



## **User's Perception and Satisfaction with Services Provided under National Health Insurance Scheme: A Case Study of Academic Staff of Usmanu Danfodiyo University, Sokoto**

**Nasiru Lawal<sup>1\*</sup>, M. M. Maishanu<sup>2</sup> and A. A. Aliyu<sup>3</sup>**

<sup>1</sup>*Katsina State Health Service Management Board, Nigeria.*

<sup>2</sup>*Department of Business Administration, Usmanu Danfodiyo University, Sokoto, Nigeria.*

<sup>3</sup>*Department of Accounting, Usmanu Danfodiyo University, Sokoto, Nigeria.*

### **Authors' contributions**

*This work was carried out in collaboration between all authors. Author NL design the study, performed the statistical analysis, write the protocol and write the first draft of the manuscript. Author MMM managed the analyses of the study. Author AAA managed the literature searches. All authors read and approved the final manuscript.*

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### **ABSTRACT**

**Aim:** To assess user's perception and satisfaction with the National Health Insurance Scheme (NHIS).

**Study Design:** This descriptive cross-sectional study, conducted between October and December 2017, focused on academic staff who was users of NHIS at the Usmanu Danfodiyo University Sokoto, Sokoto state, Northwest Nigeria.

**Methodology:** Two hundred and seventy eight academic staff completed a self-administered questionnaire.

\*Corresponding author: E-mail: [formular32@yahoo.co.uk](mailto:formular32@yahoo.co.uk);

**Results:** Findings revealed that nearly all 276(99.3%) of the respondents were aware of the NHIS but less than half 136(48.9%) enrolled into the scheme. Majority 81(59.6%) of NHIS service users access services at university clinic. About half 148(53%) of the users had poor knowledge of how the scheme works, with 168(60.4%) agreeing that NHIS has provided easy access to healthcare, while 220(79.1%) agreed that it protects families from financial hardship of large medical bills. Out of 136 (48.9%) service users enrolled into the scheme 92(67.6%) were dissatisfied with the process of enrolment while 93(68.4%) were satisfied with the attitude of NHIS staff. With regards to the waiting time at NHIS clinic, 80 (58.8%) were dissatisfied, and in terms of drug administration, 99(72.8%) were dissatisfied with the drugs received at the NHIS pharmacy. Majority 98(72.1%) of the service users rated the overall satisfaction as poor and would not recommend the NHIS services for family members/friends.

**Conclusions:** Based on the findings, it was concluded that the service users overall satisfaction with service provision was poor. It was therefore recommended that periodic survey of user's satisfaction and factors influencing it should be carried out by health Institutions, and the findings used as a guide in policy and decision making, towards improving service delivery and users satisfaction.

*Keywords: Health; insurance; perception; satisfaction.*

## 1. INTRODUCTION

Good health is essential to sustain economic and social development, as well as poverty reduction. Access to needed health services is crucial for maintaining and improving health, and people need to be protected from being pushed into poverty because of the cost of health care [1]. Nigeria has shown commitment to achieving universal health coverage (UHC), but report from [2] shows progress has been slow. A recent review of health-system financing for UHC in Nigeria shows high out-of-pocket (OOP) expenses for health care, a very low budget for health at all levels of government, and poor health insurance penetration [3]. Less than 5% of Nigerians have health insurance coverage, with most insured enrollees in the formal sector and very poor coverage in the informal sector [4]. The recently signed National Health Act is a viable framework, the implementation of which can fast-track progress towards UHC [5]. This act sets the background to earmark adequate public resources to health towards strengthening primary health care through the Basic Healthcare Provision Fund, 50% of which will be managed by the National Health Insurance Scheme to ensure access to a minimum package of health services for all Nigerians and 45% by the National Primary Healthcare Development Agency for primary healthcare facility upgrade and maintenance, provision of essential drugs, and deployment of human resources to primary health-care facilities. The Federal Ministry of Health will manage the remaining 5% for national health emergency and response to epidemics.

In Africa, Algeria in 1949 adopted a statutory health insurance programme, followed by Libya in 1957, Tunisia in 1960 and Egypt in 1967. In 2003 the Government of Ghana established a National Health Insurance Scheme (NHIS) to make health care more affordable for the citizens [6]. WHO has been involved in technical advisory work especially on assessing the feasibility of Social Health Insurance (SHI) in some African countries like Rwanda and Swaziland [7]. In Swaziland due to the poor quality of care in the government sector, SHI was adopted as an alternative option to the existing private medical aid scheme. The aim of this was to ensure universal access to health care by mobilising additional resources to financing quality improvements, as well as build up tertiary, specialised care within Swaziland [7]. The rising cost of health care services, as well as the inability of the government health facilities to cope with the people's demand, necessitated the establishment of National Health Insurance Scheme [8]. The history of the NHIS dates back to 1962 when the need for health insurance in the provision of health care to Nigerians was first recognised [9,10]. It was fully approved by the Federal Government in 1997, signed into law in 1999 and launched officially on the 6th June 2005. The Scheme is designed to provide comprehensive health care delivery at affordable costs, covering employees of the formal sector, self-employed rural communities as well as the poor and the vulnerable groups. The NHIS in Nigeria seeks to provide health insurance, so that insured persons and their dependents are able to have access to good quality and cost-effective healthcare services [8]. The formal

sector programme of the NHIS specified that contributions made by or for an insured person qualifies him or her, a spouse and four biological children under the age of 18 years to a defined health benefits package [8].

There is a general consensus that perception involves the process of selecting, organising and interpreting information about a person, product, service or a situation and coming to a subjective or an objective conclusion about the thing or situation [11]. Indicated that perception is the meaning an individual attaches to a given situation and this is based on accumulated past experiences of the individual involved. Perception originated from the Latin words “perceptio” or “percipio” which means receiving or acquiring of sensory information. Perception is an active process responsible for organisation of sensory information into simple, meaningful patterns [11].

Perceptions are made of events or entities and depend on how we interpret what we see, what we feel, what we smell and what sound we hear. One’s perception of a thing or an event is modulated by previous experiences. This is as a result of learning, attitudes and interests, as well as current needs and the prevailing circumstance. Perception is also seen and described as the consciousness of an object or an event [11] saw perception as the process involving selection, organisation and interpretation of information inputs to make a meaning out of the world.

## 2. LITERATURE REVIEW

Study by Alnaif [12], on physician’s perception of Health Insurance in Saudi Arabia showed that health care service is a major concern for the respondents. Secondly, the respondents believed that “everyone in the Kingdom should have access to health care services”. They also believed that SHI would improve access to health care, lead to more regulations and utilisation, create more competition for health care providers and more jobs in the health sector. Another study on perception and demand for mutual health insurance in the Kassena-Nanka District of Northern Ghana by Akazili et al. [13], revealed the following findings: (A) existence of risk-sharing groups such as farmers groups, women groups and church groups whose members contribute money for funerals and other general needs. (B) ninety-three percent of household heads had knowledge of the cash and carry

system. (C) forty-four percent of those interviewed were aware of governments plan to replace the cash and carry system with a social health insurance scheme. (D) About 93% of community members indicated interest in the scheme and were willing to contribute. On the contrary, a few people believed that contributing money prior to the occurrence of sickness could attract such illness and that forcing the sick to pay before receiving care, instead of receiving care before payment, could constitute a major setback to the implementation of the scheme.

Perception of National Health Insurance Scheme (NHIS) by health care Consumers in Oyo State [14], showed that: (A) there is a relationship between socio-economic indices and perception of the programme. (B) 87% of the respondents were aware of the programme. (C) About 72% of the respondents indicated that there was delay in attending to them for health care services and (D) 87% of respondents did not see any significant difference between the services provided under the cash and carry system and the NHIS. Awareness and Perception of National Health Insurance Scheme (NHIS) among Radiographers in South East Nigeria. Okaro et al. [15], showed: (A) a generally high level of awareness of the programme among the respondents. (B) Seminars in hospitals are very important tools in sensitising healthcare professionals. (C) Participation in the scheme is low among the study population. (D) There is paucity of knowledge of the operational principles of the scheme. (E) The study population was positively disposed towards the scheme.

A survey on perception of dentists in Lagos State by Adeniyi and Onajole [16], reveals that 61% had only a fair knowledge of the NHIS and 76.6% believed it would expand access to dental care by improving affordability and availability of services. Another survey by Olugbenga-Bello and Adebimpe [17], on the knowledge and attitude of civil servants in Osun State, Southwestern Nigeria, showed that none had a good knowledge of the components of NHIS, 26.7% knew about its objectives, and 30% knew about who ideally should benefit from the scheme. Study by Sanusi and Awe [18], on assessment of awareness level of NHIS among health care consumers in Oyo State, Nigeria, revealed that 72% of respondents claimed that they were not promptly attended to by their providers, hence wanted the program to discontinue. Another study which addressed the

issue of access constraints for government employees in Abakaliki, Ebonyi State, by Oyibo [19] found out that NHIS enrollees had little difficulty in accessing health care compared to those relying on OOP payments. A study to assess the impact of the NHIS in promoting access to healthcare by Ibiwoye and Adeleke [20], identified the ineffectiveness of the scheme. Another study by Osuchukwu et al. [21], which evaluated the impact of NHIS on healthcare consumers in Calabar metropolis, Southern Nigeria, documented that 54.0% respondents agreed that the quality of health care services rendered was better than before, while 38.5% respondents felt the quality of health services was the same as before and 7.5% felt that health services rendered was worse than before. A survey on users' satisfaction with services provided under NHIS in Southwestern Nigeria by Osungbade et al. [22], showed that 60% of respondents encountered problems with their healthcare providers. These included long queues, poor reception from unfriendly health workers, inefficient treatment, and unclean environment. Another study by Shafiu and Sambo [23], among staff of Ahmadu Bello University (ABU) Zaria, to assess clients' satisfaction with the NHIS in Nigeria reported low Satisfaction.

### 3. METHODOLOGY

#### 3.1 Study Area

Sokoto is situated in the Northwestern part of Nigeria. The State was created from the old North-western region in 1976; it assumed its present form after the creation of Kebbi State (in 1991) and Zamfara State (in 1996). It is bounded by Zamfara State to the South, Kebbi state to the west, Katsina State to the east and Niger Republic to the North. The State has 23 Local Governments with Sokoto Metropolis being the capital comprising of Sokoto North, Sokoto South and some part of Dange Shuni, Kware and Wamako Local Government Areas. The metropolis is the seat of government and popularly called the seat of caliphate. It lies between longitudes of 05. 11<sup>0</sup> to 13. 03<sup>0</sup> east, Latitude 13 00 North and covers area of 60, 33 square km. The average projected population of the state for 2015 was 4,886,888 (UNFPA, 2015) with the metropolis having 425,969 (2006 census). Sokoto covers a total land area of 26,595,000m<sup>2</sup>. The state has an average annual temperature of 28.3° C (82.9° F) and it is one of the hottest cities in the country.

Usmanu Danfodiyo University, Sokoto (formerly University of Sokoto) is one of the four universities established by the Federal Government of Nigeria in September 1975, at which time three University Colleges (now full-fledged universities) were established. The development of the university started on a temporary site (now called City Campus), situated along Sultan Abubakar road, Sokoto. Presently, there are thirteen faculties and a postgraduate school in the university. The postgraduate school was established in 1983 for the training of graduates in various disciplines at the Masters and Doctorate degree levels. The university has one clinic in the main campus and a teaching hospital in the Sokoto metropolis.

#### 3.2 Study Design

Descriptive cross-sectional design.

#### 3.3 Study Population

The population comprised of Academic Staff of Usmanu Danfodiyo University Sokoto, Nigeria. Inclusion criteria were the employees who were fully registered with NHIS, academic staff members on ground during the study period (October to December 2017) while those on study leave and Non Academic Staff members were excluded from the study. The university comprises of 13 faculties with 976 academic lecturers.

#### 3.4 Sampling Procedure

##### Sample size estimation and procedure:

The minimum sample size was determined using the formula:

$$n = Z^2pq / d^2 \text{ (Ibrahim, 2009) where:}$$

- n= Minimum sample size
- z= Standard normal deviate at 95% confidence interval= 1.96
- P= p = 65% (Proportion of enrollees who were satisfied with attitude of NHIS staff in a study on users' satisfaction
- q= q= 1-P (1-0.65) = 0.35
- d= Precision expected at 95% confidence limit (0.05) precision of tolerable alpha Error.

$$\text{From } n = Z^2pq / d^2$$

$$n = (1.96)^2 \times (0.65) \times (0.35) / (0.05)^2 \text{ Therefore } n = 349.5 \approx 350$$

Allowing for 10% non-respondent rate the optimum sample size will be  $n/RR$  [24] where  $n=350$ ,  $RR=90\%$  (0.9) this gives  $350/0.9= 388.8 \approx 389$ .

Therefore since the total population is less than 10,000 the study applies following formula:

$$N_p = n / 1 + (n/N)$$

Where

$N = 976$  (Number of Academic staff present during the study)

$n = 389$

$389 / 1 + (389/976) = 278$  is the total number of the study sample size.

Therefore out of the 976 Academic staff lectures only 278 were enrolled in to the study.

As at the time of this study, there were 976 academic staff in 13 faculties in Usmanu Danfodiyo University Sokoto. A list of members was obtained from the University Data manager 2017, and all the faculties were selected. Proportional allocation was used to select 278 respondents from the faculties and respondent were selected using systematic sampling technique in each faculty.

### 3.5 Data Collection Procedures

Self-administered questionnaire was used as the means of collecting data. The questionnaire was designed to obtain information on the following: demographic characteristics of respondents (age, sex, marital status, family size, and education), perception and satisfaction of clients' on NHIS services.

### 3.6 Data Analysis

Data collected were analysed using SPSS software version 20.0.

### 3.7 Ethical and Consent Consideration

Approval for the study was obtained from the department of Business Administration Usmanu Danfodiyo University Sokoto and informed consent obtained from participants.

## 4. RESULTS

### 4.1 Socio-demographic Characteristics of Respondents

Variables	n (%)
<b>Age (Years)</b>	
20-29	12 (4.3)
30-39	84 (12.9)
40-49	104 (37.4)
50-59	36 (30.2)
≥60	42 (15.2)
Mean Age= 28.6, ±7.03	
<b>Sex</b>	
Male	268 (96)
Female	10 (4)
<b>Marital status</b>	
Single	20 (7.1)
Married	256 (92.1)
Separated	2 (0.8)
<b>Family size</b>	
Less than 5	80 (28.8)
5-10	88 (31.7)
11-20	28 (10.1)
21 above	82 (29.4)
<b>Highest qualification</b>	
Degree	40 (14)
Masters	108 (39)
PhD	132 (47)

A total of 278 academic staff completed the self-administered questionnaire. There were 268 males representing 96% of the respondents. The respondents' age ranges from 40 to 49 years, with mean age of 28.6 years and median of 29 years. Majority 256 (92.1%) were married and 88 (31.7%) had family sizes of between 5 and 10. About half 136 (48.9%) of the respondents had been enrolled with the scheme, with the majority 81 (59.6%) accessing care at the university clinic and 36 (27%) at Usmanu Danfodiyo University Teaching Hospital (UDUTH), Sokoto.

Majority 200 (71.9%) of the respondents' preferred NHIS services to the cash and carry system of health care, 220(79.1%) agreed that it protects families from financial hardship and 168 (60.4%) felt the services provide easy access to healthcare. However almost half 136 (48.9%) disagreed that NHIS provides up to date medical services.

Out of the 136 respondents enrolled into the scheme; 92 (67.6%) indicated their dissatisfaction with the process of enrolment, while 93 (68.4%) were satisfied with the attitude

**Table 1. Respondents' perception of National Health Insurance Scheme (NHIS)**

Variables	Agree (%)	Disagree (%)	Undecided (%)
Do you Consider NHIS service provides up to date medical services	120 (43.2)	136 (48.9)	22 (7.9)
NHIS has provided easy access to healthcare	168 (60.4)	92 (33.1)	18 (6.5)
I prefer NHIS services to the cash-and-carry system of healthcare	200 (71.9)	60 (21.6)	18(6.5)
Protect families from financial hardship of large medical bills.	220 (79.1)	52 (18.7)	6 (2.2)

**Table 2. Respondent satisfaction with the NHIS services**

Variables	Satisfied (%)	Dissatisfied (%)	Undecided (%)
Process of enrolment/registration with NHIS	34 (25)	92 (67.6)	10 (7.4)
Waiting time at NHIS Clinic	52 (38.2)	80 (58.8)	4 (3)
Attitude of NHIS staff	93 (68.4)	26 (19.1)	17 (12.5)
Referral system	68 (50)	40 (29)	28 (21)
Drugs received	29 (21.3)	99 (72.8)	8 (5.9)
Investigation covered	68 (50)	60 (44.1)	8 (5.8)
Co-payment plan	40 (29.4)	43 (31.6)	53 (39)
Access to specialty care whenever needed	34 (25)	66 (48.5)	36(26.5)
Overall scheme service	26 (19.1)	98 (72.1)	12 (8.8)

of NHIS staff. With regards to the waiting time at NHIS clinic, 80 (58.8%) were dissatisfied, and majority 99 (72.8%) were not satisfied with the drugs received at the NHIS pharmacy. The overall satisfaction with the services accessed showed that 98 (72%) of the respondents were dissatisfied with the scheme.

## 5. DISCUSSION

Modal age of the respondents was 40-49 years, while the mean age was 28.6.6±7.03. This falls within the work-force age. Findings revealed that NHIS program appears to be well patronised as majority of respondents were married whose family members are equally expected to register as well with the scheme. High awareness of NHIS by the respondents in this study might be due to the fact that almost half of respondents had tertiary education coupled with their working environment which might make them to be conversant with any National health policy such as NHIS in the country. This will enhance their awareness of the benefits of scheme such as access to quality healthcare. Findings in this study revealed that the NHIS program appeared to be well patronised as majority of respondents were registered with their family members.

Majority about 200 (71.9%) of the respondents' preferred NHIS services to the cash and carry system of health care, this is contrary to finding of Onyedibe et al. [25] who shows that 59% of

respondents preferred the cash and carry system 220(79.1%) respondents agreed that it protects families from financial hardship and 168 (60.4%) felt the services provide easy access to healthcare. However, almost half 136 (48.9%) opposed that NHIS provides up to date medical services, this findings is similar to findings of Iyabode and Esther [26] which shows 147 (42%) of the respondents rated NHIS services as good.

Out of the 136 respondents enrolled into the scheme, overall satisfaction showed that 72% of the respondents were dissatisfied with the scheme. This is similar to the findings of Salawudden [27], which shows 66% dissatisfaction, but differ from that of Iyabode and Esther [28] which revealed that 48.6% respondents were satisfied with the services of the scheme and also similar to Osungbade et al. [22], which shows 161 (49.5%) were satisfied with the range of services covered under NHIS, regarding the waiting time at NHIS clinic, 80 (58.8%) were dissatisfied, this differ from finding of Iloh et al. [29] that found NHIS patients' satisfaction with waiting time to be (48.3%), in terms of drug receiving at NHIS clinic, majority 99 (72.8%) in this study were not satisfied with the drugs received at the NHIS pharmacy this value is higher than the one obtained by Osungbade et al. [22] who revealed that One hundred and eighty-five (55.6%) were satisfied with availability of prescribed drugs and healthcare provider services respectively.

## 6. RECOMMENDATIONS

Base on the preceding submission this paper recommends that, removal of all bottlenecks encountered in the registration process (i.e. delay in getting identification cards for accessing NHIS service) in order to fast track registration of new and existing employees into the scheme. Compulsory enrollment into the scheme should be enforced by the employers at the onset of recruitment process for all working Nigerians, starting with those in the civil service. This will improve our dismal health indices as most Nigerians will then have access to better healthcare services without the encumbrance of large out of pocket expenses.

Health Maintenance Organisations and healthcare providers must realise that enrollees have the right to choose their service providers and change to another when not satisfied with services rendered. Therefore, it is recommended that every provider should strive to provide the best of services and the NHIS should step up their monitoring team in order to curb the menace of dissatisfaction which is fast becoming common place in the scheme. Several Nigerians are not fully enlightened in the components and structure of the NHIS. The researcher therefore recommends a mass and far reaching enlightenment campaign in form of seminars, workshops and publications to educate the populace on how the scheme works.

## 7. CONCLUSIONS

The respondents agreed that NHIS provides easy access to healthcare, protected families from financial hardship of large medical bills and preferred its services to the cash and carry system of healthcare. However, it showed dissatisfaction in the process of enrollment with the NHIS, implying that the administrative part of the scheme was very ineffective. Since registration is an administrative duty and the first process of enrolment into NHIS, giving the first impression about the Scheme. The NHIS should give it the attention needed towards ensuring enrollees' satisfaction, toward making the registration easier and available at any time they wish to access it.

## ETHICAL APPROVAL AND CONSENT

Approval for the study was obtained from the department of Business Administration Usmanu

Danfodiyo University Sokoto and informed consent obtained from participants.

## COMPETING INTERESTS

Authors have declared that no competing interests exist.

## REFERENCES

1. WHO. Universal Health Coverage; 2018. Available:<http://www.who.int/healthsystems/universal-health-coverage/en/>
2. WHO. Presidential summit on universal health coverage ends in Nigeria. World Health Organization; 2014. Available:<http://www.afro.who.int/en/nigeria/press-materials/item/6376-presidential-summit-on-universal-health-coverage-ends-in-nigeria.html>
3. Awosusi A. Health for All co-hosts national stakeholders meeting on UHC in Nigeria. Available:<http://www.msh.org/blog/2014/04/15/health-for-all-co-hosts-national-stakeholders-meeting-on-uhc-in-nigeria> (Accessed May 20, 2015).
4. WHO 2002. Global Health Observatory Data Repository. Nigeria: statistics summary (2002–present). Available:<http://apps.who.int/gho/data/node.country.country-NGA>
5. Uzochukwu B, Ughasoro MD, Etiaba E, Okwuosa C, Enzuladu E, Onwujekwe OE. Health care financing in Nigeria: Implications for achieving universal health coverage. Niger J Clin Pract. 2015;18:437-444.
6. Mensah J, Oppong JR, Bobi-Barimah. An evaluation of the Ghana national health Insurance in the context of the health MDGs GDN Library Working Paper Series; 2010.
7. Carrin G, Doetincher D, Kingia J, Mathauer I, Musago L. Social health insurance. Low feasible is its expansion in the Africa Region, International Institute of Social Studies. 2011;1:15. Available:<http://www.iss.nl/layoutsetprintDevsuesArticlesocial-health-Insurancehow-feasible-is-it> (Retrival 14-10-2011)
8. NHIS. National health insurance scheme operational guidelines. National Health Insurance Scheme Abuja, Nigeria; 2005.

9. Akande TM, Bello O. National health insurance scheme in Nig. Medilor J. 2002; 7(1).
10. Katibi IA, Akande AA, Akande TM. Awareness and attitude of medical practitioners in Ilorin towards National Health Insurance Scheme. Nig. Medical Practitioner. 2003;43:2.
11. Berelson B, Steiner GA. Human behaviour: An Inventory of Scientific findings, New York: Harcourt; 1964.
12. Alnaif, Muhammad S. Physicians' perception of health insurance in Saudi Arabia. Saudi Medical Journal. 2005;27: 693–699.
13. Akazili J, Anto F, Anyorigiya T, Adjuik M, Kanyomse E, Oduro A, Hadgson A. The perception and demand for mutual health insurance in the Kassena-Nanka District of Northern Ghana. The Ghanian – Dutch Collaboration for Health Research Development; 2005.
14. Awe AT, Sanusi RA. Perception of National Health Insurance Scheme (NHIS) by Healthcare consumers in Oyo State, Nigeria. Pakistan Journal of Social Sciences. 2009;6:48–53.
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.  
Available:[www.eurojournals.com/ajsr.htm](http://www.eurojournals.com/ajsr.htm)
16. Adeniyi AA, Onajole AT. National health insurance scheme: A survey of knowledge and opinions of Nigerian dentists in Lagos. Nigeria. African Journal of Medical Science. 2010;39(1):29–35.
17. Olugbenga-Bello AI, Adebimpe WO. Knowledge and attitude of civil servants in Osun State, Southwestern Nigeria towards national health insurance scheme. Nigeria: Nigerian Journal of Clinical Practice. 2010; 13(4):421-6.
18. Sanusi RA, Awe AT. Perception of national health insurance scheme by health care consumers in Ibadan, Oyo State, Nigeria. Nigeria. Pakistan Journal of Social Sciences. 2015;6(1):48-53.
19. Oyibo PG. Out-of-pocket payment for health services: Constraints and implications for government employees in Abakaliki, Ebonyi State, Southeastern, Nigeria. Nigeria. African Health Science. 2011;11(3):481–5.
20. Ibiwoye A, Adeleke IA. Does National Health Insurance promote access to quality health care? Evidence from Nigeria. Nigeria. Geneva Papers on Risk and Insurance: Issues and Practice. 2008; 33(1):219-233.  
DOI: 10.1057/gpp.2008.6
21. Osuchukwu NC, Osonwa KO, Eko JE, Uwanede CC, Abeshi SE, Offiong DA. Evaluating the impact of national health insurance scheme on health care consumers in Calabar metropolis, Southern Nigeria. International Journal of Learning & Development. 2013;3(4):30. ISSN: 2164-4063.  
Available:[www.macrothink.org/ijld](http://www.macrothink.org/ijld)
22. Osungbade KO, Obembe TA, Oludoyi A. Users' satisfaction with services provided under national health insurance scheme in Southwestern Nigeria. International Journal of Tropical Disease & Health. 2014;4(5):595-607.  
Available:[www.sciencedomain.org](http://www.sciencedomain.org)
23. Shafiu M, Sambo MN. Clients' satisfaction with health insurance scheme in Nigeria: The formal sector experience in the Northern Nigeria. Presentation at University of Heidelberg. Institute of Public Health, Germany; 2009.
24. Ibrahim MT. Research Methodology and Dissertation Writing for Health and Allied Health Professionals, 1<sup>st</sup> Edition, Abuja, Cress global link limited; 2009.
25. Onyedibe KI, Goyit MG, Nnadi NE. An evaluation of the national health insurance scheme (NHIS) in Jos, a north-central Nigerian city, vol. (1) P005-012 Operational guideline- National health insurance scheme, June 2005, NHIS; 2012.
26. Iyabode AG, Esther OF. International journal of tropical diseases and health Perception and Satisfaction of Employees with National Health Insurance Scheme Services: A Descriptive Study at University College Hospital, Ibadan, Nigeria. 2017; 22(1):1-12.
27. Salawudden SA. Assessment of clients' satisfaction and quality of outpatient care under the national health insurance scheme at Barau Dikko specialist hospital Kaduna, Kaduna state, MPH Project Asses; 2008.  
Available:[www.kubanni.abu.edu.ng:8080](http://www.kubanni.abu.edu.ng:8080)
28. Iyabode AG, Esther OF. International journal of tropical diseases and health Perception and Satisfaction of Employees



- with National Health Insurance Scheme Services: A Descriptive Study at University College Hospital, Ibadan, Nigeria. 2017; 22(1):1-12.
29. Iloh GU, Ofoedu JN, Njoku PU, Odu FU, Ifedigbo CV, Iwuamanam KD. Evaluation of patients' satisfaction with quality of care provided at the National Health Insurance Scheme clinic of a tertiary hospital in South- Eastern Nigeria. Niger J Clin Pract. 2012;15(4):469–74.  
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