

## CLIENTS' PERCEPTION AND SATISFACTION WITH NATIONAL HEALTH

## INSURANCE SCHEME SERVICES: A STUDY OF ACADEMIC STAFF OF USMANU

## DANFODIYO UNIVERSITY, SOKOTO

**Abstract**

**Aim:** To assess clients' perception and satisfaction on with the National Health Insurance Scheme.

**Study Design:** This descriptive cross-sectional study conducted between Octobers to and December, 2017, focused on academic staff who were clients' of (NHIS) at the Usmanu Danfodiyo University, Sokoto, Sokoto state, Northwest, ern part of Nigeria.

**Methodology** 278 eligible academic staff completed a self-administered questionnaire, using systematic samplings

**Result:** Findings revealed that majority (99.3%) of the respondents were aware of the NHIS and less than half (48.9%) of the respondent enrolled into the scheme, with majority (59.6%) accessing their services at University clinic. However about half (53%) of the 278 respondents had poor knowledge of how the scheme works, but with 60.4% of them agreeingd that NHIS has provided easy access to healthcare and while 79.1% agreed that it protects families from financial hardship of large medical bills. Out of one hundred and thirty six 136 academic lecturers (48.9%) who enrolled into the scheme, 67.6% were dissatisfied with the process of enrolment while 68.4% were satisfied with the attitude of NHIS staff. With regards to the waiting time at NHIS clinic, 58.8% were dissatisfied, and majority 72.8% were not satisfied with the drugs received at the NHIS pharmacy. Finally, among the enrollees' majority 72.1% of the respondents rated the overall satisfaction as poor and would not recommend the facility for family members/friends.

**Conclusions** Based on the findings, it was concluded that the clients' overall satisfaction with service provision was poor. It is recommended that periodic survey of clients' satisfaction and factors influencing it should be carried out by health Institutions and findings used as guide in policy and decision making towards improving service deliver and client satisfaction.

**Keywords:** Employees; Health; insurance; clients; perception; satisfaction; scheme.

**Comment [OD1]:** The authors need to give correct and precise details of the sampling method.

**Comment [OD2]:** Why single out academic lecturers out of the respondents? This statement needs clarification and review.

**Comment [OD3]:** Consider summarizing your result.

**INTRODUCTION**

Promoting and protecting health is essential to human welfare and sustained economic and social development. This was recognized more than 30 years ago by the Alma-Ata Declaration signatories, who noted that Health for All would contribute both to a better quality of life and

35 | also to global peace and security. The World Health Assembly (WHA) resolution stated that,  
36 | from 2005, everyone should be able to access health services **and not be without being** subjected  
37 | to financial hardship in doing so. Till date, the world is still a long way from universal health  
38 | coverage. In some countries, up to 11% of the population suffers this type of severe financial  
39 | hardship each year, and up to 5% is forced into poverty. Globally, about 150 million people  
40 | suffer financial catastrophe annually while 100 million are pushed below the poverty line (WHO,  
41 | 2010).

Comment [OD4]: Put Reference

Comment [OD5]: Put Reference

Comment [OD6]: Specify

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42 | Health financing is an important part of broader efforts to ensure social protection in  
43 | health. As such, World Health Organization (WHO) is a joint lead agency with the International  
44 | Labour Organization (ILO) in the United Nations initiative to help countries develop a  
45 | comprehensive social protection floor terms as 'Social health insurance' (SHI) is one of the  
46 | possible organizational mechanisms for raising and pooling funds to finance health services,  
47 | along with tax-financing, private health insurance, community insurance, and others. Typically,  
48 | in the more **mature developed** European SHI system, **workers ing people** and their employers,  
49 | as well as the self-employed, pay contributions that cover a package of services available to the  
50 | insureds and their dependents. In most cases, they are obliged to make these contributions by  
51 | law. Many governments also pay subsidies into these systems in order to ensure or improve their  
52 | financial sustainability. **More recently**, WHO has also shown commitmentted to renewing  
53 | primary health care, and health insurance is attracting more **and more** attention in low- and  
54 | middle-income countries, as a means for improving health care utilization and protecting  
55 | households against impoverishment from out-of-pocket expenditures. The health financing  
56 | mechanism was developed to counteract the detrimental effects of user fees introduced in the  
57 | 1980s, which now appear to inhibit healthcare utilization, particularly for marginalized

Comment [OD8]: Put Reference

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58 populations, and to certain extent sometimes lead to catastrophic health expenditures. The World  
 59 Health Organization (WHO) considers health insurance a promising means for achieving  
 60 universal health-care coverage. Various types of health insurance scheme are available. National  
 61 or Social Health Insurance (SHI) is based on individuals' mandatory enrolment. Several low-  
 62 and middle-income countries, including the Philippines, Thailand and Vietnam, are establishing  
 63 SHI. Voluntary insurance mechanisms include Private Health Insurance (PHI), which is  
 64 implemented on a large scale in countries like Brazil, Chile, Namibia and South Africa.  
 65 Community-Based Health Insurance (CBHI), is now available in countries like the Democratic  
 66 Republic of the Congo, Ghana, Rwanda and Senegal. The various types of health insurance have  
 67 different impacts on the populations they serve. For example, i.e. PHI is said to mainly serve  
 68 the affluent segments of a population, but CBHI is often put forward as a health financing  
 69 mechanism that can especially benefit the poor. Hence countries wishing to introduce health  
 70 insurance schemes into their health systems should be aware of how their impact varies. The  
 71 impact of health insurance in low-and-middle-income countries has unfortunately been  
 72 documented only partially. Previous reviews have evaluated the performance of CBHI in terms  
 73 of enrolment, financial management and sustainability. A recent review by WHO provides an  
 74 overview of the scope and origin of CHI in low- and middle-income countries, with a particular  
 75 focus on China, Ghana, India, Mali, Rwanda and Senegal, and also assesses CHI's performance  
 76 in terms of population coverage, range of services included and reimbursement rate.  
 77 Every country have different ways of its operation. examples, i.e. American Workers now pay  
 78 an average of \$1,318 out of pocket before health insurance coverage begins to cover part of  
 79 their bills, up from \$584 a decade ago. According to a new report from the Kaiser Family  
 80 Foundation. That's after paying an average of \$89 each month for health insurance (WHO,

**Comment [OD10]:** Consider revising. Statement not too clear

**Comment [OD11]:** Put Reference

**Comment [OD12]:** Put Reference

**Comment [OD13]:** Put Reference

**Comment [OD14]:** Put Reference

**Comment [OD15]:** Kindly do more literature review on this, as there are many published researches on health insurance and not jus CBHI.

81 2010). Healthcare in England is mainly provided by England's Public Health Service, the  
82 National Health Service **that** provides healthcare to all permanent residents of the United  
83 Kingdom **which that** is free at the point of use and paid for from general taxation. Health care is  
84 provided by a single payer which is the British government and is funded by the taxpayer. All  
85 appointments and treatments are free to the patient (though paid for through taxes), as are almost  
86 all prescription drugs. The maximum cost of receiving any drug prescribed by the NHS is \$12.

**Comment [OD16]:** Not too clear statement.  
Reword and reference appropriately.

87 Right now, health insurance in Africa constitutes a tale of two continents. The very  
88 affluent can take advantage of private insurance with top-tier doctors and hospitals. The World  
89 Health Organization (WHO) considers health insurance “a promising means for achieving  
90 universal healthcare coverage. “Africa has the highest burden of disease in the world but as  
91 recently as 2007, more than half of African countries spent less than \$50 per person on health. Of  
92 the total health expenditure, 30 percent came from governments, 20 percent from donors, and  
93 50 percent from private sources including patients themselves paying out-of-pocket. The burden  
94 of paying out-of-pocket is an important barrier for seeking health care in Sub-Saharan Africa and  
95 contributes to inequity in access to health care.

**Comment [OD17]:** Put Reference

**Comment [OD18]:** Put Reference

**Comment [OD19]:** Put Reference

96 Several African nations are slowly “moving towards the direction” of universal health coverage  
97 and national health insurance plans. But many African governments lack the political will to  
98 introduce plans, or the ability to design plans with innovative funding mechanisms to pay for  
99 them, only Rwanda and Ghana appear to have made significant progress toward providing  
100 universal health coverage through a National Health Insurance Scheme for the majority of their  
101 citizens. In countries **which have some manner with some forms** of non-national health  
102 insurance schemes whether community, private- or employer-based, their reach is typically very  
103 limited. “Many African countries, including Nigeria, Tanzania, Kenya, Uganda, and Cameroon

**Comment [OD20]:** Put Reference

104 have community-based health insurance schemes that offer protection for the poor but are  
105 | unsustainable because poor people can't contribute enough premiums to maintain the schemes.,  
106 Ghana is the only country in Sub-Saharan Africa that successfully implemented a social health  
107 insurance at national level. Other countries, including Uganda and South Africa, aim to  
108 implement national health insurance, with varying success (WHO, 2010)

109 Nigeria's ten year plan for development and welfare (1946-56) incorporated the first  
110 attempt at planning for Health services in Nigeria (Aderounmu 1992). Since 1<sup>st</sup> October 1960,  
111 successive Nigerian governments (Civilian and Military) have come up with the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup>  
112 | National Development Plans, all of which have substantial portions dedicated to addressing  
113 | issues related to national health care system. Today, the Nigerian health system is stratified into  
114 primary, secondary and tertiary health care levels with the primary level designed to take health  
115 care delivery literally to the doorstep of the populace and act as the gatekeeper to the health care  
116 system. Before the advent of the National Health Insurance Scheme (NHIS), health care services  
117 to government officials, their dependents and students were supposed to be free while the general  
118 populace was expected to pay out of pocket (OOP) for health services received at all levels of the  
119 health care system. Health insurance as a complementary or alternative source of health care  
120 financing has become important in the developing world (McIntyre, 2007).

121 | The rising cost of health care services, as well as the inability of the government health facilities  
122 | to cope with the people's demand necessitated the establishment of National Health Insurance  
123 Scheme (NHIS, 2005). The history of the NHIS dates back to 1962 when the need for health  
124 insurance in the provision of health care to Nigerians was first recognized (Akande and Bello,  
125 2002; Katibi and Akande, 2003). 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, as well as rural communities, 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 (NHIS, 2005). But, 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 (NHIS, 2005).

There is a general consensus that perception involves the process of selecting, organizing 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. Ifezue, (1997) 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 organization of sensory information into simple, meaningful patterns, (Ornsterin & Carstensen, 1991).

Perceptions made of events or entities depend on how we interpret what we see, what we feel, what we smell and what sound we hear, with our ears. One’s perception of a thing or an event is modulated by previous experiences. This is as a result of learning, his 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. Berelson and Steiner (1964) saw perception as the process involving selection, organization and interpretation of information

148 inputs to make a meaning out of the world. Our perception of an object or an event determines  
149 what our reactions will be.

## 150 **Theories of Perception**

151 Perception as a theme has impressed so much on many scholars that a significant number of  
152 theories have emanated over time. Some of these prominent theories are the ecological, and  
153 constructivist.

154 I. **Ecological theory of perception:** Ecological theory of perception emphasizes that  
155 perception is direct and that it functions like a radio interacting with definite stimuli  
156 emanating from the object or event of interest (Gibson 1979, Shepard, 1984). The belief of  
157 this theory is that the information for color-vision is present in the receptors. The theory  
158 emphasizes that all information about attributes of objects or events are present or available  
159 to the perceiver.

160 II. **Constructivist theory of perception:** The constructivist theory differs in that the  
161 proponents believe that perception is not receptive and that rather it is a construction of  
162 the mind which involves the perceiver's ability to make models of objects and events in  
163 the world. Here the creation of an image of what could have accounted for this sensation  
164 in the relevant organ must have been information inputs. But for completeness, these  
165 decomposed elements are once again assembled or composed into perceptions. They also  
166 attempt to develop a computational approach to visual perception.

## 167 **Literature Review**

168 Study by Alnaif, (2006) on physician's perception of Health Insurance in Saudi Arabia  
169 showed that health care service is a major concern for the respondents. Secondly, the respondents  
170 believed that "everyone in the Kingdom should have access to health care services". They also  
171 | believedd that SHI would improve access to health care, **would** lead to more regulations and

172 utilization, **and** create more competition for health care providers and **create** more jobs in the  
173 health sector. Another study on Perception and Demand for Mutual Health Insurance in the  
174 Kassena-Nanka District of Northern Ghana by Akazili et al (2005), **study** revealed the following  
175 findings: (1) existence of risk-sharing groups such as farmers groups, women groups and church  
176 groups whose members contribute money for funerals and other general needs; (2) 93% of household  
177 heads had knowledge of the cash and carry system (3) forty-four percent of those interviewed were  
178 aware of governments plan to replace the cash and carry system with a social health insurance  
179 scheme (4) About 93% of community members indicated interest in the scheme and were willing to  
180 contribute. On the contrary, a few people believed that contributing money **ahead of** prior to the  
181 occurrence of sickness **that will come** could attract such illness and that forcing the sick to pay  
182 before receiving care, instead of receiving care before payment, could constitute a major setback to  
183 the implementation of the scheme.

184 **Patients' Perceptions of service quality in group versus solo practice clinics (Lin et**  
185 **al, 2004) the study objectives were to compare patients perceptions of service quality at solo**  
186 **and group practices, and to examine the association of perceptions with “potential patient**  
187 **loyalty” (PPL), clinics in Taiwan, the results showed that group practice patients perceived**  
188 **significantly higher service quality on all dimensions as against the outpatients registered**  
189 **with solo practitioners. It was also discovered that all service quality dimensions except**  
190 **assurance were significantly positively associated with PPL.**

191  
192 Perception of National Health Insurance Scheme (NHIS) by health care Consumers in  
193 Oyo State, (Awe and Sanusi, 2009), showed that (1) There is a relationship between socio-  
194 economic indices and perception of the programme, (2) 87% of the respondents were aware of  
195 the programme, (3) About 72% of the respondents indicated that there was delay in attending to

196 them for health care services and (4) 87% of respondents did not see any significant difference  
197 between the services provided under the cash and carry system and the NHIS.

198 Awareness and Perception of National Health Insurance Scheme (NHIS) among  
199 Radiographers in South East Nigeria, (Okaro, Ohagwu and Njoku, 2010). Shows: (1) there is a  
200 generally high level of awareness of the programme among the respondents; (2) seminars in  
201 hospitals are very important tools in sensitizing healthcare professionals, (3) participation in the  
202 scheme is low among the study population (4) there is paucity of knowledge of the operational  
203 principles of the scheme, (5) the study population was positively disposed towards the scheme.

204  
205 A survey on perception of dentists in Lagos State by Adeniyi, (2010) reveals that 61%  
206 had only a fair knowledge of the NHIS but 76.6% believed it would expand access to dental care  
207 by improving affordability and availability of services., **a** Another survey by Olugbenga (2010)  
208 on the knowledge and attitude of civil servants in Osun State, Southwestern Nigeria, **showed that**  
209 the NHIS documented that none had a good knowledge of the components of NHIS, 26.7% knew  
210 about its objectives, and 30% knew about who ideally should benefit from the scheme. Study by  
211 Sanusi, (2015), on assessment of awareness level of NHIS among health care consumers in Oyo  
212 State, Nigeria revealed that 72% of respondents claimed that they were not promptly attended to  
213 by their providers and hence wanted the program to discontinue. Another study which addressed  
214 the issue of access constraints for government employees in Abakaliki, Ebonyi State, by Oyibo, (2011) found out that NHIS enrollees had little difficulty in accessing health care compared with  
215 those relying on OOP payments. A study to assess the impact of the NHIS in promoting access to  
216 healthcare by Ibiwoye, (2008) identifies the ineffectiveness of the scheme. Another study by  
217 Osuchukwu et al, 2013 **that which** evaluated the impact of NHIS on healthcare consumers  
218 **among 200 participants** in Calabar metropolis, Southern Nigeria, documented that **108 (54.0%)**  
219 respondents agreed that the quality of health care services rendered was better than before, while,  
220 **77 (38.5%)** respondents felt the quality of health services was the same as before. Only **15**  
221 **(7.5%) respondents** said that health services rendered is worse than before. A survey on users'  
222 satisfaction with services provided under NHIS in Southwestern Nigeria by Osungbade et al  
223 (2014) **shows** that 60% of respondents encountered problems with their healthcare providers.  
224

225 | These included long-queues, poor reception from unfriendly health workers, inefficient  
226 treatment, and unclean environment. In another study by Shafi'u, 2010, among staff of Ahmadu  
227 Bello University (ABU) Zaria to assess client's satisfaction with the NHIS in Nigeria reports low  
228 | Satisfaction which is attributed with longer duration of enrollment.

Comment [OD21]: Consider merging literature review with introduction. Review and shorten it.

## 230 | **METHODOLOGYS**

### 232 | **Study Area**

233 Sokoto is situated in the Northwestern part of Nigeria. The State was created from Old North-  
234 western in 1976; it assumed its present form after the creation of Kebbi State (in 1991) and  
235 Zamfara State (in 1996) It is bounded by Zamfara State to the South, Kebbi state to the west,  
236 Katsina State to the east and Niger Republic to the North. The State has 23 Local Governments  
237 with Sokoto Metropolis being the capital, and the capital comprises of the Sokoto North, Sokoto  
238 South and some part of Dange Shuni, Kware and Wamako Local Government Areas, The  
239 metropolis is the seat of government and popularly called the seat of caliphate. It lies between  
240 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.  
241 The average projected population of the state for 2015 is 4,886.888 (UNFPA, 2015) with the  
242 metropolitan having 425,969 (2006 census) Sokoto covers a total land area of 26,595,000m<sup>2</sup>. The  
243 state has an average annual temperature of 28.3° C (82.9° F), it is one of the hottest cities in the  
244 country. The annual rainfall ranges between 500mm – 1,300mm and occurs between May and  
245 September with a peak in August. The dry season usually spans from November to March during  
246 which there is harmattan period that is characterized by the cold dusty wind between the months  
247 of November to February. The hot period starts from March and ends around May during which  
248 the recorded environmental temperatures are in the range of 38<sup>0</sup>C – 42<sup>0</sup>C with an average  
249 humidity of less than 20%.The people are mainly Hausa/Fulani; others are Zabarmawa, and other  
250 various tribes from different parts of the country while Islam is the predominant religion. The

251 vegetation is that of Savannah zone with grassland suitable for the cultivation of grains and  
252 animal husbandry. The people are mainly farmers. However, some engage in art work like shoe  
253 making, tanning, dying and other various kinds of trading

254 Usmanu Danfodiyo University, Sokoto (formerly University of Sokoto) is one of the four  
255 Universities established by the Federal Government of Nigeria in September 1975, at which time  
256 three University Colleges (now full-fledged Universities) were established. The development of  
257 the university started on a temporary site (now called City Campus), situated along Sultan  
258 Abubakar Road, Sokoto. Classes started in October 20th, 1977, with an initial enrolment of  
259 ninety-three undergraduate students for the degrees of Bachelor of Arts, Bachelor of  
260 Arts/Science in Education and Bachelor of Science; and an academic staff strength of thirty-  
261 three. In January, 1978, one hundred and two students enrolled for a two-year pre-Degree  
262 Programme in the Humanities and Basics Sciences. With this modest start, the Usmanu  
263 Danfodiyo University, Sokoto formally graduated a total of seventy-two students during its first  
264 convocation held in November 22nd, 1980. Presently, there are thirteen faculties and a  
265 postgraduate school in the University, as follows

- |                                   |                      |                        |
|-----------------------------------|----------------------|------------------------|
| 1.Agriculture                     | 6.Engineering        | 11.Science             |
| 2.Art and Islamic studies         | 7.Law                | 12.Social sciences     |
| 3.Basic medical sciences          | 8.Management science | 13.Veterinary medicine |
| 4.Clinical science                | 9.Medical laboratory |                        |
| 5.Education and Extension service | 10.Pharmacy          |                        |

266 The above faculties have various departments and units under them. The following table gives  
 267 the distribution of the various departments and units in the university as at the time of this study  
 268 that is October to December 2017.

269

270

271 Distribution by faculties, departments and number of lecturers

<b>FACULTY</b>	<b>DEPARTMENTS AND UNITS</b>	<b>LECTURER</b>
<b>Agriculture</b>	Animal sciences. Crop science. Fishery. Forestry	51
<b>Art and Islamic Studies</b>	Arabic. English. French. Islamic studies. Nigerian languages. Modern European languages and linguistic.	130
<b>Basic Medical Sciences</b>	Anatomy. Biochemistry. Chemical pathology. Microbiology. Hematology. Physiology and Pharmacology.	78
<b>Clinical Sciences</b>	Community Health. Medicine. Nursing sciences. Obstetrics and gynecology. Paediatric. Psychiatric. Radiology. Radiography. Surgery	125
<b>Education and Extension Service</b>	Adult Education and Extension services. Curriculum studies and Educational technology. Educational foundation. Science and Vocational Education.	71
<b>Engineering</b>	Civil engineering. Mechanical engineering and Electrical	24
<b>Law</b>	Public law and Jurisprudence. Islamic law. Private and business.	26
<b>Management Sciences</b>	Accounting. Business Administration and Public Admin	47
<b>Medical Laboratory Sciences</b>	Chemical pathology. Hematology. Histopathology. Immunology. And Microbiology	56
<b>Pharmacy</b>	Pharmacogenic and ethical medicine. Pharmacy and Toxicology. Pharmaceutics and Pharmacy microbiology. Pharmaceutics and medicine chemistry. Clinical pharmacy and Pharmacy practice	69
<b>Science</b>	Applied chemistry. Biochemistry. Biology. Pure chemistry. Microbiology. Geology. Physics. Mathematics. Computer science. Statistics.	175
<b>Social Sciences</b>	Economics. Geography. Political sciences and Sociology	74
<b>Veterinary Medicine</b>	Anatomy. Biochemistry. Medicine. Microbiology. Pathology. Parasitology. Pharmacology. Physiology. Public health.	50

	Theriogenology. Surgery and Radiology	
<b>TOTAL</b>		<b>976</b>

272 The University Statute established the center for Islamic Studies in 1982. Its aim, among others,  
 273 is to promote the study of and research in Islam, Its instructions and related disciplines and its  
 274 culture with special reference to the northern states of Nigeria. The center runs a diploma  
 275 programme in Islamic Studies, which started in 1983, to assist in the manpower development of  
 276 the locality and the country at large. The center also runs Certificate Courses in Arabic and  
 277 Islamic Studies.

278 In November 1982, the Sokoto Energy Research Center was established at the instance of the  
 279 Federal Government. The Center was created not only to execute research in solar energy, but  
 280 also to train and develop manpower in that area.

281 The postgraduate school of the University was established in 1983 for the training of graduates  
 282 in various disciplines at the Masters and Doctorate degree levels. At the convocation ceremony  
 283 held in December, 1986, the school produced its first PhD graduate in Chemistry.

284 The University moved most of its faculties and Service Departments to the main campus in 1982.  
 285 Phase 1 of Students' hostels had already been completed and occupied.

286 The City Campus now houses the Faculty of Veterinary Medicine, the College of Health  
 287 Sciences, and Center for Islamic studies, Cibiyar Nazarin Hausa, the Department of Extension  
 288 Services. Recently there were new building for faculties of law, social sciences and management  
 289 science along Kware road in the university premises, a few services units and three Halls of  
 290 Residence for students' accommodation. The university Catering Guest House, now named the  
 291 University Guest Inn Limited, which runs on commercial basis, is located at Mabera layout.

292 **Study Design**

293  
294  
295 A descriptive cross sectional study design was used for this study. This design has been used by  
296 several authors that carried out studies related to this study (Osungbade et al, 2014; Dalinjong et al  
297 2012; Iliyasu, et al, 2010 & Onyedibe, et al 2012). Therefore, it is deemed appropriate for this study  
298 because it collected the data in a natural setting of the respondent, it entails systematic collection of  
299 relevant data and the statistical analysis of the data so as to present a clear description of respondents'  
300 perception and satisfaction of NHIS service delivery in Usmanu Danfodiyo University Sokoto

301 **Study population**

302 The population comprised of Academic Staff Union members of Usmanu Danfodiyo University  
303 Sokoto, Nigeria. All academic staff members of Usmanu Danfodiyo University Sokoto that are  
304 on ground during the study period October to December 2017. Lecturer that are on Study Leave  
305 are not involve in this study, meanwhile Non Academic Staff member were also excluded in this  
306 study

307  
308 **Sampling Procedure**

309  
310  
311 Respondents were selected using the simple random sampling technique. Academic lecturers in  
312 the University are divided into faculties. A faculty is made up of a department and units where  
313 lecturers are operating from in a given department. As at the time of the study, there were 976  
314 academic staff in 13 faculties in Usmanu Danfodiyo University Sokoto. A list of these faculties  
315 was obtained from the University Data manager 2017, and all the faculties were selected.  
316 Proportional allocation was used to select 278 respondents from the faculties, then simple  
317 random sampling were done to select the respondent in each department.

**Comment [OD22]:** How was the sample size arrived at? Why was simple random using used? More Details needed.

319

## 320 **Data Collection Procedures**

321 For this study, primary data came from academic staff lecturer of Usmanu Danfodiyo University  
322 Sokoto (UDUS) who are present at the time of the study. Questionnaire was used as the means of  
323 collecting data. Thus, the study was structured, questionnaire administered to respondents as the  
324 principal method of data collection. The questionnaire probed into the following: demographic  
325 characteristics of respondents (age, sex, marital status, family size, and education), perception  
326 and satisfaction of clients' towards NHIS services. Questionnaire was chosen as the suitable  
327 instrument for data collection considering the fact that it is cost effective, ensures uniformity,  
328 avoids ambiguity, avoids errors, saves time and has a relatively high degree of standardization

## 329 **Data Analysis**

330 Data collected were entered into the computer and analysed using SPSS software version 20.0.  
331 Categorical data were presented as cross tabulations and test of significance was by Chi square at  
332 95% confidence interval. The analyses were carried out using variables such as the socio-  
333 demographic background (independent variables) and dependent variables that included  
334 enrollees' perception of the health insurance scheme, satisfaction with access and quality of care  
335 provided by the Health Care Providers (HCPs) and, suggestions for improving the scheme.

336

337

338

339

## 340 **RESULTS**

### 341 **Socio-demographic Characteristics of Respondents**

**Comment [OD23]:** Any ethical clearance and approval?

**Comment [OD24]:** Consider revising your methodology. Too long.

A total of 278 academic staffs completed the self-administered questionnaire within three month of this study. with There were x males representing 96% of the respondents. and. Ages of respondents ranged from 40 to 49 years, with mean age of 28.6 years and median of 29 years.

Majority x (92.1%) of them were married with 5-10 children (31.7%). About half x (48.9%) of the respondents had been enrolled with the scheme and majority x (59.6%) of them accessed services at University clinic followed by and x (27%) at UDUTH, Sokoto

### Knowledge of the Scheme

Majority x (99.3%) of the respondents were aware of the NHIS, but Oover half x (53%) of the respondents had poor knowledge of the scheme (figure 1)

**Figure 1:** Pie Chart showing overall knowledge scores of the respondents on how NHIS works



354

355

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

Vvariables	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)

Comment [OD25]: Put figure

Comment [OD26]: Put figure

Comment [OD27]: Was it 31.7% of the respondents that had 5-10 children?

Comment [OD28]: Put figure

Comment [OD29]: Put figure

Comment [OD30]: Put figure

Comment [OD31]: Any table for Socio-demographic Characteristics of Respondents

Comment [OD32]: Put figure

Comment [OD33]: Put figure

Formatted Table

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)

**Formatted:** Space After: 0 pt, Line spacing: 1.5 lines

Majority x 71.9% of the respondents preferred NHIS services than the cash and carry system of health care, x 79.1% agreed that it protects families from financial hardship and x 60.4% perceives felt the services provide easy access to healthcare. However majority representing about x 49.1% disagreed that NHIS provides up to date medical services

**Comment [OD34]:** Put figure

**Comment [OD35]:** Put figure

**Comment [OD36]:** Put figure

**Comment [OD37]:** ???How can this be majority?

**Comment [OD38]:** Put figure

**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 when ever needed	34 (25)	66 (48.5)	36(26.5)
Overall scheme service	26 (19.1)	98 (72.1)	12 (8.8)

Among One hundred and thirty six academic lecturers representing 49.1% who enrolled into the scheme, 67.6% indicated their dissatisfaction with the process of enrolment while (68.4%) were satisfied with the attitude of NHIS staff. With regards to the waiting time at NHIS clinic, 58.8% were dissatisfied, and majority 72.8% were not satisfied with the drugs received at the NHIS pharmacy. However, majority 72.1% of the respondents did not satisfied with the overall scheme service. Overall satisfaction of the program in this study shows 72% of the respondents dissatisfied with the scheme.

**Comment [OD39]:** Why Academic lecturers? The methodology showed Non Academic Staff members were also excluded in this study. This statement/ analysis is not clear. Kindly review it.

372

373 **DISCUSSION**

374 Modal age of respondents was 40-49 years, while the mean age was  $28.6 \pm 7.03$ . This falls  
375 within the work-force age. Findings revealed that NHIS program appears to be well patronized  
376 as majority of respondents were married, and whose family members are equally expected to  
377 register as well with the scheme. Awareness of NHIS by the respondents in this study might be  
378 due to the fact that almost all of respondents had tertiary education coupled with their working  
379 environment which might make them to be conversant with any National health policy such as  
380 NHIS in the country. This will enhance their awareness of the benefits of the scheme such as  
381 access to quality healthcare, prompt and adequate treatment of their ailments. The level of  
382 awareness regarding the NHIS in this study was very high 99.3%. This is similar to study done  
383 by Sanusi et al in 2009 to assess the awareness level of NHIS among healthcare consumers in  
384 Oyo state, the report showed that 65% of the respondents are aware of NHIS. Evans and  
385 Shisana found that awareness of the NHI in South Africa was very high, with 90.8% of the  
386 respondents expressing that the NHIS should be a national priority and over 80% saying they  
387 would prefer it to the current healthcare system. Awareness about the NHI in South Africa  
388 exceeded that of Uganda, where only 40.7% had heard about the proposed Social Health  
389 Insurance scheme and more than a half of the respondents (57.3%) had never heard about it. This  
390 post-test level of awareness about NHIS might be attributed to the work of the Monash-Oxfam  
391 NHI project and their collaborating Partners who conducted community consultation processes  
392 to raise awareness about the NHIS in these areas. In this study, 53% of the respondents reported  
393 that they heard or became aware of the NHIS from friends and relatives, this is different from the  
394 study of Evans that found electronic media such as radio or television, as the main sources and  
395 38.3% said they heard or got information from a community organization

**Comment [OD40]:** Fair. But author should provide a more robust implications of the results instead of just comparing with previous results. Consider Reviewing the entire discussion

**Comment [OD41]:** Which report?

396 Knowledge about what the NHIS **was all about** was generally poor. In this study 53% of the  
 397 respondents did not know how the NHIS works. This is somehow different<sup>ce</sup> from finding of  
 398 Iyabode et al (2017) that found 51.4% had good knowledge while 48.6% had poor knowledge  
 399 about NHIS program and also to that of Salawudden (2011), in Kaduna found out that  
 400 majority of the respondents 71.5% had good knowledge of what NHIS entailed and  
 401 also similar to from finding of Study by Geoffrey, (2015) in sSouth Africa on Public  
 402 awareness and knowledge of the NHIS among Client attending Hospital reveal that, 52.4% of the  
 403 respondents had knowledge of the NHI modalities while 44.6% did not know but different with  
 404 the finding of Olugbenga et al,(2010) on Knowledge and attitude of civil servants in Osun state,  
 405 Southwestern Nigeria towards the national health insurance. Shows none had good knowledge of  
 406 the components of NHIS, 26.7% knew about its objectives, and 30% knew about who ideally  
 407 should benefit from the scheme  
 408 Study by Awe and Sanusi 2009, shows about 72% of the respondents indicated that there was  
 409 delay in attending to them for health care services and 87% of respondents did not see any  
 410 significant difference between the services provided under the cash and carry system and the  
 411 NHIS. About half of the respondents perceived NHIS as a means to improve their health, some  
 412 of them perceived NHIS as being capable of providing prescribed drugs. However, some  
 413 respondents preferred to be given monthly medical allowance to take care of their health and that  
 414 of their dependents than receiving treatment under NHIS Some 147 (42%) of the respondents  
 415 rated NHIS services as good. In study by Alnaif, 2016 physician perception of health insurance  
 416 in Saudi Arabia physicians believed that accessibility is a major policy concern and that SHI will  
 417 have a positive effect on access to the health care system.  
 418  
 419 Among One hundred and thirty six academic lecturers representing 49.1% who enrolled into the  
 420 scheme 67.6% indicated their dissatisfaction with the process of enrolment while (68.4%) were  
 421 satisfied with the attitude of NHIS staff. With regards to the waiting time at NHIS clinic, 58.8%  
 422 were dissatisfied, and majority 72.8% did not satisfied with the drugs received at the NHIS

423 pharmacy, however majority 72.1% of the respondents did not satisfied with the overall scheme  
424 service.

425 Overall satisfaction of the program in this study shows 72% of the respondents  
426 dissatisfied with the scheme this is similar to the finding of Salawudden (2011) that shows  
427 66% dissatisfaction with the program and 38% respondent enrolled in the  
428 program. Study conducted by Iyabode and Esther also reveal only, 48.6% respondents were  
429 satisfied with the services of the scheme

### 430 Conclusions

431 Based on findings of this study, it indicate thaet respondents agreed that NHIS service provided  
432 easy access to healthcare, protected families from financial hardship of large medical bills and  
433 preferred NHIS services than cash and carry system of healthcare, but showeds dissatisfaction in  
434 the process of enrollment with the NHIS. This implies that the administrative part of the scheme  
435 wasis very ineffective. Since registration is an administrative duty and is the first process of  
436 enrolment into NHIS, which should givinge the first impression about the Scheme, the NHIS  
437 scheme should give it an the attention that made needed towards ensuring enrollees'  
438 satisfaction, the enrollees satisfied with it.

### 439 Recommendations

440 The following recommendations were made:

- 441 (I) Removal of all bottlenecks encountered in the registration process in order to fast  
442 track registration of new and existing employees into the scheme, by introducing the  
443 National Mmobile Hhealth insurance program (NMHIP). it's a novel concept, that  
444 provides mobile networks operators the platform to register, select HMO and provider  
445 and choose payment option and plans, all on their mobile phone, and at their  
446 convenience.

**Comment [OD42]:** The specific areas of dissatisfaction that need to be addressed should be highlighted. The author should suggest specific ways these can be addressed instead of leaving it loose and open.

**Comment [OD43]:** A more robust conclusion needed based on results.

**Comment [OD44]:** NMHIP is a different program from the Formal sector programme of the NHIS. How does it provide solutions to the formal sector program?

(II) Compulsory enrolment into the scheme should be enforced by the employers at the onset of recruitment process for all working Nigerians, starting with those working in government organizations. 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.

(III) Health Maintenance Organizations and healthcare providers must realize that enrollees have the right to choose **who** their service providers **are** and **can** change to another when not satisfied with services rendered. Therefore, it is recommended that every provider strive to provide the best of services and the monitoring agencies (the clinic medical directors) should step up their monitoring antennae in order to curb the menace of dissatisfaction which is fast becoming common place in the scheme.

(IV) Several Nigerians are not fully enlightened in the components and structure of the NHIS. The researcher recommends a massive and far reaching enlightenment campaign in form of seminars, workshop and publications to educate the populace on the scheme.

**Comment [OD45]:** Are the Medical Directors the monitoring agencies?

**Comment [OD46]:** What are the roles of NHIS, the regulatory agency and the HMOs in ensuring standards of service , patient satisfaction and advocacy?

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**Comment [OD47]:** -The references need thorough review.  
 -Many of the references are more than 10 years  
 -Pick a referencing style and be consistent.

**Comment [OD48]:** The paper needs a thorough review to make it compendious and articulate.