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Knowledge, Enrolment and Perception of the National Health Insurance Scheme (NHIS) among Staff of a Tertiary Hospital in South-South Nigeria

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ABSTRACT: Background: The National Health Insurance Scheme (NHIS) in Nigeria was introduced to enhance the affordability and accessibility of healthcare, particularly for formal-sector employees. The study aimed to assess healthcare workers' knowledge and perceptions towards NHIS at Irrua Specialist Teaching Hospital (ISTH), Irrua. **Methods**: A descriptive cross-sectional study design was employed, using a structured questionnaire to collect the data. The data were analysed using the Statistical Package for the Social Sciences (SPSS) software version 21.0. Statistical significance was set at $p < 0.05$. **Results**: The study population comprised 315 Health Care Workers (HCWs), with an average age of 40.04 years (SD = 10.21), ranging from 26 to 49 years. The study revealed a high level of NHIS awareness, 296 (94.0%), with hospital seminars, being the predominant source of information, 276 (93.2%). Most of the respondents, 193 (61%), had adequate knowledge of NHIS. Two hundred and seventy-seven (93.6%) enrolled in NHIS, and 225 (81.2%) had utilized the scheme in the last 6 months. Among those who utilized the scheme, 201 (72.0%) were satisfied with the quality of services The respondents' knowledge and perception of the NHIS were significantly associated with age (p=0.001) and cadre (p=0.001); older respondents and doctors, nurses, and laboratory scientists had greater knowledge and more positive perceptions of the NHIS. **Conclusion**: Over four-fifths of the respondents were aware of NHIS, and two-thirds had adequate knowledge of it. Over half of the respondents utilized NHIS for paediatric problems and the respondents' perception of NHIS was largely positive. There should be NHIS education campaigns, and services offered by NHIS-accredited institutions need to be improved.

KEYWORDS: Knowledge, Perception, Health, Insurance, Scheme, NHIS

INTRODUCTION

A health insurance scheme is "an arrangement in which contributions are made by or on behalf of individuals or groups (members) to a purchasing institution (a fund) which is responsible for

purchasing covered services from providers on behalf of the members of the scheme.[1] It is primarily a tool to achieve universal health coverage (UHC); which simply entails providing financial security against healthcare costs and reducing the risk of medical debt.[2, 3] This is further expressed in its inclusion by the United Nations as the third Sustainable Development Goal (SDG3)[3] The National Health Insurance Scheme (NHIS) has been successfully implemented in both high- and low-income countries worldwide.[4] Its implementation is particularly crucial in Sub-Saharan Africa (SSA) to achieve the UHC mandate of ensuring financial protection and access to needed health care for individuals whenever and wherever they need it.[5] Funds used to finance the NHIS may be raised primarily from direct or indirect taxes, donor funding, co-payments, voluntary prepayments, and mandatory prepayments, which are accumulated in fund pools.[6]

The journey towards establishing a health insurance system in Nigeria began in 1962, with an initial bill proposal made for Lagos state. It took several decades before the National Health Insurance Scheme (NHIS) was signed into law in May 1999, under the NHIS Act 35 of 1999.[5] However, irrespective of the robust nature of the NHIS package and its mandate to meet the Sustainable Development Goals (SDGs), out-of-pocket expenditure (OOP) accounts for over 70% of health expenditure in Nigeria, and its health performance has been suboptimal over the last two decades.[5, 7, 8] According to recent estimates, only about 5% of Nigerians have health insurance, and public funds account for 25% of total health spending, while the private sector contributes 75%; with OOP by families accounting for up to 95% of the private sector share.[9,10]

The challenges faced in using the NHIS range from inequitable resource distribution, decaying infrastructure, poor management of human resources and a weak referral system. These challenges are notably worse for individuals in the informal sector and those of low economic means.[8,11] Among the challenges plaguing the health insurance scheme is the failure to mandate enrollment for the entire population, resulting in limited adoption at the state level. Thus, only about 5 million Nigerians, representing less than 5.0% of the population, have insurance coverage through the NHIS.[12] Furthermore, a substantial gap remains, as government employees do not appear to be utilising the NHIS to its full extent. The scope of coverage of NHIS for the public and organised private sector includes: the employee, spouse and four biological children below the age of 18 years. Additional payments cover more dependents, including parents or children over 18 years old.[13] This study aimed to assess staff's knowledge and perceptions of the NHIS scheme at Irrua Specialist Teaching Hospital, Irrua.

Materials and Methods

A descriptive cross-sectional study was conducted among the staff of Irrua Specialist Teaching Hospital (ISTH), Irrua. This institution, located in Irrua, Edo State, is a key Centre for the treatment and research of Viral Hemorrhagic Fevers. It provides referral services to nearby states and rural areas, including Delta, Ondo, Osun and Kogi State.

The study population consisted of healthcare workers, including physicians, nurses, laboratory technicians, pharmacists, and Community Health Extension Workers. The study was conducted over six (6) months, from January to June 2025.

The study population consisted of hospital staff who had been employed for at least 6 months.

Sample Size Estimation

With the use of the Cochrane formula for sample size determination in a descriptive study,

$n=z^2pq/d^2$

where:

n=desired sample size (when the population is greater than 10,000)

z = standard normal deviate, usually 1.96

p = proportion of those with adequate knowledge of NHIS, let us use 50%,

q=1.0-p

n=400.

Therefore, using the formula for sample size determination, when the population is <10,000 :

$$n_f = \frac{n}{1+(n)/(N)}$$

n_f = the desired sample size when the population <10,000

n = the population when the desired sample size is 10,000 or more.

N = the estimate of the population size.

Therefore, the sample size was 286, but considering an attrition rate of approximately 10%, the minimum sample size, n, was estimated to be 315.

Sampling Method

A stratified sampling method was employed in the study. The number of respondents selected from each stratum (department) was determined using

proportional allocation, based on the size of each department.

Data collection

The data were collected using a self-administered questionnaire that focused on staff's knowledge and perceptions of the health insurance scheme.

The questionnaire collected data on staff perceptions and awareness of the NHIS, as well as their sociodemographic characteristics. It was divided into three sections: Section A covers sociodemographic characteristics; Section B assesses staff's knowledge of NHIS; and Section C examines staff's perceptions of NHIS. A pilot test of the questionnaire was conducted in a private facility in Edo State, which is believed to have received NHIS accreditation prior to data collection.

Data Analysis

The data were analysed using the Statistical Package for the Social Sciences (SPSS) software version 21.0 (SPSS Inc., Chicago, USA). Knowledge and perceptions were assessed using descriptive statistics. The results were displayed in numerical, tabular, and graphical formats. A chi-square test was utilised to examine the associations between knowledge and perceptions of NHIS and sociodemographic variables.

Respondents' perception of the NHIS scheme was assessed using 9 questions on a 2-point Likert scale (Positive/satisfied to negative/dissatisfied). A positive response to any question was given a score of 1, while a negative response was given a score of 0, with a minimum and maximum obtainable score of 0 and 9, respectively. The total score for each respondent was converted to a percentage and classified as either a negative perception of NHIS (less than 50%) or a positive perception of NHIS (50% or above). Respondents' knowledge of NHIS was assessed using eight (8) questions, with some having multiple responses. A score of 1 was awarded for any correct response, while a score of 0 was awarded for any incorrect response, with the maximum obtainable score being 8. The total score for each respondent was converted to a percentage and classified as inadequate knowledge (less than 50%) or adequate knowledge (50% or more).

Ethical Consideration

Approval was obtained from the Health Research and Ethics Committee (HREC) of Ambrose Alli University, Ekpoma, with Ethical Approval Number: HREC-AAU-23-0168. Respondents' informed consent was sought before participating. All data collected was anonymised and stored securely to ensure participants' confidentiality.

Result

Most respondents, 74 (23.5%), were between 42 and 49 years old, with an average age of 40.04 years (SD = 10.21). The distribution of genders was approximately equal, with 50.2% women and 49.8% men. Approximately 1.9% of participants lacked formal education, whereas the majority, 240 (76.2%), had higher degrees. Doctors and nurses were the largest HCW cadres, each contributing 92 (29.2%) to the survey. Esan was the most prominent ethnic group, 253 (80.3%), and Christianity was the most common religion, 275 (87.3%). Most respondents were married, 261 (82.9%), but fewer were engaged, 14 (4.4%) or single, 40 (12.7%). Nearly half (46.7%) had worked for fewer than five years, and 89 (28.3%) had worked for more than ten years, with an average of 6.3 years of service.

Table 2 presents details on respondents' awareness and sources of information about NHIS. Most of the respondents, 296 (94.0%) were aware of NHIS. Hospital seminar, 276 (93.2%) was the most common source of information on NHIS. This was closely followed by Television 234 (79.1%) and family and friends 246 (83.1%). Only about 4.4% of respondents stated that social media was their source of information about NHIS.

In Table 3, most of the staff who were aware of the NHIS scheme 259 (87.5%) stated that NHIS was for everyone. All the respondents (100%) were aware of the age ranges covered by the NHIS scheme. NHIS covered most family members: 96.3% of spouses, 100% of children, and 87.5% of parents; however, 208 (70.3%) reported that friends could be. -The average family coverage included 65 (21.9%) for three to four individuals and 232 (78.1%) coverage for five to six individuals.

Figure 1 shows the average level of knowledge among the respondents regarding NHIS. Sixty-one per cent of respondents had good knowledge of NHIS, and 39% had poor knowledge.

Table 4 reveals respondents' enrolment and perceptions of NHIS.

Two hundred and seventy-seven (93.6%) respondents enrolled in the NHIS scheme in ISTH. Those who did not enroll in the scheme cited reasons such as lack of adequate information 3(1.0%), dislike for the scheme 6 (15.79%), unclear policy 2 (31.58%), preference for out-of-pocket payments 4 (10.53%), and seeing it as

similar to out-of-pocket payments (21.05%). Participation in other health insurance schemes is less common, with 31.4% enrolled in at least one other scheme. Among those in other schemes, most (79.6%) have been members for 0–2 years, and 20.4% for 3–5 years. NHIS accessibility is reported as easy by 82.8% of respondents, while 17.2% report that it is challenging. Overall, 201 (72.0%) of the respondents were satisfied with the scheme. But 40 (15.1%) of the respondents were not satisfied with the scheme.

Among the respondents, 221 (74.7%) believed a health insurance scheme was necessary, and 222 (75.0%) thought the NHIS could reduce out-of-pocket health expenses. Most respondents, 236 (79.7%), think NHIS is cheaper, and 221 (71.6%) would encourage others to register. Two hundred and four (68.9%) trust the NHIS scheme, and 210 (70.9%) believe it promotes prompt healthcare-seeking behaviour. Additionally, 220 (74.3%) stated that NHIS provides quality services.

Among the respondents who had enrolled in the NHIS scheme, 255 (92.0%) had an NHIS card, and 225 (81.2%) had utilized it in the last 6 months. A greater proportion of the respondents had utilized it twice in the last 6 months, 120 (43.3%). This was followed by those who had utilized it once, 55 (20.0%). As regards the services utilized by staff, most of them, 150 (54.1%) utilized the NHIS scheme for child health problems in the last 6 months. This was closely followed by laboratory services, 140 (50.5%). About 133 (48.0%) respondents had surgical procedures using the scheme. The least utilized service was dental, 12 (4.3%). (Table 5).

Table 6 shows the relationship between the socio-demographic variables and the knowledge and perception of the respondents towards NHIS. Across age groups, knowledge levels generally improved with age, peaking at 80.3% among those aged 34–41 years. However, there was no statistically significant relationship between knowledge of NHIS and respondents' age group (p=0.510). The respondent's perception towards NHIS was more positive with increasing age. This relationship was also not statistically significant (p=0.499).

Educational level had a strong influence: those with tertiary education had the highest level of adequate knowledge (87.1%) and the most positive perceptions (60.8%), whereas respondents with lower levels of education—especially those with no formal education or only primary/secondary—showed predominantly inadequate knowledge and overwhelmingly negative perceptions. The relationships between education and the knowledge of NHIS (P=0.000) and perception towards NHIS (p=0.000) were statistically significant.

Occupation/cadre was also strongly linked to knowledge and perceptions of the NHIS. Whereas doctors, nurses, and laboratory scientists had the highest level of adequate knowledge, orderlies, labourers, and other staff had the lowest level. This relationship was statistically significant(p=0.000). In the same vein, doctors, nurses and laboratory scientists had a statistically significant positive attitude towards NHIS compared to the other cadre (p=0.000). There was no statistically significant relationship between years of service among the respondents and their knowledge (p=0.645) and attitude (p=0.100) towards NHIS.

Discussion

In this study, the respondents were predominantly middle-aged professionals, with an average age of 40 years (±10.21 years). This age distribution aligns with previous studies in Nigeria, which showed that most National Health Insurance Scheme (NHIS) participants were between 30 and 50 years old—a demographic that represents the active working-class population, who make up the staff strength of tertiary health institutions.[14-16] The nearly equal representation of males (49.8%) and females (50.2%) among the participants reflects a balanced workforce. This gender distribution is consistent with findings from Mthatha General Hospital in South Africa, where healthcare workers also exhibited a balanced gender ratio, with women slightly outnumbering men in health-related roles.[17] Most respondents (76.2%) had a tertiary education. This was comparable to the educational attainment of respondents in a study conducted in Southwest Nigeria, where 86.0% had a tertiary education.[18] It is also a reflection of the average educational status of HCWs at a tertiary health institution, the country's highest referral centre.[19]

Doctors and nurses each made up about a quarter of the respondents, followed by laboratory scientists (14.9%) and administrative staff (15.2%). This distribution reflects the typical structure of the healthcare workforce in a tertiary health institution in Nigeria, where these professionals also dominate.[20] The ethnic composition of the respondents is predominantly Esan (80.3%), reflecting the

demographic makeup of the Edo Central Senatorial District, the study area.

This study revealed a high level of awareness about NHIS; with over four-fifths of the respondents having heard of it. This is consistent with a previous report from Rivers State, Nigeria, in which 99.7% of respondents were aware of the NHIS.[21] It is also comparable to reports from studies carried out in Southeast Nigeria and South Africa.[22, 23] However, it is at variance with findings from Southwest Nigeria, where 72.6% of the respondents had not heard of the state health insurance scheme.[24] The high level of awareness in this study may be related to the fact that most of the respondents had a tertiary education and they work in the highest level of medical care in Nigeria.[12] The main sources of information were hospital seminars (93.2%), family and friends (83.1%), followed by television (79.1%). Other sources of information, such as newspapers (45.9%), radio (19.9%), and social media (4.4%), were less influential. These results are significantly higher than reports from previous research in South-south and South-east Nigeria, where about 33.8% and 43.2% of HCWs reported that workplace sensitization programs and seminars constituted the primary source of their information and increased their NHIS awareness respectively.[21, 22] On the contrary, researchers from South-south Nigeria found that radio and newspapers played a more significant role in NHIS awareness, particularly among civil servants outside healthcare settings.[25]

As regards respondents' knowledge of NHIS, the responses were predominantly adequate: slightly over four-fifths of respondents believed that NHIS was intended for everyone, and all respondents were aware of the age groups covered by the scheme. Most respondents (96.3%) felt that spouses, children (100%), and parents (87.5%) are covered by the NHIS package. Thirty percent of the respondents stated that NHIS did not cover friends. Furthermore,78.1% of respondents reported that NHIS covers 5 to 6 family members. Overall, close to two-thirds of respondents had adequate knowledge of NHIS, but 39% had inadequate knowledge. This finding is incongruent with a previous report from Kano, in which 48.5% of the respondents had adequate knowledge, and 80.5% had inadequate knowledge of NHIS.[26] Similarly, another study in Northern Nigeria reported that 52.5% of respondents had inadequate knowledge of the NHIS.[27] Again, the predominantly adequate knowledge of the respondents in this study may not be unrelated to the high educational status and competence level of the staff at a tertiary level of care.

The respondents' perception of NHIS was highly positive. Although about 93.6% of respondents were active on the scheme, the process is often influenced by the scheme's policy, which mandates all employees of federal institutions to subscribe.[3, 13] This finding corroborates previous reports from tertiary health institutions in Nigeria.[16, 20] Studies of civil servants outside the tertiary health institutions show lower NHIS enrollment rates, often linked to the implication of the scheme, which has been recently corrected by the National Health Insurance Authority Act (NHIA).[3, 13] Among the 6.4% of respondents who do not utilize the NHIS, irrespective of the policy, their primary reasons included: unclear scheme policies (31.58%), the perception that it resembles out-of-pocket payments (21.05%), and a general dislike for the scheme (15.79%). These concerns are consistent with a previous report from researchers in Nigeria, which shows that mistrust, poor service quality, and a lack of transparency often discourage people from enrolling in the NHIS.[18]

About one-third of respondents who were not enrolled in the NHIS had alternative health insurance schemes, indicating some dissatisfaction with NHIS coverage or service quality. This trend is consistent with other studies that link preferences for private insurance to perceptions of improved healthcare access and coverage relative to the NHIS.[15, 28]

Among those utilizing the NHIS, about four-fifths of them found the NHIS easily accessible, while 17.2% experienced difficulties. This level of accessibility is significantly higher than what has been reported in non-hospital settings, where challenges such as fewer accredited providers and administrative delays are more common.[14] Moreover, about three-quarters of the respondents believed that having a health insurance scheme was essential. This is in keeping with the widely accepted view from a previous study that health insurance helps reduce financial barriers to accessing healthcare.[8] This opinion is also comparable to the report of a recent study on respondents' views on the scheme's effectiveness and their reluctance to enrol.[29] Nonetheless, over three-quarters of respondents believed that NHIS helped reduce out-of-pocket healthcare costs, and nearly 80% considered NHIS more affordable than paying for services directly. These findings corroborate previous accounts regarding enrollees in health

insurance schemes, who generally experience a lower financial burden than those who pay out-of-pocket.[28, 30] Although NHIS offers typical cost advantages, these benefits are not guaranteed for all users. Delays in reimbursements and service denials can result in unexpected out-of-pocket expenses, diminishing the scheme's overall financial savings.[14] All in all, about three-quarters of the respondents were satisfied with the quality of services offered by the scheme. This was relatively comparable to a report from Ebonyi State, Nigeria, where 61.8% of the enrollees were satisfied with NHIS services.[31] It was slightly higher than the report of s systematic review of Patient satisfaction with the Nigerian NHIS scheme for the past two decades since its establishment, which reported that 64% of the enrollee were satisfied with the services. This report implies that despite the shortcomings of this scheme, clients are relatively satisfied with the quality of services.

Respondents' knowledge and perception towards NHIS in this study revealed a statistically significant association with HCWs cadre and educational level. Doctors, nurses, and laboratory scientists (p=0.001) and the more educated respondents (p=0.001) had more adequate knowledge of the NHIS. Similarly, Doctors, nurses, and laboratory scientists (p=0.001) and more educated respondents (p=0.001) had a more positive attitude towards NHIS than the others. The notable predominance of tertiary education among the respondents is beneficial because it positively affects their knowledge and perceptions of the NHIS. This finding is consistent with previous reports showing that higher educational levels are positively associated with health insurance uptake, as more educated individuals are better able to appreciate the benefits and are therefore more likely to enrol.[11, 12, 30]

Conclusion

Over four-fifths of the respondents were aware of NHIS, and this may be related to their high educational status. Overall, close to two-thirds of the respondents had adequate knowledge of NHIS.

The perception of the respondents towards NHIS was largely positive, with over four-fifths of those actively utilizing it agreeing that the services were accessible and three-quarters agreeing that they were impressed by the quality of services.

Those not using the NHIS scheme expressed displeasure with perceived policy uncertainties and stated that the services were not different from OOP.

The respondents' knowledge and perception of NHIS were statistically significantly associated with their educational status and HCW cadre, with those with higher educational status and doctors, nurses, and laboratory scientists having better knowledge and a more positive perception of NHIS.

Recommendation:

There should be NHIS education campaigns, and services offered by NHIS-accredited institutions need to be improved.

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Table 1: Socio-Demographic Characteristics of Respondents

Socio-Demographic Characteristics	Frequency (N=315)	Percent
Age (Mean = 40.04±10.21 years)		
18-25 years	27	8.6
26-33 years	74	23.5
34-41 years	71	22.5
42-49 years	74	23.5
50-57 years	69	21.9
Sex		
Male	157	49.8
Female	158	50.2
Religion		
Christianity	275	87.3
Islam	40	12.7
Ethnicity		
Esan	253	80.3
Bini	22	7.0
Etsako	15	4.8
Yoruba	9	2.9
Hausa	3	1.0
Ibo	13	4.1
Marital Status		
Married	261	82.9
Engaged	14	4.4
Single	40	12.7
Level of Education		
No formal Education	6	1.9
Primary Education	21	6.7
Secondary Education	48	15.2
Tertiary Education	240	76.2

Occupation		
Doctor	92	29.2
Nurse	92	29.2
Laboratory Scientist	47	14.9
Orderly	18	5.7
Laborers	18	5.7
Other Staffs	48	15.2
Years of Service Range (Mean = 6.30±5.08)		
<5 years	147	46.7
5-10 years	79	25.1
>10 years	89	28.3

Table 2: Source of Knowledge of National Health Insurance Scheme (NHIS) among Staff of ISTH

	Frequency(N=315)	Percentage (%)
Respondents were asked if they had heard of NHIS?		
No	19	6.0
Yes	296	94.0
Respondents were asked whether they had heard of NHIS on the Radio (N=296)		
No	237	80.1
Yes	59	19.9
Respondents were asked whether they had heard of NHIS on Television		
No	62	20.9
Yes	234	79.1
Respondents were asked whether they had heard of NHIS in the Newspaper		
No	160	54.1
Yes	136	45.9
Respondents were asked whether they had heard of NHIS through social media		
No	283	95.6
Yes	13	4.4
Respondents were asked whether they had heard of NHIS from Family and Friends		
No	50	16.9
Yes	246	83.1
Respondents were asked whether they had heard of NHIS from Hospital Seminars		
No	20	6.8
Yes	276	93.2

Table 3: Assessment of Knowledge of NHIS among the respondents

	Frequency (N=296) **	Percent (%)
Is the NHIS for everyone?		
No	37	12.5
Yes	259	87.5

Do you know the age category of persons that the scheme covered?		
Yes	296	100.0
No	0	0.0
Does the NHIS cover your Spouse? (N=296)		
Yes	285	96.3
No	11	3.7
Does the NHIS cover your children?		
Yes	296	100.0
No	0	0.0
Does the NHIS cover your parents?		
Yes	259	87.5
No	37	12.5
Does the NHIS cover your friends?		
Yes	208	70.3
No	88	29.7
Range of persons in the family covered by the scheme		
3-4	65	21.9
5-6	232	78.1

**** =staff who were aware of the scheme**

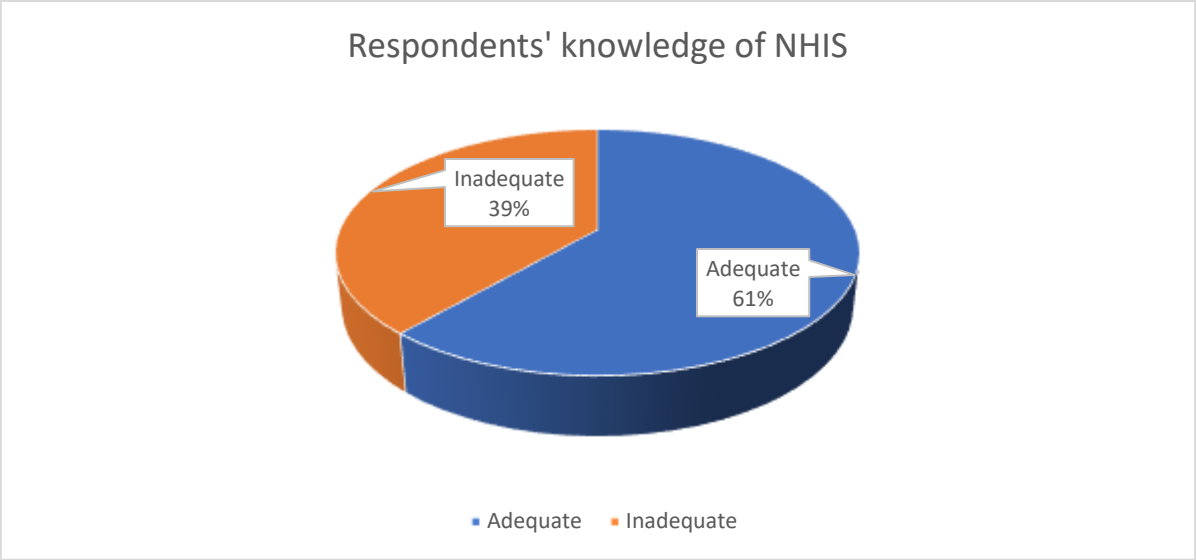

Figure 1: Respondents' knowledge of NHIS

Table 4: Enrolment and Perception of Respondents Towards NHIS

		Frequency	Percent (%)
Are you enrolled in the NHIS?	No	19	6.4
	Yes	277	93.6
	Don't know about the scheme at all	3	1.0.00
	Don't like the scheme	6	15.79
	The scheme policy is not clear	2	31.58
	Prefer out-of-pocket payment	4	10.53
	Similar to the out-of-pocket payment	4	21.05

Involved in another health insurance scheme?	No	203	68.6
	Yes	93	31.4
If yes, for how long have you been enrolled? (N=93)	0-2 years	74	79.6
	3-5 years	19	20.4
	>5 years	0	0.0
Is NHIS easily accessible? (n=296)	No	51	17.2
	Yes	245	82.8
Do you think a health insurance scheme is necessary?	Yes	221	74.7
	No	75	25.3
Do you think the NHIS will reduce your out-of-pocket health expenditures?	Yes	222	75.0
	No	74	25.0
Do you think it is cheaper than out-of-pocket payment?	Yes	236	79.7
	No	60	20.3
Will you encourage others to register under NHIS?	Yes	212	71.6
	No	84	28.4
Do you trust the NHIS scheme?	Yes	204	68.9
	No	92	31.1
Does NHIS make people seek health care promptly?	Yes	210	70.9
	No	86	29.1
Are you satisfied with the NHIS services?	Agree	201	72.0
	Neutral	36	12.9
	Disagree	40	15.1

Table 5: Utilization of NHIS among the staff of ISTH

Variables	**Frequency (n-277)**	**Percentage (%)**
Have you obtained your NHIS card?		
Yes	255	92.0
No	22	8.0
Total	277	100
Have you utilized NHIS for treatment in the last 6 months?		
Yes	225	81.2
No	52	18.8
Total	277	100
How many times have you utilized NHIS in the last 6 months?		
None	25	9.0
Once	55	20.0
Twice	120	43.3
Three times	44	16.0
More than three times	32	11.7
Total	277	100
Services used under NHIS (Multiple responses)		
Maternal services	100	36.1

Laboratory services	140	50.5
Radiology service	25	9.0
Dental Service	12	4.3
Ophthalmology service	30	10.8
Surgical service	133	48.0
Paediatric services	150	54.1
Others	40	14.4

*Others include mental health, dermatology, STI clinic and physiotherapy

Table 6: Relationship between Knowledge and Perception of NHIS among the respondents

	Knowledge		**Perception**	
Category	**Inadequate (%)**	**Adequate (%)**	**Negative (%)**	**Positive (%)**
Age Group				
18-25 years	9 (33.3%)	18 (66.7%)	16 (61.5%)	10 (38.5%)
26-33 years	22 (29.7%)	52 (70.3%)	33 (47.8%)	36 (52.2%)
34-41 years	14 (19.7%)	57 (80.3%)	33 (50.8%)	32 (49.2%)
42-49 years	23 (31.1%)	51 (68.9%)	39 (55.7%)	31 (44.3%)
50-57 years	20 (29.0%)	49 (71.0%)	29 (43.9%)	37 (56.1%)
X^2(p-value)		3.292 (.510)		3.361 (.499)
Level of Education				
No formal Education	4 (66.7%)	2 (33.3%)	5 (100.0%)	0 (0.0%)
Primary Education	16 (76.2%)	5 (23.8%)	15 (93.8%)	1 (6.3%)
Secondary Education	37 (77.1%)	11 (22.9%)	37 (97.4%)	1 (2.6%)
Tertiary Education	31 (12.9%)	209 (87.1%)	93 (39.2%)	144 (60.8%)
Fisher's p-value		**0.0000**		**0.0000**
Occupation				
Doctor	3 (3.3%)	89 (96.7%)	52 (56.5%)	40 (43.5%)
Nurse	13 (14.1%)	79 (85.9%)	11 (12.0%)	81 (88.0%)
Laboratory Scientist	7 (14.9%)	40 (85.1%)	24 (51.1%)	23 (48.9%)
Orderly	12 (66.7%)	6 (33.3%)	14 (93.3%)	1 (6.7%)
Laborers	16 (88.9%)	2 (11.1%)	14 (100.0%)	0 (0.0%)
Other Staff	37 (77.1%)	11 (22.9%)	35 (97.2%)	1 (2.8%)
Fisher's p-value		**0.0000**		**0.0000**
Years of Service				
<5 years	42 (28.6%)	105 (71.4%)	75 (54.7%)	62 (45.3%)
5-10 years	19 (24.1%)	60 (75.9%)	30 (40.0%)	45 (60.0%)
>10 years	27 (30.3%)	62 (69.7%)	45 (53.6%)	39 (46.4%)
X^2(p-value)		0.877 (.645)		4.609 (.100)

X^2-chi-square, p- level of significance (<0.05)