Awareness and Perception of Resident Doctors towards National Health Insurance Scheme in a Tertiary Hospital

*Nzube Anthony Ilochonwu[1], Michael A. Adedigba[2]

[1]Department of Preventive Dentistry, University of Port Harcourt Rivers State and [2]Department of Preventive and Community Dentistry, Obafemi Awolowo University Ile-Ife, Osun State.

*Correspondence: nzube.ilochonwu@uniport.edu.ng

ABSTRACT

Objective: Toassess the awareness and perception of resident doctors in a tertiary hospital concerning the National Health Insurance Scheme in Nigeria.

Methods: Descriptive cross-sectional study of all the junior resident doctors with two years of training and yet to attempt the Part one Fellowship examinations, prior to this study. A self-completed questionnaire was employed for data collection. The analysis was done with SPSS version20. The results were expressed as frequencies, means, weighted mean and standard deviations.

Results: The study had 75% response rate, with 63.8% male and 36.2% female respondents. The mean score for the knowledge items ranged from 3.00 – 4.39 (± 0.69 – 1.23). The respondents demonstrated 'moderately aware knowledge of the Scheme with a weighted mean score of 3.73. The estimated population mean score at 95% confidence interval was within 3.00 ± 0.25 for the lowest mean score and 4.39 ± 0.15 for the highest mean score.

The study participants demonstrated positive perception towards the Scheme with only 27.3% of the perception items negative (-0.28 – -0.59) while the positive perception was indicated in 72.7% of the items. The weighted mean score of perception of the subjects was 0.38.

Conclusion: The resident doctors demonstrated moderate knowledge about the NHIS but there is need to update their knowledge regarding the utilisation of the Scheme's benefits. Their perception concerning the Scheme was positive and good but they expressed concern about low coverage, non-availability of essential drugs and non-provision of surgical services.

Keywords: National Health Insurance, Healthcare Costs, Health financing, Universal coverage, Resident doctors, Nigeria.

The Nigerian Health Journal, Volume 17 No 2, April to June, 2017
www.tnhjph.com
A Publication of Nigerian Medical Association, Rivers State, Nigeria

17

INTRODUCTION

Good health permits people to carry out their daily activities and as such health status is directly related to the demand for healthcare.[1] Certain factors have been identified to influence healthcare demands by consumers and they include; age, sex, illness, race, beliefs, socioeconomic status and education.[2] Free health care was instituted in some African States like Ghana, Tanzania and Nigeria at independence with tax-financed public healthcare systems.[3,4] But with the low economic growth and rapid population explosion, the free healthcare has become unsustainable. This led to the introduction of out-of-pocket payments and user fees including health insurance to raise additional revenue.[5] The quest to eliminate and curb the risk of exorbitant healthcare cost has led consumers to purchase health insurance for their health needs by paying a fixed amount periodically.

Social health insurance is an arrangement in which contributions are made by individuals or groups to a fund which is responsible for purchasing covered services from healthcare providers on their behalf.[6] It focuses on insurance against medical expenditures based on the assumption that illness entails monetary losses.[7] The consumer, therefore, seeks protection against the risk of healthcare cost by accessing good healthcare at affordable price. In Nigeria, the social health insurance was introduced as the National Health Insurance Scheme (NHIS). The Scheme was established under Act 35 of 1999 with the aim of providing easy access to healthcare for all Nigerians at an affordable price through the prepayment system.[8] It became imperative in Nigeria owing to the dwindling economic resources and rising cost of health, over dependence and pressure on government-provided health facilities, and the poor state of the nation's healthcare services.[9] The Scheme was designed to facilitate healthcare financing through the pooling of resources and judicious utilisation of financial risk protection and cost-sharing for people seeking healthcare. Some of the other objectives of NHIS were to reduce the inequities in healthcare provisions, ensure standard healthcare delivery, maintain efficiency in health sector and ensure the availability of funds.[8] NHIS which was officially launched in 2005, has not attained the objective of universal coverage as less than 8% of Nigerians employed in the formal sector were covered under the Scheme.[10] The inability of the Nigerian health system to achieve the universal coverage may contribute to the sub-optimal healthcare delivery, low equity and limited access to healthcare.[11,12]

There are various stakeholders of the Scheme that play different roles to ensure effectiveness and maximum efficiency of the Scheme. The government sets the guidelines and protects rights and obligations of stakeholders. The employers, in the public organisations are required to contribute 3.5% of the employees' gross pay whereas in the private organisations contribute 10% of the employees' basic salary.[13] The employees, in public sector contribute 1.75% of their gross salary while those in private organisations contribute 5% of their basic salary.[13] The other stakeholders are health management organisations, the board of trustees and healthcare providers. Providers are major stakeholders in the Scheme both in the areas of provision and access to healthcare for users. Investigators have

The Nigerian Health Journal, Volume 17 No 2, April to June, 2017
www.tnhjph.com
A Publication of Nigerian Medical Association, Rivers State, Nigeria

18

postulated that the successful implementation of NHIS may depend on the perception and attitude of healthcare providers.[14,15]They also influence the quality and cost of health care by determining the nature and quality of treatment required.[10]

Investigators have studied consumers' knowledge about their insurance policies; with gaps on their knowledge concerning the type of insurance coverage and unanswered questions about their knowledge of the benefits.[12,15-17]Consumers were found to have uneven understanding about their health insurance benefits and cost-sharing which was far from perfect.[18,19]The focus of most researchers has been mainly on one of the stakeholders of social health insurance, the healthcare consumers and the other stakeholders are neglected though their input is also vital.[9,12,16,17,20,21] There are few studies that investigated the knowledge of healthcare providers concerning the social health insurance operating in Nigeria, obviously none focused on the resident doctors.[14,15,22] The perception of these important stakeholders cannot be ignored since their opinion is expedient to the attainment of the overall goal of the health insurance. If they were averse to the Scheme, they could influence negatively the enrolment as well as the utilisation by members and invariably the impact of the Scheme on its users. The junior resident doctors constitute a greater proportion of the various cadres of doctors working in the Nigerian health system. They are virtually in touch with every patient seen in their various units. The doctors can act as the agents of change by motivating new entrants into the Scheme.

The objective of this study, therefore, was to assess the awareness and perception of junior resident doctors towards NHIS. This will help to bridge the knowledge gap of the resident doctors towards NHIS and improve their contributions to the attainment of its objectives.

Materials and Methods

This descriptive cross-sectional survey involved junior resident doctors in Obafemi Awolowo University Teaching Hospital Complex Ile-Ife, Osun State Nigeria. The 92 resident doctors who commenced residency training in 2010 and had not attempted the Part one fellowship examinations, constituted the study population. The doctors were approached at their duty posts and only the consenting participants were administered the questionnaire. A total of 92 questionnaires were distributed and 69 properly completed questionnaires were found usable.

The modified version of a semi-structured and self-administered questionnaire which was employed for similar study among civil servants was used for the data collection.[18]The questionnaire encompassed information on demographics, knowledge and perception about NHIS. The knowledge section contained statements on different aspects of the Scheme with responses presented on a Likert scale. The components comprised 'stronglyunaware' – 1, 'unaware' – 2, 'not sure' – 3, 'aware' – 4, and 'strongly aware' – 5. The perception section consisted of items with responses on a Likert scale of 'strongly disagree' – -2, 'disagree' – -1, 'indifferent' – 0, 'agree' – 1, and 'strongly agree' – 2.Collected data were processed, collated and entered into the Statistical

The Nigerian Health Journal, Volume 17 No 2, April to June, 2017
www.tnhjph.com
A Publication of Nigerian Medical Association, Rivers State, Nigeria

19

Package for Social Sciences (SPSS 20.0, IBM SPSS statistics, Armonk New York) for analysis. Results were expressed in frequencies, percentages, means, standard deviation and standard error of the mean. The results of the analysis were also graphically represented in tables and bar chart.

Five represented the highest mean score and one was the lowest on each of the 5 – point scales for awareness. The mean score of each item was used to reflect the level of awareness of the study respondents. The mean score of an item less than or equal to 3.0 represented 'unaware', >3.0 – 3.6 'marginally aware', >3.6 – 4.3 'moderately aware' and > 4.3 – 5.0 'highly aware'. The weighted mean score was determined by summing the mean scores of all the items and dividing it by the number of questions. This method was adapted from a study that investigated the awareness of NHIS activities among employees of a Nigerian university.[23]The standard deviation was calculated to express the variability of the item scores from the mean scores. The standard error of the mean (SEM) provided the estimate of range of values within which the population mean would likely fall. The SEM multiplied by 1.96 ± mean score of an item gives the range of values within which the population mean is found at 95% confidence interval.

The mean score for each item measuring the perception levels of the study participants was either positive (0.1 – 2) or negative (-0.1 – -2). The positive mean score indicated participants 'agree' and negative mean score, participants 'disagree' with an item. Thus, positive mean scores were assumed to demonstrate positive perception whereas negative mean scores denoted negative perception. The weighted mean score was the total mean scores divided by the number of items.

Ethical approval for the study was given by the Ethics and Research Committee of Obafemi Awolowo University Teaching Hospitals' Complex (Registration Number National: NHREC/27/02/2009a).

Results
Sixty-nine out of the 92questionnaires administered to study population were returned well-completed, constituting 75% response rate. Table 1 presents the socio-demographic characteristics of the study respondents, indicating that about two-thirds 44 (63.8%) of the study participants were males and the remaining 25 (36.2%) females. The age distribution of the respondents ranged from 24 – 43 years with the mean age of 33 ± 3.97 years, and more than half (53.6%)of them were within the 30 – 34 years–oldgroup. Almost three-quarters (72.5%) of the respondents were married and 76% of the married subjects had between one and four children. Slightly less than three-quarters (72.5%) of the participants were enrolled with the Scheme.

The Nigerian Health Journal, Volume 17 No 2, April to June, 2017
www.tnhjph.com
A Publication of Nigerian Medical Association, Rivers State, Nigeria

20

Table 1: Demographic characteristics

Characteristics	Frequency	Percent
Age in years		
<30	10	14.5
30 – 34	37	53.6
35 – 39	17	24.6
>39	5	7.2
Sex		
Female	25	36.2
Male	44	63.8
Marital status		
Single	19	27.5
Married	50	72.5
Number of children		
None	12	24.0
1 – 2	30	60.0
3 – 4	8	16.0
Total	50	100.0
Registered with NHIS	50	72.5

Table 2: Knowledge of respondents concerning NHIS

Variable	Mean	SD	SEM
NHIS is a social health insurance programme	4.07	1.06	0.12
NHIS (enabling law) was enacted in 1999	3.35	0.85	0.10
NHIS started operations in 2005	3.36	0.90	0.10
Unemployed can register with NHIS	4.39	0.69	0.08
Only government workers can register with NHIS	3.16	1.19	0.14
Government, employers and workers fund NHIS	3.96	0.99	0.11
NHIS covers four biologic children below 18 years	4.01	1.03	0.12
NHIS covers four biologic children above 18 years	4.32	0.81	0.09
Enrolee can use NHIS on the same day of registration	3.00	1.13	0.13
Weighted mean score	3.73		

The Nigerian Health Journal, Volume 17 No 2, April to June, 2017
www.tnhjph.com
A Publication of Nigerian Medical Association, Rivers State, Nigeria

21

Table 2 highlights the knowledge of the study participants concerning NHIS; showing the mean score, standard deviation and the standard error of the mean for each of the knowledge item. It was found that 44.4% of the mean scores of these knowledge items indicated 'marginally aware' and 'moderately aware' respectively and only one (11.1%) item specified 'unaware'. The weighted mean score of 3.73, showed the respondents had 'moderately aware' knowledge level about NHIS. The estimated population mean score at 95% confidence interval would fall within 3.00 ± 0.25 for the lowest mean score and 4.39 ± 0.15 for the highest mean score.

Table 3: Perception of respondents towards the Scheme

Variable	Mean	SD	SEM
NHIS has significant impact on health of users	0.74	1.09	0.13
NHIS will reduce the burden of medical bills	0.83	1.07	0.12
NHIS will promote improved health facilities	0.38	1.07	0.12
NHIS will enhance efficiency in health delivery	0.49	1.05	0.12
NHIS will promote equity among the population	0.32	1.24	0.15
Every Nigerian will benefit from NHIS	-0.30	1.33	0.16
NHIS should be for everybody	1.06	1.16	0.14
NHIS will succeed in Nigeria	0.39	0.84	0.10
NHIS has adverse consequences associated	-0.28	0.95	0.11
NHIS should not be discontinued	1.20	1.11	0.13
Level of performance of NHIS is very good	-0.59	1.16	0.14
Weighted mean score	0.38		

The respondents also suggested the various changes they wish to see in the operations of the Scheme. The same proportion (30.4%)of the respondents suggested that all prescribed drugs should be provided, and that universal coverage of all Nigerians should be achieved respectively. Only 1.4% of the subjects felt the operation of Scheme was satisfactory and required no changes (Figure 1).
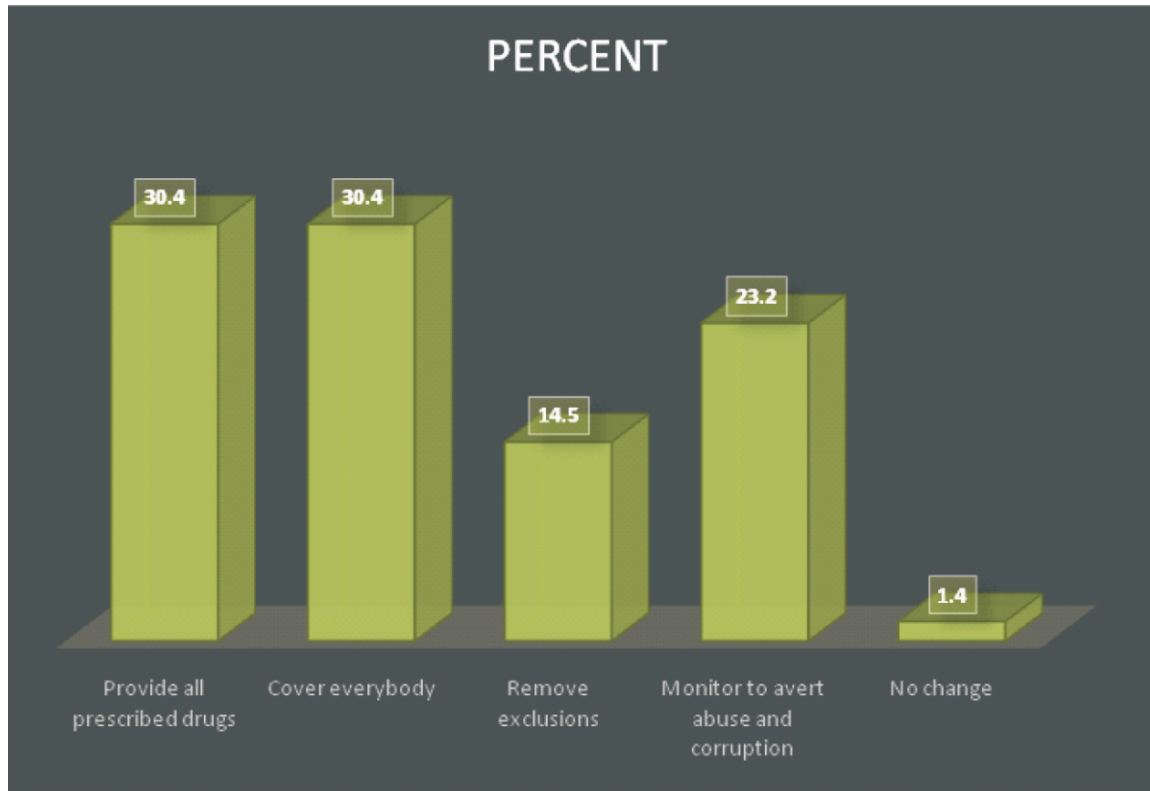
The Nigerian Health Journal, Volume 17 No 2, April to June, 2017
www.tnhjph.com
A Publication of Nigerian Medical Association, Rivers State, Nigeria

22

Figure 1: Respondents' suggested changes to the Scheme

DISCUSSION

Nigeria like most other developing countries had relied largely on tax finance and out-of-pocket payment mechanisms for healthcare services. The situation has necessitated the introduction of social health insurance in these climes. The NHIS started operations in Nigeria with the initial phase for the formal sector with the ultimate goal of attaining universal coverage of the entire population by the year 2015. The proportion of workers employed in the formal sector covered by the Scheme is still less than the government's projected estimate of 8.5%.[10]

The study considered a part of one of the major stakeholders of NHIS, the care givers (junior resident doctors). This group of care givers are training in different specialties of healthcare under the supervision of trainers (Consultants). They are pivotal to healthcare service delivery in tertiary health institutions; almost always in touch with every patient presenting in their respective units. They can play an immense motivational role in the propagation of awareness campaign about the Scheme among their patients and the general public, but they must be well informed about the Scheme to be able to act as the veritable agents of change.

All the study participants knew about the Scheme's existence, but detailed knowledge

The Nigerian Health Journal, Volume 17 No 2, April to June, 2017
www.tnhjph.com
A Publication of Nigerian Medical Association, Rivers State, Nigeria

23

of the Scheme and its operations were at variance. The awareness of the existence of NHIS among the study participants was found to be higher than that of civil servants in Osun and Oyo states with awareness rates of 40% and 87.4% respectively.[12,20] The awareness of national health insurance in Africa showed that study participants in South Africa had 80.3%[24] awareness and 40.7%[21]awareness was found in Uganda. The proportion of respondents registered with the Scheme was higher than 45.9% of radiographers in south-east Nigeria;[15] nurses and teachers 2% and 1% respectively[25], but less than the 83.2% covered by the Scheme among healthcare consumers in Oyo state south-west Nigeria.[12]

The knowledge of the study subjects was better than that of radiographers in another study; 42% of the study respondents knew the year the enabling law was enacted as against 4.5%[15] of radiographers. The study among university employees found they were marginally aware of NHIS and its activities[23] whereas the study participants were moderately aware of NHIS. More than 80% of the respondents knew the beneficiaries of the Scheme contrary to 33% of civil servants.[20]The high awareness and better knowledge of the study participants could be attributed to the fact that health insurance is an important health issue which the doctors invariably are involved in its concerns. Though their knowledge level about the Scheme's operation was moderate; there is still need to reinforce that through periodic workshops and seminars. The study respondents demonstrated poor awareness (mean score of 3.00) on the accessibility of benefits following registration. The 62.3%were not aware that an enrolee cannot

access the benefits on the same day of registration. There is a 90–day processing/waiting period following registration before the enrolee can access the Scheme's benefits.

The perception of the study participants was found to be positive which was consistent with other studies.[15-17,20] Almost two-thirds of the respondents agreed that the Scheme will improve the efficiency of the health system, consistent with the 76% reported among dentists[22] and higher than 50% reported among civil servants[20]. The 70% of the respondents that agreed the Scheme has the potential of improving the health of users was higher than 48% in another study.[17] The sustainability and success of the Scheme are vital to the attainment of the universal coverage and these have been linked to the perception and attitude of the healthcare workers.[14,15] The resident doctors under study demonstrated a positive perception that will likely contribute to the sustenance and success of the Scheme in Nigeria. This was also buttressed by the over 50.0% of the study respondents that agreed the Scheme will succeed in Nigeria, consistent with 51.4% of polytechnic staff,[17] higher than the 20% of nurses[21] and less than the 70.4% of dentists[22]. The high mean scores obtained concerning continuation of the NHIS and that everybody should benefit from NHIS were also strong pointers to the positive perception of the respondents. The suggestions of the study participants to be implemented to help make the Scheme more effective will go a long way to motivate more prospective enrolees. There is the need for the regulatory agency to press it upon the major stakeholders a review of their responsibilities and ensure that these are

The Nigerian Health Journal, Volume 17 No 2, April to June, 2017
www.tnhjph.com
A Publication of Nigerian Medical Association, Rivers State, Nigeria

24

effectively carried out. There should be adequate supply and provision of drugs such that when registered members present their prescriptions, all the drugs will be provided. Also, the study has shown that the resident doctors would want the Scheme to increase the services covered including surgeries. Due to the positive perception exhibited by the participants, they yearn for the attainment of the universal coverage such that all Nigerians would be covered. This goes to show that this group of healthcare workers saddled with the responsibility of consultation of patients in tertiary health facilities can aid education and motivation of yet-to-be-registered members of the public.

Limitation of the study
The sample size seemed small based on the stringent inclusion criteria of the study population. Only resident doctors who had spent at least two years in the residency training prior to the study period and had not attempted the Part one fellowship examinations were eligible for selection. These criteria greatly limited the target population. Though the authors assumed no difference in the knowledge level of the resident doctors based on their specialties, attempt was made to minimize bias by including residents in all the various specialties. The utilisation of the Scheme by the participants was not determined. Study should have investigated reasons for the negative or positive perceptions and attitude to the Scheme.

CONCLUSION
The resident doctors under study had moderate knowledge of NHIS, though they exhibited marginal and moderate awareness concerning the different aspects. Their perception towards the Scheme also was positive and can motivate new entrants into the Scheme. The study population demonstrated that they were fully in support of the sustainability of the Scheme to attain its ultimate goal of universal coverage. There is need to update the knowledge of the doctors periodically concerning NHIS and its activities especially during the update courses. This will aid them to fully assume the position of change agents to their patients and the general public concerning the attainment of the universal coverage by NHIS.

REFERENCES
1. Grossman M. On the concept of health capital and the demand for health. J Polit Econ 1972;80(2):223–55.
2. Collins SR, Davis K, Doty MM, Kriss JL, Holmgren AL. Gaps in health insurance: an all-American problem finding from the commonwealth fund biennial health insurance survey. Commonwealth Fund. 2006;14.
3. McIntyre D, Garshong B, Mtei G, Meheus F, Thiede M, Akazili J, et al. Beyond fragmentation and towards universal coverage: insights from Ghana, South Africa and the United Republic of Tanzania. Bulletin of theWorld Health Organization. 2008;86(11):871-6.
4. Odeyemi I, Nixon J. Assessing equity in health care through the national health insurance schemes of Nigeria and Ghana: a review-based comparative analysis. International journal for equity in health. 2013 Jan 22;12(1):9.
5. World Development Report: Investing in health. World Bank: Washington. 1993.

The Nigerian Health Journal, Volume 17 No 2, April to June, 2017
www.tnhjph.com
A Publication of Nigerian Medical Association, Rivers State, Nigeria

25

6. Kutzin J. Health insurance for the formal sector in Africa. WHO Geneva. 1997.

7. Asheim GB, Emblem AW, Nilssen T. Deductibles in health insurance: Pay or pain? Int JHealthcare Finance Econ 2003;3(4):253–66.

8. NHIS Operational Guidelines. Abuja Nigeria. 2005. Available at http://www.nhis.gov.ng. Accessed 24/06/2016.

9. Owoeye O, OlaiyaS. Effect of health insurance on the demand for healthcare in Oyo State Nigeria. Available from https://www.utwente.nl/igs/research/conferences/2012. Accessed 23/06/2016.

10. Chukwu O. Minister of Health of Nigeria during the Ministerial Briefing on the ministry's scorecard and reports for the year 2012 – 2013 in Abuja. 2013.

11. Otuyemi OD. Orthodontics in Nigeria: Journey so far and challenges ahead. J Orthod 2001;28(1):90–2.

12. Sanusi RA, Awe AT. An assessment of awareness level of National Health Insurance Scheme (NHIS) among healthcare consumers in Oyo State, Nigeria. The SocSci 2009;4(2):143–8.

13. NHIS Website. NHIS Programmes – The Formal Sector Social Insurance Programme. Available at https://www.nhis.gov.ng/formal-sector-social-health-insurance-programme-fsship-/. Accessed June 23, 2017.

14. Onuekwusi N, Okpala CO. Awareness and perception of the National Health Insurance Scheme (NHIS) among Nigeria healthcare professions. Journal of College of Medicine 1998;3(2):97–9.

15. 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 Research 2010;8:18–25. ISSN 1450-223X. Available from http://www.eurojournals.com/ajsr.htm. Accessed 10/07/2016.

16. Sanusi, RA, Awe AT. Perception of National Health Insurance Scheme (NHIS) Healthcare consumers in Oyo State, Nigeria. Pakistan Journal of Social Sciences 2009;6(1):48–53.

17. Agba MS. Perceived impact of the national health insurance schemes (NHIS) among registered staff in federal polytechnic, Idah, Kogi state Nigeria. Studies in Sociology of Science 2010;1(1):44–9.

18. Sinaiko AD, Ross-Degnan D, Soumerai SB, Lieu T, Galbraith A. The experience of Massachusetts shows that consumers will need help in navigating insurance exchanges. Health Affairs. 2013 Jan 1;32(1):78–86.

19. Loewenstein G, Friedman JY, McGill B, Ahmad S, Linck S, Sinkula S, et al. Consumers' misunderstanding of health insurance. Journal of Health Economics. 2013 Sep 30;32(5):850-62.

20. Olugbenga-Bello AI, Adebimpe WO. Knowledge and Attitude of Civil Servants in Osun State South Western Nigeria Towards the National Health Insurance. Niger J ClinPract 2010;13(4):421–6.

21. Chubike NE. Evaluation of National Health Insurance Scheme (NHIS) awareness by civil servants in Enugu and Abakaliki. Int J Med MedSci 2013;5(7):356–8.

The Nigerian Health Journal, Volume 17 No 2, April to June, 2017
www.tnhjph.com
A Publication of Nigerian Medical Association, Rivers State, Nigeria

26

22. Adeniyi AA, Onajole AT. The National Health Insurance Scheme (NHIS): a survey of knowledge and opinions of Nigerian dentists' in Lagos. Afr J Med MedSci 2010;39(1):29–35.

23. 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.

24. Setswe G, Muyanga S, Witthuhn J, Nyasulu P. Public awareness and knowledge of the National Health Insurance in South Africa. Pan Afr Med J 2015;22(1):1–10.

25. Byabashaija AA. The knowledge and views of teachers in government educational institutions in Kampala District on the proposed Social Health Insurance Scheme in Uganda. Health Policy and Development Journal 2009;7:1–9.

The Nigerian Health Journal, Volume 17 No 2, April to June, 2017
www.tnhjph.com
A Publication of Nigerian Medical Association, Rivers State, Nigeria

27