low and poor respectively. Ministries of health and related agencies need to improve health insurance literacy interventions targeting informal workers.

Key words: Knowledge, Attitudes, informal workers, Jos-Jarawa, National Health Insurance Scheme

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Introduction

Universal Health Coverage (UHC) is at the centre of current global healthcare delivery efforts, focusing on unconstrained access to good quality health care. It also envisions every member of a society receiving the full range of health care services they need, without the pains of financial hardship.[1-3]Progress towards UHC has however, remained challenging globally, particularly where price barriers still exist. Worldwide, it has been reported that about 70 million households still experience adverse financial outcomes following health care consumption, annually.[4] Thus, overcoming the equity and financial protection objectives to achieving UHC, will require health financing and delivery reforms designed to reflect people's ability to pay.[5]

Compulsory prepayment financing schemes of risks pooling and sharing across populations have emerged as preferred payment system for health care. This has the dual capacity of mitigating the detrimental effects of high and unpredictable health care costs, and a veritable tool for achieving UHC.[5-7] Whilst there is the consensus that social health insurance (SHI) schemes do expand access to health care for participants, most schemes are heavily focused on formal sector workers, because of the relatively easy legal institutions to enforce mandatory deductions of contributions at source, to the exclusion of the pervasive informal sector (self-employed, skilled workers), especially in developing countries like Nigeria.[8-10]

Nigeria introduced the national health insurance scheme in 2005, with a target of population coverage with equitable access to health care by 2015.[11] Five years after its expected actualization, the scheme remains limited to mainly the formal sector, covering about 4 million federal civil servants and their immediate family dependants only.[12,13] This translates to one in 30 Nigerians being covered. The slow progress implies that most of the population who need health care services and financial protection remains uncovered. In particular, rural dwellers and the sprawling informal sector remain largely under-represented.[14,15]Several reasons are said to underlie the lag in uptake of the scheme among these groups, and include low levels of awareness of the scheme by beneficiaries, high prevalence of poverty among the populace, low trust in government policies and mistrust for integrity of the fund management. Furthermore, conflicting religious and cultural beliefs, as well as social demographic variables have also emerged as important barriers to health insurance participation.[15,18] Generally, awareness

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of the NHIS by Nigerians is said to be especially low due to inconsistent and fragmented literacy efforts on the part of agency officials, particularly in northern Nigeria.[19,20] This study therefore, sought to assess the knowledge and attitudes about the NHIS among informal workers in Jos-Jarawa Council Ward of Jos north local government area (LGA) in Plateau State (northern Nigeria), as no information related to this topic exist about informal workers in this area. The study findings should provide valuable insights to support the current scale-up efforts of government to improve the penetration and uptake of health insurance among the rapidly growing informal sector of the country.

Materials and Methods

The study used a descriptive, cross sectional design and was undertaken in Jos-Jarawa Council Ward, following random selection. It is one of 14 Council Wards of Jos North LGA, Plateau State, North central Nigeria. Plateau State has 17 LGAs, with Jos North as the capital, with a population of 429,300. Data related to socio-economic characteristics of respondents and their knowledge of and attitudes towards the NHIS were collected from 165 informal workers, using adapted, interviewer administered, semi structured questionnaires, pretested among artisans in Kwang area of Jos-South LGA. The minimum sample size was determined by the formula of Cochran[21] as given below:

$n \leq z^2pq/d^2$

Where,

n≤ Minimum sample size

z≤ Standard deviate at 95% confidence interval ≤ 1.96

p≤ Prevalence of individuals with knowledge of National Health insurance scheme (based on previous study in Gwafan ≤ 11% [22]

q≤ Complementary probability≤ 1-p ≤ 1-0.11 ≤ 0.89

d≤ Absolute precision (error tolerated) ≤ 0.05

A 10% none response rate was allowed, giving a final n≤ 165

The calculated sample size was prorated across 9 stratified areas in the council ward, based on political pooling units, and included Lamingo, Katon Rikos, Cele Bridge, Tina Junction, Dutse Uku, Baptist, St. Micheal, Gwash and Yan Trailer. A total of 18 artisans were conveniently selected, in the absence of a sampling frame, from each of the settlement areas to make the required sample size. Apprentice artisans were excluded from the study.

Data obtained from research subjects were checked for completeness, cleaned, and imputed to Epi Info version 3.5.4. Statistical software for analysis. Qualitative data such as sex, tribe, educational level, religion, and marital status were presented as frequencies and percentages, while quantitative variables were summarized using median. Chi-square (X^2) technique was used to explore significant relationships between socio-demographic variables and knowledge and attitudes at the 5% level, with p value of ≤0.05 taken as statistically significant. Respondents' knowledge of NHIS and attitude towards the scheme were both scored on a scale of 0-10 obtainable from 5 questions each. A score of five and above on each attribute was adjudged as good knowledge or positive attitude, while a mark of less than five was regarded as poor knowledge or negative attitude, respectively. The study was approved by the Research Ethics Committee of Jos University Teaching Hospital (JUTH). Verbal consent was obtained from participants following a full explanation of the nature of the study to each participant, with assurances to withdraw from the study at any point. Study participants were anonymized numerically and information obtained was handled solely by the researchers.

Results

Of the 165 individuals who participated in the study, 111 (67.3%) were males and 32.7% (54) females. Their ages ranged from 15-55 years with a median of 31 years. Young adults aged between 18-44 years comprised 70.3% of subjects. Majority of the respondents were married and Christians. One hundred twenty two (73%) of the respondents had at least attained secondary level education, out of which only 43 (26.1%) had tertiary qualifications. Retail trading was the commonest vocation undertaken, accounting for 32.7% of respondents, followed jointly by tailoring and agro-allied businesses with 17 (10.3%) participants each. Ninety nine (60%) of participants earned below the national minimum wage of NGN30,000.00, followed by those whose incomes were distributed between ₦40, 000.00 - - ₦100, 000.00, and together comprised 87% of the income distribution in the study. These findings are presented in the table 1 below. Twenty seven (16.4%) of the respondents were graded to have good knowledge of NHIS, whilst 83.6% (138) had poor knowledge of the scheme. Similarly, 93.9% (155) of the study participants had negative attitudes towards the scheme (Table 2). There were statistically significant relationships between education and knowledge of NHIS (p≤0.003), education and attitude to NHIS (p≤0.001), and between monthly income and attitude towards NHIS (p≤0.00), by respondents, as depicted in Tables 3- 5.

Table 1:Social, Economic and Demographic Characteristics of Study Subjects

Variables	Frequency (n=165)	Percent
Age(years)		
15-24	47	28.5
25-34	34	20.6
35-44	35	21.2
45-54	29	17.6
55-64	20	12.1
Gender		
Male	111	67.3
Female	54	32.7
Religion		
Christianity	137	83.0
Islam	20	12.1
Traditional	8	4.8
Highest educational attainment		
No formal education	4	2.4
Primary	39	23.6
Secondary	79	47.9
Tertiary	43	26.1
Marital status		
Single	65	39.4
Married	92	55.8
Widowed	2	1.2
Divorced	6	3.6
Occupation		
Retailing	54	32.7
Agro-allied Enterprise	17	10.3
Tailoring	17	10.3
Transportation	11	6.7
Hair Dressing	9	5.5
Mechanic	9	5.5
Carpentry	6	3.6
Others*	42	25.4

* Vulcanizers, Cobblers, Painters, Photographers, Electricians, Bakers, Internet Cafes, Caterers and Welders

Table 2: Income, Knowledge and Attitudes Scores of Respondents

Variable	Frequency (n=165)	Percentage
Monthly Income		
<N50,000	101	61.2
N50,000-N100,000	43	26.1
N100,000-N150,000	14	8.5
N150,000-N200,000	3	1.8
>N200,000	4	2.4
Knowledge Level		
Good	27	16.4
Poor	138	83.6
Attitude Score		
Positive	10	6.1
Negative	155	93.9

Table 3: Relationship between Level of Education and Knowledge of NHIS

Highest Educational Attainment	Good Knowledge	Poor Knowledge	Total
No formal education	0	4	4
Primary	6	33	39
Secondary	9	70	79
Tertiary	16	27	43

$\chi 2=13.6167$; df=3; probability=0.0035.

Table 4: Relationship between Level of Education and Attitude towards NHIS

Highest Educational Attainment	Positive Attitude	Negative Attitude	Total
No formal education	0	4	4
Primary	1	38	39
Secondary	1	78	79
Tertiary	8	35	43

$\chi 2=16.1701$; df=3; probability=0.0010.

Table 5: The Relationship between Average Monthly Income and Attitude towards NHIS

Monthly Income	Positive Attitude	Negative attitude	Total
Less than N50,000	3	98	101
N50,000-N100,000	1	42	43
N100,000-N150,000	3	11	14
N150,000-200,000	1	2	3
Above N200,000	2	2	4

$\chi 2 = 26.0393$; df = 4; probability = 0.0000.

Discussion

The dominance of males in this study is similar to the findings reported from Lagos and Osun states of Nigeria.[20,23] The preponderance of males in the informal sector may be due to the nature of the activities in the sector, often requiring physical efforts. The subset of married individuals found may reflect the burden of meeting up with family responsibilities, while disproportionately high numbers of Christians in the study reflects the predominant religion in the state.

The modal level of educational attainment was secondary education and may explain why most of the artisans in this study were more into retailing of commodities, followed by tailoring and agro-allied business. These business lines do not require advanced learning and corroborates with the Lagos findings.[20]We found that most of the respondents earned less than ₦50,000.00 monthly, as similarly reported in the Lagos study, but higher than the monthly earnings of artisans in Osun and Edo States respectively.[23,24] These differences could be attributed to the rural settings of these studies and the possible effects of inter-temporal devaluation and inflationary effects on the economy.

The study found a poor knowledge of the NHIS among study participants, a factor blamed for thelow participation of informal workers in prepayment schemes, especially, in developing countries.[25,26] This contrasts the high awareness reported among artisans in south western Nigeria.[14,23] The difference may be the general low literacy levels in the northern part of country, relative to the south west,[27] as well as the slow buy into the state health insurance scheme by the Plateau State government. A key factor determining enrolment into prepayment schemes is said to be the general attitudes held by the population about the scheme.[28] This study found a high percentage of participants holding negative attitude to the NHIS, and supports the negative attitudes of subjects reported in studies from other states in Nigeria and similar global settings.[20,24,26] These negative behaviours could be the result of poor knowledge of the scheme discovered in this and other related studies and the perceived poor governance culture and pervasive corruption associated with public institutions.[29]

Monthly income and attitude towards NHIS were also significantly related. In Kenya and South Africa, econometric studies of the relationship between socio-demographic and socio-economic household factors and health insurance ownership have also shown that individuals with higher education and higher income were more likely to partake in health insurance and hold positive attitude.[30,31]

It has been revealed in this study that low knowledge of the NHIS among informal workers along with poor attitudes are key barriers to NHIS enrolment in the study area. Studies among informal workers in Kenya have shown that people generally are favourably disposed to the concept of health insurance when design features of the scheme are adapted to their needs and preferences.[10,32] These features have embed accurate, adequate and accessible health insurance information for potential enrolees, that maximizes the prospects of replacing misconceptions about insurance. Enhanced insurance literacy should provide credible and reliable information for rational decision making concerning health insurance participation and improve attitudes towards the scheme.

Further, available evidence suggests that several developing countries, with large informal sectors, with low and irregular incomes, whilst attempting to expand coverage through contributory schemes have not been successful, occasioned by difficulties in collecting premiums and high administrative costs.[33] Therefore, adapting new design schemes that also incorporate non-contributory mechanisms would be plausible consideration. Non-contributory financing mechanism have been suggested as more appropriate alternatives for sustainably funding health systems for attaining UHC in large informal sector settings, like Nigeria.[34] It is more inclusive, affordable, equitable and easy to implement, as well as capable of generating more predictable and sustainable funds flow for the health system. The contributory health insurance schemes may not be affordable to many low-income earners because contributions are either flat-rated, or the structure of payments are unfavourable to low-income groups.[35] Furthermore, its improved governance systems and financial propriety has the potential to build trust and social solidarity to enhance the fiscal space to better cover the informal sector.[1,36]The generalization of the findings of this study is constrained, in the context of lack of random sampling of participants.

Conclusion

Knowledge of health insurance among artisans in the study area is low, and attitudes held towards the scheme are poor. The study recommends improved health insurance literacy designs and implementation

approaches by all ministries of health and health related departments and agencies, targeting informal workers, to enable artisans better understand and develop more favourable attitudes about social health insurance for accelerated progress towards UHC.

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