IBOM MEDICAL JOURNAL
Vol.14 No.3 July, 2021. Pages 288 - 295
www.ibommedicaljournal.org

Awareness and Enrollment into the National Health Insurance Scheme among Federal Civil Servants in Rivers State, Nigeria

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Abstract

Background: The increasing cost of health care services and development is a major concern to the government in developed and developing countries, hence the need for Health Insurance. The National Health Insurance Scheme (NHIS) of Nigeria was established about ten years ago to achieve universal health coverage within ten years of inception. Currently, the population coverage is less than 10%. Formal sector employees are the primary beneficiaries.
Aim: This study seeks to determine the level of awareness and enrolment, factors associated with enrolment, and identify reasons for non-enrollment into the NHIS among federal civil servants.
Methodology: This was a descriptive cross-sectional study. A multi-stage sampling method was used. Questionnaires were self-administered, data was collated and analyzed using SPSS version 21.0. The Chi-square test was used to test for statistical significance variables. The level of Confidence was set at 95%, and the level of significance was predetermined at a p-value of 0.05.
Results: Out of the 335 respondents interviewed, 334 (99.7%) said that they had heard about NHIS and 280 (83.8%) respondents were enrolled for NHIS. Age was found to be statistically associated with enrollment. Among non-enrollees, the most prevalent reason given was a lack of understanding of the scheme.
Conclusion: Awareness and enrollment into the NHIS by the federal civil servants, in this study were very high. There is a need to improve access to information about the scheme to the populace.

Keywords: Awareness, Enrollment, National Health Insurance Scheme, Federal civil servants

Introduction

Insurance is an indisputable instrument for healthcare funding. It has been utilized by most developed nations in its different structures to subsidize healthcare. It is just of late being applied by poorer developing countries to attend to the obvious issue of deficient healthcare availability which has over the years been financed from public tax collection.[1] In Nigeria, health care is financed through tax revenues, health insurance (social, private, and group-based insurance), subsidies, out-of-pocket, exceptions and deferrals, and sponsorships.[2] Nigeria's National Health Insurance Scheme (NHIS) was formally launched in 2005, backed up by Act 35 of 1999.[3] The NHIS is a social health insurance scheme that gives financial protection to the nationals against unanticipated sickness, and guarantees that each citizen has access to quality health care services. It has different programmes to cover distinctive sections of the population.[3]

Available literature shows that awareness and enrolment levels are high in developed nations but are still low in developing nations including Nigeria. In the United States of America, Private

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Health Insurance (PHI) is a significant source of health care financing and responsible for around 35% of aggregate health expenses. Public use represents 44.9% while Out-Of-Pocket use (OOP) is at 13.5%.[4] There is a tax-based method in the United Kingdom that gives general health care through the nation's National Health Service (NHS). OOP payments are low and occur as a requirement for co-payment, exemptions are in place for the poor, those with chronic illness, and women more than five months pregnant.[5] Despite the successes recorded by these schemes in the developed countries, health insurance schemes in many low and middle-income nations, particularly in Africa are still in their infant implementation stage. In 2014 only about 6 million Nigerians mainly in the formal health sector were enrolled.[6] This poor performance of the NHIS particularly enrollment has been partly ascribed to low awareness of the scheme among the expected beneficiaries.[7] Awareness of the NHIS seems to be higher among federal government employees (formal) since the scheme commenced with them.[8] The low level of health insurance awareness and the delay in extending the scheme to the informal sector among other factors has resulted in imposing a limitation on the National Health Insurance Scheme to realize its goal of Universal Health Coverage.[9] The budgetary allocation for the health sector in Nigeria has persistently fallen far below that which has been a recommendation. The health allocation for 2019 and 2020 was less than 5% and therefore did not meet the 15% mark agreed upon by the African Union in the 2001 Abuja declaration, for countries to improve healthcare delivery in the region.[10]

In many low and middle-income nations like Nigeria, out-of-pocket financial payments by family units represent a substantial part of health care spending.[11] As indicated by the 2010 World Health Statistics by the WHO, out-of-pocket financing of health for Nigeria was high at 95.9 percent.[12] One of the components of universal health care is financial protection, to achieve this there is a need to reduce out-of-pocket payments for health care. Government expenditure on healthcare is also very important to achieving this and needs to be within the recommended proportion.[10] Additionally, a study comparing the NHIS structure in Nigeria with that of Ghana observed that the two nations are comparably lower middle income nations and both had their separate NHIS established about the same time. However, Ghana recorded a sharp decrease in OOP, since the inception of the operation of their NHIS in 2004 from 80% to 66%. Nigeria, on the other hand, has maintained a high OOP expenses levels at 93-95% from 2000 to 2010.[13] Despite the inclusion of various organization in health financing and provision of services at various levels of government: the national government, the state ministry of health, local government implementation of primary health care and even private associations (profit and non-profit), most of the studies available were done in other regions of the country since Rivers state is not yet utilizing the NHIS. Negotiation is ongoing to commence the scheme in the State; therefore this study was done among the federal government staff working in Rivers State who are the recipients of the scheme since it started over a decade ago. This study seeks to determine the level of awareness and enrolment, factors associated with enrolment, and identify reasons for non-enrollment into the NHIS among federal civil servants.

Materials and methods

Study Area: This study was carried out in Rivers State, the south South geological zone of Nigeria. Its capital and largest city, Port Harcourt, is economically significant as the centre of Nigeria's oil industry. Port Harcourt is a cosmopolitan city with individuals from everywhere throughout the world working in the oil business. Health care funding is largely through OOP and Private Health Insurance, Rivers State Civil Servants are yet to commence participation in the NHIS.

Study Design: This was a descriptive, cross-sectional study.

Study Population: These were all Civil Servants employed by the federal government in the State

Inclusion Criteria: All civil servants who were employed by the federal government for at least 6 months, who did not have alternative health insurance

Exclusion Criteria: Those who were unwilling or too ill to take part in the study.

Sample Size Determination: The sample size was estimated using the formula for descriptive study.[14] The proportion from a previous study was 72.8%.[15]

Margin of sampling error tolerated at 95% degree of confidence was set at 5%. Adjusting for non – response rate of 10% a total of 335 respondents were estimated for the study.

Sampling Technique: A multi-staged sampling process was used to select respondents for the study.

Stage one: Selection of federal ministries, parastatals, and agencies by simple random sampling. A sampling frame of all the federal ministries, parastatals, and agencies in Rivers state was obtained from the Federal Bureau of Statistics (FBS) at the federal secretariat.

Stage two: Proportionate allocation of respondents to chosen ministries, parastatals, and agencies was carried out.

Stage three: Selection of participants: The nominal roll of each of the federal ministries, parastatals, and agencies were used as a sampling frame, from which eligible staff were randomly selected from each ministries, parastatals, and agencies, using the balloting technique.

Instruments for Data Collection: The instrument used in this study was a semi-structured questionnaire developed by the researcher. The questionnaire consisted of open and close-ended question which was used to elicit relevant information.

The questionnaire consisted of four sections: Section A contained 14 questions on personal data of the respondents; Section B contained 9 questions on awareness and enrolment of NHIS;

The questionnaire was pre-tested among 30 federal staff in another federal government institution in the State. Responses were observed and appropriate amendments were made.

Data Collection and Analysis: Two field assistants distributed the self-administered questionnaires to the respondents at work after informed consent was obtained for 4 weeks in August 2017. The majority of the respondents filled the questionnaires on-site while others were retrieved from the respondents after one week. At collection, the filled questionnaires were closely checked for completeness and given back in some cases to respondents to fill in the missing information. Data was edited, collated, and entered into the 2013 Microsoft Excel Data Sheet, after which it was exported into the International Business Machine (IBM) Statistical Package for Social Sciences (SPSS) version 21.0 statistical software for analysis. Descriptive statistics were computed and presented using tables and charts. The Chi-square test was used to test for association. The level of Confidence was set at 95%, and P-value < than 0.05 was considered to be statistically significant.

Results

A total number of 360 questionnaires were distributed to randomly selected Federal Civil Servants in Rivers State, 342 of the questionnaires were retrieved and assessed for completeness and consistency, and 335 of the consistent and filled questionnaires were analyzed, giving a response rate of 93.1%.

Table 1: Socio-demographic characteristics of respondents

Table 1 shows that slightly more than half 172 (51.3%) were males and 163 (48.7%) were females. The majority 140 (41.8%) of the respondents were between 36-45 years of age. Most, 292 (87.2%) of the respondents had a tertiary level of education. The majority of the respondents 261(77.9%) were married, 64 (19.1%) of them were single 4 (1.2%) were divorced and 6 (1.8%) were widowed.

Respondent's salary grade level was categorized into three; those between grade 1 and 6 (which constituted 31(9.3%) of the respondents), those between grade 7 and 12 (which constituted 282 (84.2%) of the respondents), and those between grade 13 and 17 (which constituted 22 (6.6%) of the respondents). More than a third 134 (40.0%) received a monthly income of between N50,001 and N100,000.

About one-third of the respondents have household sizes of 5 to 6 (117; 34.9%).

Table 2: Awareness and enrollment into the NHIS by the respondents

Table 2 shows that a majority of 334 (99.7%) reported that they had heard about NHIS before. About half, 158 (47.3%) heard from friends and colleagues, one third 113 (33.8%) from seminars and conferences, less than a tenth 30 (9.0%) from radio and television, and 4 (1.2%) from newspapers. Twenty-two (6.6%) of the respondents however reported that they got to know about the scheme after they were officially enrolled into the scheme by their institution, and 7 (2.1%) gave other varying sources of knowledge about the scheme such as

Table 1: Socio-demographic characteristics of respondents

Variable N=335	Frequency	Percentage (%)
Age (years)		
≤ 25	14	4.2
26-35	92	27.5
36-45	140	41.8
46-60	88	26.3
>60	1	0.3
Gender		
Male	172	51.3
Female	163	48.7
Educational status		
No formal education	1	0.3
Primary	2	0.6
Secondary	40	11.9
Tertiary	292	87.2
Marital status		
Single	64	19.1
Married	261	77.9
Divorced/separated	4	1.2
Widowed	6	1.8
Religion		
Christianity	318	94.9
Islam	17	5.1
Monthly income		
≤ 50,000	50	14.9
N50,001-N100,000	134	40.0
N100,001-N150,000	91	27.2
N150,001-N200,000	41	12.2
>N200,000	19	5.7
Size of household		
1-6	285	85.1
≥ 7	50	14.9

posters.

Most 280 (83.8%) of the respondents have been enrolled for the NHIS. Among the enrollees, 114 (40.7%) have been on the scheme for 1-5 years and 105 (37.5%) have been on it for 6-10 years. For the 54 (16.2%) respondents who were not enrolled with the scheme, about half 31 (57.4%) of them were not enrolled because they don't understand how the scheme works, 8 (14.8%) were not enrolled because they felt it was not efficient, few 5 (9.3%) said they do not trust the government, and very few 4 (7.4%) reported that they were not interested, while 6 (11.1%) gave other varying reasons such as not knowing when the registration took place. The majority 196 (70.0%) of those who were registered with the scheme had their registration cards.

Table 3: Relationship between socio-demographic variables and enrollment

Table 3 shows a statistically significant relationship between age and enrollment P=0.004. Other variables did not show any significant relationship with enrollment.

Table 2: Awareness and enrollment of the NHIS scheme among respondents

Variable	Frequency	Percentage
Heard about NHIS		
Yes	334	99.7
No	1	0.3
Total	335	100.0
Source of information about NHIS		
Friends and colleagues	158	47.3
Television and radio	30	9
Seminar and conference	113	33.8
News paper	4	1.2
Was officially enrolled	22	6.6
Others	7	2.1
Total	334	100.0
Have staff clinic		
Yes	160	47.8
No	175	52.2
Total	335	100.0
Staff clinic operates NHIS (N=160)		
Yes	94	58.8
No	52	32.5
I don't know	14	8.7
Total	160	100.0
Know hospitals or clinics that operates the NHIS		
Yes	282	84.4
No	52	15.6
Total	334	100.0
Have been enrolled in the NHIS		
Yes	280	83.8
No	54	16.2
TOTAL	334	100.0
How long you've been enrolled for NHIS (N=280)		
Can't remember	15	5.4
Less than 1 year	13	4.6
1-5 years	114	40.7
6-10 years	105	37.5
>10 years	33	11.8
TOTAL	280	100
Have collected card		
Yes	196	70
No	84	30
TOTAL	280	100.0
Why you've not enrolled for NHIS (N=54)		
I don't understand how it works	31	57.4
They are not efficient	8	14.8
I'm not interested	4	7.4
I mistrust government	5	9.3
Others	6	11.1
TOTAL	54	100.0

Table 3: Relationship between socio-demographic variables and enrollment

Variable	NHIS Enrollment		χ2	df	p-value
	Yes (%)	No (%)			
Age group (years)					
18-25	13	0		4	0.004
26-35	68	24			
36-45	116	24			
46-60	82	6			
61 and above	1	0			
Gender : Male	101 (49.8)	37 (48.1)	0.065	1	0.799
Female	102 (50.2)	40 (57.9)			
Educational status					
No formal education	1 (0.5)	0 (0.0)	2.442	3	0.486
Primary	1 (0.5)	1 (1.3)			
Secondary	30 (14.8)	7 (9.1)			
Tertiary	171 (84.2)	69 (89.6)			
Marital status					
Single	35 (17.2)	13 (16.9)	0.119	3	0.989
Married	161 (79.3)	61 (79.2)			
Separate/divorced	3 (1.5)	1 (1.3)			
Widowed	4 (2.0)	2 (2.6)			
Monthly income					
N18,000-N50,000	32 (15.8)	10 (13.0)	4.87	4	0.301
N51,000-N100,000	87 (42.9)	31 (40.3)			
N101,000-N150,000	62 (30.5)	20 (26.0)			
N151,000-N200,000	16 (7.9)	12 (15.6)			
>N200,000	6 (3.0)	4 (5.2)			

Discussion

This study has looked into the awareness and enrollment and associated socio-demographic variables among the federal civil servants under the national health insurance scheme in Rivers State. It has found that awareness about NHIS was high among federal civil servants in the State. Similar findings were reported by Adewole et al in Ilorin Kwara state where they conducted a study among the formal sector workers, in the three tiers of government, they observed that awareness among the federal staff was high.[7] Comparable to our findings are studies, which reported high awareness among respondents in South eastern States and Kano State respectively.[16,17] This study is similar to a study from South-Africa by where awareness was also found to be high.[18] The reasons for the high awareness of NHIS among the federal civil servants might be due to the geographical location of the study area which is located in a metropolitan area (urban) and high level of education amongst the respondents. In addition to this the NHIS scheme commenced with federal workers and at the time of this study was more than 10 years old. Contrary to our finding, some studies have reported low awareness of the NHIS among civil servants in the state and University staff.[1,19]

The low level of awareness in these studies might be due to the scheme being voluntary at the time of the study, and States may not have started the implementation of the NHIS since the scheme started with the federal government staff. Also, this study noted that friends and colleagues were the principal sources of information about NHIS

indicating that those who register earlier and used the services were able to share their positive experiences with their colleagues and encourage them to enroll. This is similar to findings among graduates participating in the national youth corps scheme who listed their school authority, family, and friends as the major source of information.[20]

This study shows a high proportion of Federal civil servants enrolled in the National Health Insurance Scheme. Slightly more than half of our study respondents enrolled in the last 5 years. This compares with the study in Ilorin, where the federal civil servants had the highest enrolment rate in the NHIS compared to the State and local government staff.[7] Similar high rates were found among recent graduates who reported that they had benefitted from the NHIS scheme.[20] The observed high enrolment rate may be connected with recent drives by the government to increase the number of federal employees enrolled under the scheme and the call by various stakeholders to make the scheme compulsory for formal sector workers and not voluntary.[3] Availability of a payroll register for formal sector workers makes it easy to enroll them in the scheme. In addition, the federal government has not yet commenced deduction from its staff

Among non-enrollees the most prevalent reason given was lack of understanding of the scheme, other studies have reported low income, religious-cultural beliefs, and differences in health-seeking behaviour.[21,22] In this study, only age was found to be associated with enrollment in the NHIS while other socio-demographic factors such as income, marital status, number of children, and religion had no statistically significant association. This was comparable to findings from a study among women of reproductive age; age was one of the variables that were found to be associated with enrollment in the NHIS.[23] Similarly, a study in Ghana reported that older respondents were more likely to enroll in a health protection scheme.[22] Studies from Kenya by Kimani et al and South Africa by Kirigia et al. likewise established that age was an important determinant of enrolment in health insurance.[24,25] This observation may be because older people are more conscious of their health, tend to be more vulnerable to illnesses, and, thus, require medical care more often as compared to younger people in the household.

Study Limitation

This was a cross-sectional survey, therefore causality between and among the study variables could not be established.

Conclusion

Awareness and enrollment into the NHIS by the federal civil servants, in this study, was very high. Among non-enrollees, the most prevalent reason given was a lack of understanding of the scheme. Older age was found to be statistically associated with enrollment. Income was fond to be a significant predictor of enrollment. There is a need to improve access to information that will help the workers improve their understanding of the scheme as well as ensuring that the enrollment rate does not drop to enable the attainment of universal coverage in the country.

References

1. Adibe MO, Udeogaranya PO, Ubaka CM. Awareness of National Health Insurance Scheme (NHIS) activities among employees of a Nigerian University", Int. J. Drug Dev. & Res., 2011, 3(4): 78-85.
2. Onoka CA, Onwujekwe OE, Uzochukwu BS, Ezumah NN. Promoting universal financial protection: Constraints and enabling factors in scaling-up coverage with social health insurance in Nigeria. Health Res Policy Syst. 2013; 11:20.
3. Adeniji F. National Health Insurance Scheme in Nigeria; Progress towards Universal Coverage Asian Journal of Medicine and Health.2017;3(4):1-2.
4. Smith S, Newhouse JP, Freeland M. Income, insurance, and technology: why does health spending outpace economic growth? Health Affairs, 2009; 28(5), 1276-1284.
5. Rice T, Quentin W, Anell A, Barnes AJ. Rosenau P, Unruh LY et al. Revisiting out-of-pocket requirements: trends in spending, financial access barriers, and policy in ten high-income countries. BMC Health Serv Res 2018: 18, 371 https://doi.org/10.1186/s12913-018-3185-8.
6. Eboh A, Akpata GO, Akintoye AE. Health Care Financing in Nigeria: An Assessment of the National Health Insurance Scheme (NHIS)

European Journal of Business and Management. 2016:8;27: 24-34.
7. Adewole DA, Dairo MD, Bolarinwa OA. Awareness and Coverage of the Health Insurance Scheme among formal sector workers in Ilorin Nigeria. Afr: J .Biomed Res.2016:19.
8. Eyong AK, Agada PO, Asukwo EO, Irene C. Awareness of National Health Insurance Scheme (NHIS) and Quality of Health Care Services among Civil Servants in Cross River State, Nigeria. Research on Humanities and Social Sciences. 2016; 6,:.13, 1-9.
9. Sanusi R, Awe AT. Perception of National Health Insurance Scheme (NHIS) BY Health Care Consumer in Oyo State, Nigeria. Pakistan Journal of Social Sciences.2009: 6: 48-53.
10. Adebisi YA, Umah JO, Olaoye OC, Alaran AJ, Sina-Odunsi AB, Lucero-Prisno DE et al. Assessment of Health Budgetary Allocation and Expenditure Toward Achieving Universal Health Coverage in Nigeria. Int J Health Life Sci. 2020 ; 6(2):e102552.
11. Federal Ministry of Health. Strategic Review of Nigeria's National Health Insurance Scheme. Abuja Nigeria; 2014.
12. World Health Organization. World Health Report: Health systems financing, the path to universal coverage', World Health Organization: Geneva;2010.
13. Nixon JA, Odeyemi IA. Assessing equity in health care through the national health scheme of Nigeria and Ghana: a review-based comparative analysis. International journal for equity in health. 2013: 8 (2).
14. Bluman, AG. Elementary statistics: A step by step approach, 7thed. New York: Mcgraw Hill Companies; 2009.
15. Agba, MS. Perceived Impact of the National Health Insurance (NHIS) among Registered Staff in Federal Polytechnic, Idah, Kogi State, Nigeria. Studies in Sociology of Science. 2010: 1 (1) : 44-49.
16. Okaro AO, Ohagwu CC, Njoku J. Awareness and Perception of National Health Insurance Scheme (NHIS) Among Radiographers in South East Nigeria. American Journal of Scientific. 2010: 8 :18-25.
17. Jibo O. Awareness and utilization of NHIS among public servants in Kano. Ahmadu Bello University, Zaria, Nigeria (Unpublished thesis). 2011.
18. Geoffrey S, Muyanga S, Witthuhn J, Nyasulu P. Public awareness and knowledge of the National Health Insurance Scheme in South Africa.

Pan African Medical Journal.2015:22-19.

19. Ndie A. Awareness of NHIS in Enuguand Abakaliki. Social Science Medicine. 2013:3(43):459-471.
20. Michael GC, Grema BA, Aliyu I, et. al Awareness, knowledge, and perception of thenational health insurance scheme among national youth service corp members in Kano, Nigeria.Niger Med J 2020;61:201-205.
21. Justin Giovannelli, Emily Curran. Factors Affecting Health Insurance Enrollment Through the State Marketplaces: Observations on the ACA's Third Open Enrollment Period Commonwealth Fund. Available at www.commonwealthfund.org/publications/issue-briefs/2016/jul/factors-affecting-health-insurance-enrollment-through-state. Assessed, 1st December 2020.
22. Adei D, Agyemang-Duah W, Mensah AA. Predictors of enrollment in a health protection scheme among informal sector workers in Kumasi Metropolis of Ghana. BMC Res Notes: 2019: 12:758 https://doi.org/10.1186/s13104-019-4782-2.
23. Areegbeshola BS, Khan SM. Predictors of enrolment in the National Health Insurance Scheme among women of reproductive age in Nigeria. Int J Health Policy Manag. 2018;7(11):1015–1023.
24. Kimani J K, Ettarh R, Kyobutungi C, Mberu B, &Muindi, K. Determinants for participation in a public health insurance program among residents of urban slums in Nairobi, Kenya: results from a cross-sectional survey. BMC Health Services Research. 2012:12:66.
25. Kirigia JM, Sambo LG, Nganda B, Mwabu, GM, Chatora R, Mwase T. Determinants of health insurance ownership among South African women. BMC Health Services Research2005: 5(1) :17.