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Assessment of Knowledge and Rate of Service Uptake of Community Based Health Insurance among Traders in Akpan Andem Market, Uyo, Akwa Ibom State, Nigeria

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Abstract

Community Based Health Insurance (CBHI) is a form of micro health insurance, which is a health insurance targeting low-income people. The specific feature of CBHI is the community involvement in driving its setup and in its management. Traditional CBHI models are small, voluntary, and often include the pooling of health risks and funds within a community. In Nigeria, many CBHI schemes have had limited success, suffering from low membership levels, and having issues such as regressive financing, poor or lack of involvement amongst scheme members amongst others. The study assessed the level of CBHI knowledge and rate of service uptake of CBHI among the traders. 300 Questionnaires were administered to the traders by face-to-face interview which gave the respondents the opportunity to respond to both the structured and open-ended questions. Inferential statistical tests were used to test the various research hypothesis that arose from the research questions in the study. Various statistical tests such as Chi-square, comparison of column proportions, correlational tests, and multiple regression were used. The result shows a mean knowledge score of 33.79 ± 3.22 with their scores ranging from 25 – 42. 2%. There was no significant relationship between knowledge level and service uptake (p = 0.351). Findings from this study noted that although awareness is poor, a good quota of the participants (79%) still have overall good knowledge of CBHI schemes. Hence, it will be beneficial to leverage on this concretize more efforts towards encouraging people to enrol with the CBHI schemes.

Keywords*: Community Based Health Insurance, Community Involvement, Voluntary, Health Risk, Regressive Financing, Inferential Statistics, Knowledge Level, Service Uptake.*

Introduction

Community Based Health Insurance (CBHI) is a form of micro health insurance, which is an overarching term for health insurance targeted to low-income people. The specific feature of CBHIs is the community involvement in driving its setup and in its management. Traditional CBHI model are small, voluntary, and often include the pooling of health risks and funds within a community. Membership premiums are often a flat rate and independent of individual health risks. Entitlements to benefits are linked to contributions in most cases, and the scheme operates on a not-for-profit basis. Community based health insurance has been prescribed as an effective way of tackling the health care financing challenges in the developing nations [1]. In Africa and Asia, it has been adopted and used effectively. It has

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helped in reducing the challenges of access, especially in small communities that cannot be reached by other schemes [2].

In Nigeria, many CBHI schemes have also had limited success, suffering from low membership levels, and having issues such as regressive financing, poor or even lack of involvement amongst scheme members, inadequate promotion, and inequitable service provision [3].

Investigating the level of knowledge and CBHI associated factors by traders in Uyo Main Market, Uyo Akwa Ibom State, Nigeria is a good basis for comparing findings whether individuals differ significantly based on demographic characteristics. This will inform a broad background for comparison and executable decisions across other community-based organisations and cooperatives and for the entire Akwa Ibom State. Despite increasing support and spread of CBHIS as reported in several studies across Africa, enrolment has remained low indicating that CBHIS has continued to fail to reach satisfactory levels of participation amongst targeted population [4]. This could be because of negative attitude towards the scheme sequel to poor community-based awareness and sensitization. Poor awareness of Community Based Health Insurance in AkwaIbom, Nigeria has contributed to low service uptake and renewal in most communities. To validate this fact, several studies have been carried out to ascertain the level of awareness of this scheme in some parts of Nigeria.

This study thus is aimed at assessing the level of CBHI knowledge among traders and the rate of service uptake of CBHI among traders in Akpan Andem Market, Uyo Akwa Ibom State, Nigeria.

In this study, the research questions were carefully selected to give insight about the topic, and they gave greater evidence for the knowledge and factors associated with uptake of Community-Based Health Insurance (CBHI) by traders in Akwa Ibom State Nigeria. The research questions have been formulated based on the FINER criteria [5].

The societal and scientific relevance of this research study is that it brings more insight to intrinsic and extrinsic factors affecting uptake of CBHI by traders in Uyo main market and the findings can be used to make high level decisions for promotion of Community Based Health Insurance.

Materials and Methods

The research setting was in a community main market called the Akpan Andem Market in Uyo metropolis, Akwa Ibom State, Nigeria.

In Akwa Ibom state, very little research work has been done in assessing CBHI knowledge; and ethno-cultural and socio-economic factors that affect service uptake. The study questionnaire was administered to individual traders and shop owners within the Uyo main market.

The Uyo main market - Akpan Andem market – is the central market in the state capital with total of 1500 shops. The study population comprised of traders in the main market who are greater than or equal to 18 years.

The questionnaires were administered to the traders predominantly by face-to-face interviewing which gave the respondents the opportunity to respond to both the structured and open-ended questions. The face-to-face interview style was used to administer the questionnaire by the researcher as against other interviewing styles such as telephone or e-mail or live chat surveys [6].

The eventual sample size was described as the size that strikes a balance between feasibility and desirability [7]. The sample was determined by applying the Cochran's formula for large population which is similar to the Leslie-Kish formula described below:

$$N = \frac{Z^2 p\,(1-p)}{w^2}$$

Where:

N = sample size.

Z = Standard deviation at confidence interval of 95% = 1.96.

p = proportion of one of the study parameters/target characteristics from a previous study = proportion of respondents from the study by [8] in Lagos state, Nigeria, who has had not heard anything about CBHI schemes = 80.2% = 0.8.

w = error variance also described as precision level = 5% = 0.05.

Hence:

$$N = \frac{1.96^2 \times 0.8 \times (1 - 0.8)}{0.05^2}$$

$$N = \frac{3.8416 \times 0.8 \times 0.2}{0.0025}$$

$$N = \frac{0.614656}{0.0025} = 245.8624 \cong 246$$

Applying an attrition rate of 20% to accommodate for participants with inadequate responses and certain errors, the attrition rate value was:

$$20\% \, of \, 246 = 49.2 \cong 49.$$

Hence, final sample size used for this study = 246 + 49 = **295.** To support this, 300 questionnaires were eventually successfully administered.

The face-to-face interview style described was used to administer the questionnaire by the researcher as against other interviewing styles such as telephone or e-mail or live chat surveys [8].

The questionnaire was occasionally interpreted to the respondents in the native language in situations where they do not understand the English version of the question adequately, and administering each questionnaire takes approximately about 10 minutes.

Participants were able to express themselves using the questionnaire as a guide which also has some open-ended questions where the respondents can give any further in-depth explanation to the questions. The free entry of participants into the research without any pre-information also provided responses that are not pre-planned and thus, best suitable for the cause of the research. The participants have been carefully considered to avoid using vulnerable participants that will bring about unnecessary delays given the time for the research.

The interview questions were also pretested in different locations to ascertain potential participants' level of understanding and its implement ability.

Participants free entry into the research was based on chance and it is not researcher driven nor controlled by any external factor.

Data entry was first done with Microsoft Excel and then transferred to IBM-Statistical Package for Social Sciences (SPSS) version 26 where the analysis was done. Descriptive analysis done include the generation of the frequencies, proportions, means, weighted means, standard deviations, and ranges. These were presented in tables and some chart figures. Their ages were grouped into four levels viz: 20 – 29, 30 – 39, 40 – 49, and ≥50. Their occupations were tested at two different levels because some respondents had additional occupations asides trading. Hence, statistical testing using occupation occurred as two different variables viz: "Trading alone versus Trading plus" and "explicit occupation including farming, civil service, etc.".

During inferential analysis, with regards to the marital status, people who are separated or divorced were joined together with those who are widowed since they were all formerly with a partner in a marriage union but currently without any.

The knowledge level of the respondents was calculated with 10 questions using the Likert scale from the 2nd Section of the questionnaire, where correct answers were weighted as 5 while incorrect answers were weighted as 1; hence, if a respondent strongly agrees to a correct assertion, s/he was scored 5 but if strongly agrees to a wrong assertion, s/he was scored 1. Thus, the possible minimum score

was 10 while the possible maximum score was 50. Scores between 10-30 were considered as poor knowledge while scores between 31-50 were considered good.

The acceptability level of the participants was calculated using six items from the 2nd and 3rd sections of the questionnaire at the same Likert scale adaptation illustrated in the previous paragraph. Sequel to this, the possible minimum score was 6 while the possible maximum score was 30. Scores between 6-18 were considered as poor acceptability level while scores between 19-30 were considered good.

Chi-square was used for bivariate analysis where the two variables are categorical in nature. Comparison of column proportions were performed for significant findings after the Chi-square testing to assess the group within the categories that were contributing to the observed significant difference [9].

Correlational tests were used to test for associations between two continuous variables such as knowledge score and acceptability score. Multiple regression was used to test for predictability level from the two continuous variables following a significant correlational finding.

Thematic content analysis was equally used for the single open-ended question which sought to elucidate and provide clear interpretation of participants' information and ways of thought regarding CBHI [10].

A multi-staged sampling technique was used for this study, and this is described as follows:

1. **Stage 1:** Non-probability purposive sampling technique [11] was used to determine the choice of market which is the Uyo Main Market called the Akpan Andem Market.
2. **Stage 2:** Stratified sampling technique used to determine the traders who were involved in the sample pool for the study, and this was equally guided by the exclusion and inclusion criteria for the study.
3. **Stage 3:** This was dependent on number of persons per shop as described further: where more than one person was present in a shop, and they reside in different households, they were all be administered the questionnaire. However, if they were from same household, and were >18years old, **simple random sampling** was used for the selection of the involved participant to avoid duplication of responses.

The research instrument used for this study was a predominantly structured questionnaire consisting of three sections as described below:

1. **Section 1:** This section collected information regarding the socio-demographic characteristics of the respondents including age, gender, occupation, marital status, educational level, religion, and monthly income.
2. **Section 2:** This section contains thirteen items directed towards assessing the awareness and knowledge levels of the respondents regarding CBHIs.
3. **Section 3:** This assessed the acceptability level of the respondents using eight questions. This section also contains an open-ended question to assess other unlisted factors which the respondents believe affect other people's acceptability level towards CBHIs and their uptake.

Inferential statistical tests were used to test the various research hypothesis that arose from the research questions in the study. The various statistical tests used were Chi-square, comparison of column proportions, correlational tests, and multiple regression. Significance was set at a p-value of 0.05.

Results & Analysis

Socio-Demographic Characteristics of Respondents

The respondents were mostly females (56.5%), with age range of 20 – 67 and mean age of 40.97 years. All are traders but 36% of them have other additional engaging occupations asides trading such as farming,

civil service, and so on. More than 90% of them were educationally exposed and more than half of them (53.7%) are married. They are predominantly Christians (88.6%) and mostly average earners with 63.5% of them earning between NGN50,000 – NGN200,000. The sociodemographic details of the respondents are illustrated in Table 1 below:

Table 1. Sociodemographic Characteristics of the Respondents [N = 300]

Variable	**Frequency** N **(%)**
Age (Years)	
Mean ± SD	40.97 ± 10.04
Range	20 – 67
20 – 29	31 (10.3)
30 – 39	116 (38.7)
40 – 49	83 (27.7)
50 and above	70 (23.3)
Educational level:	
Never attended school	26 (8.77)
Primary	44 (14.7)
Secondary	121 (40.3)
Tertiary	72 (24.0)
Post-graduate (Masters, PhD)	37 (12.3)
Sex:	
Male	128 (43.5)
Female	166 (56.5)
Missing	6
Occupation:	
Trader	190 (64.0)
Farmer	44 (14.8)
Civil servant	55 (18.5)
Other	8 (2.7)
Missing	3
Marital status:	
Single	98 (32.7)
Married	161 (53.7)
Separated/divorced	22 (7.3)
Widowed	19 (6.3)
Religion:	
Christianity	263 (88.6)
Muslim	26 (8.8)
African Traditional Religion	6 (2.0)
Others	2 (0.7)
Missing	3
Average monthly income (NGN):	
Less than 50,000	68 (23.2)
50,000 – 100,000	109 (37.2)
101,000 – 200,000	77 (26.3)

201,000 – 500,000	35 (11.9)
Above 500,000	4 (1.4)
Missing	7

NGN = Nigerian Naira

Also, as seen from Table 1 above, 2.7% respondents stated "other" as their occupations and respectively cited Networker, Entrepreneur, Pastor, and Actor as their additional occupations. These will be coalesced into the traders' pool during inferential analysis. The two participants who chose "other" as their religion will be coalesced into the "African Traditional Religion" group during inferential analysis. Only one of these two stated "Eckankar" explicitly as his religion. Finally, with respect to "marital status", during inferential analysis, people who are separated or divorced will be joined together with those who are widowed since they were all formerly with a partner in a marriage union but currently without any.

The Level of CBHI Knowledge among Traders in Akpan Andem Market, Uyo, Akwa Ibom State, Nigeria

The level of knowledge of the respondents were assessed with mixed-up questions in the questionnaire in other to eliminate bias and unsuspecting predictability. The crude findings from the questionnaire interview are presented in Table 2 below.

Item 9 in Table 2 below assesses the awareness level of the respondents regarding CBHI and more than half of them (61.3%) either agreed or strongly agreed not to have ever heard of CBHI scheme.

The knowledge level of the respondents was calculated with 10 out of 13 questions from the Table 2 below, these include: items 1-8, 11 and 12. Using the Likert scale, correct answers are weighted as 5 while incorrect answers are weighted as 1, hence if a respondent strongly agrees to a correct assertion, s/he is scored 5 but if strongly agrees to a wrong assertion, s/he is scored 1. Sequel to this, items, 2, 3 and 12 from Table 2 below were recoded to reflect the correct weight interpretation of the respondents' answers.

Thus, the possible minimum score was 10 while the possible maximum score was 50. Scores between 10-30 were considered as poor knowledge, scores between 31-50 were considered good.

Table 2. Level of Knowledge of CBHI [N = 300]

S/N	Variable	N (%)					Weighted average (Mean ± SD)
		Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)	
1.	CBHI is a good way of helping clients to relive health expenditure	5 (1.7)	13 (4.3)	119 (39.7)	153 (51.0)	10 (3.3)	3.50 ± 0.711
2.	CBHI covers only care from public health institutions	1 (0.3)	29 (9.7)	124 (41.3)	132 (44.0)	14 (4.7)	3.43 ± 0.744
3.	CBHI covers only care within Akwa Ibom State.	5 (1.7)	64 (21.4)	152 (50.8)	75 (25.1)	3 (1.0)	3.02 ± 0.757
4.	CBHI doesn't cover transportation fee	5 (1.7)	33 (11.0)	113 (37.7)	129 (43.0)	20 (6.7)	3.42 ± 0.836
5.	CBHI covers inpatient care	3 (1.0)	18	111	146	21	3.55 ±

			(6.0)	(37.1)	(48.8)	(7.0)	0.755
6.	CBHI covers outpatient care	0	20 (6.7)	99 (33.0)	146 (48.7)	35 (11.7)	3.65 ± 0.771
7.	CBHI will not cover medical care for cosmetic values	3 (1.0)	36 (12.1)	107 (35.9)	129 (43.3)	23 (7.7)	3.45 ± 0.840
8.	Poor knowledge of Community Based Health Insurance contributes to low service uptake in the health sector	2 (0.7)	8 (2.7)	73 (24.3)	169 (56.3)	48 (16.0)	3.84 ± 0.740
9.	I have not heard about Community Based Health Insurance scheme	8 (2.7)	34 (11.3)	74 (24.7)	145 (48.3)	39 (13.0)	3.58 ± 0.945
10.	I am likely to enrol in Community Based Health Insurance if I know much about it	4 (1.3)	14 (4.7)	71 (23.7)	146 (48.8)	64 (21.4)	3.84 ± 0.858
11.	To the best of my knowledge, Community Based Health Insurance increases access to health care services at low cost	0	19 (6.3)	117 (39.0)	146 (48.7)	18 (6.0)	3.54 ± 0.705
12.	Community Based Health Insurance is a means of extorting money from the people	31 (10.3)	99 (33.0)	116 (38.7)	45 (15.0)	9 (3.0)	2.67 ± 0.954
13.	I don't think Community Based Health Insurance is of any benefit	37 (12.4)	109 (36.5)	106 (35.5)	38 (12.7)	9 (3.0)	2.58 ± 0.964

CBHI = Community Based Health Insurance

After calculating for the overall knowledge score of the participants, their mean knowledge score was 33.79 ± 3.22 with their scores ranging from 25 – 42. Using the grouping described above, almost four-fifths of the respondents (79.3%) have a good knowledge of CBHI, and this is described in the pie chart below:

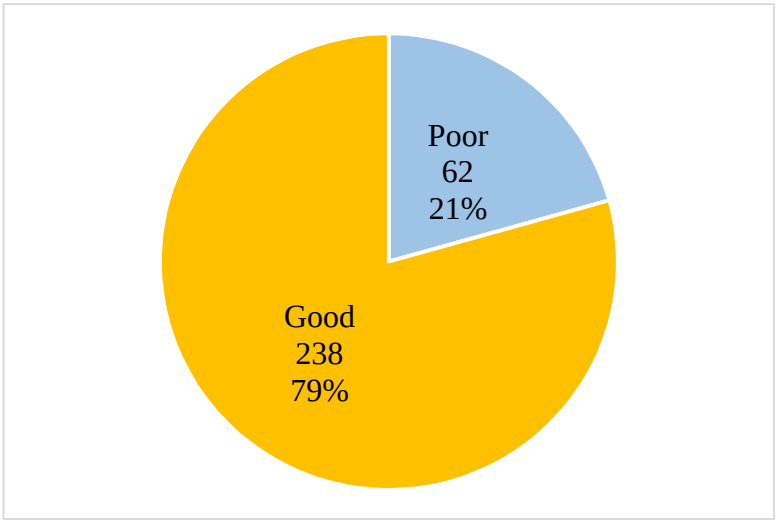

Figure 1. Knowledge Level of the Participants [N = 300]

Factors Affecting Level of Knowledge, Acceptability, and Service Uptake of CBHI by Traders in Akpan Andem Market, Uyo Akwa Ibom State, Nigeria.

The socio-demographic factors affecting these outcomes were assessed using the Chi-square test and with the p-value set at less than 0.05. Using this criterion, it is seen from Table 3 below that educational level is the most determining socio-demographic factor while marital status did not contribute to any difference in any of the outcomes. Interestingly, average monthly income significantly affects only the service uptake rate, and this may mean that even though the respondents may have good knowledge and acceptability of CBHI, their possibility to enrol into the CBHI scheme is strongly dependent on their average monthly income (p = 0.025). The Chi-square and p-values from the bivariate associations of the socio-demographic variables with the dependent outcomes are all illustrated in Table 3 below:

Table 3. Socio-demographic Factors Association with Knowledge Level, Acceptability Level and Service Uptake Rate

Variable	X^2 **(P-Value)**		
	Knowledge level	**Acceptability level**	**Service uptake rate**
Age	4.807 (0.186)	8.171 (0.043)*	1.078 (0.828)
Educational exposure	19.114 (0.000)*	1.232 (0.267)	0.001 (0.977)
Educational level	26.814 (0.000)*	11.547 (0.021)*	9.412 (0.011)*
Sex	7.491 (0.006)*	3.203 (0.074)	0.856 (0.238)
Occupation	9.028 (0.011)*	7.091 (0.029)*	0.627 (0.834)
Occupational engagement	1.111 (0.292)	8.402 (0.004)*	0.323 (0.424)
Marital status	0.137 (0.934)	4.942 (0.085)	0.471 (1.000)
Religion	10.566 (0.005)*	9.154 (0.007)*	0.425 (1.000)
Average monthly income	5.163 (0.306)	2.896 (0.591)	9.071 (0.025)*

*Indicates significant relationship at p-value < 0.05

To further understand the relationships of educational level and average monthly income with the dependent outcomes, the bar charts below were created.

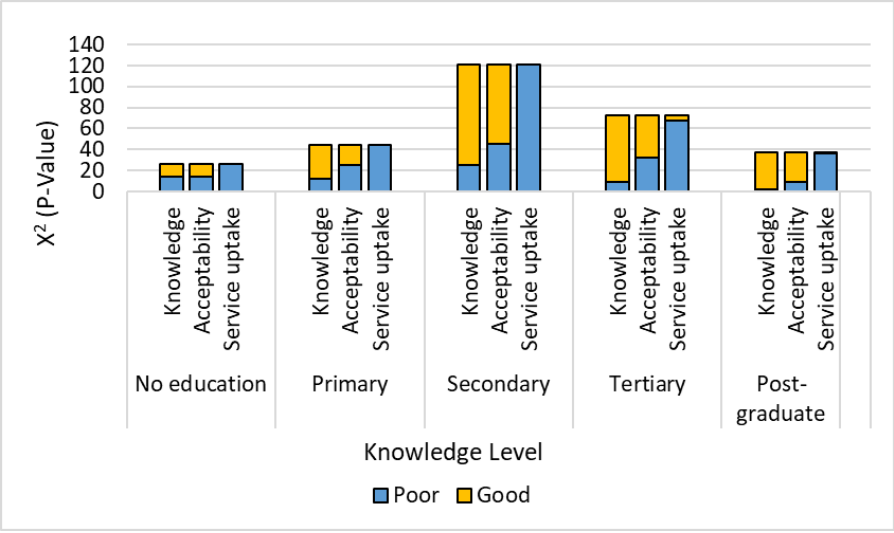

Figure 2. Clustered Stacked Column Representation of Educational Level and the Dependent Outcomes

Factors Affecting the Level of Knowledge of CBHI Scheme

This section explores the relationship of the socio-demographic characteristics of the respondents with their knowledge scores at p-value <0.05. It was found that educational exposure, educational level, gender, occupation, and religion all significantly contributed to the differences in the knowledge level of the participants.

As earlier stated, some variables were modified to achieve better interpretation of the available data, for example, people who specified "other" as their occupation were coalesced into trading and widowed individuals were coalesced with separated/divorced persons. Table 4 below gives more detailed illustration of the findings from the collected data.

Table 4. Socio-demographic Factors Affecting Knowledge [N = 300]

Variable	Knowledge Level N (%)		P-Value
	Poor	Good	
Age (years):			
Mean ± SD	42 ± 11	41 ± 10	0.186
20 – 29	8 (2.7)	23 (7.7)	
30 – 39	17 (5.7)	99 (33.0)	
40 – 49	22 (7.3)	61 (20.3)	
50 and above	15 (5.0)	55 (18.3)	
Educational exposure:			
Yes	48 (16.0)$_a$	226 (75.3)$_b$	0.000*
No	14 (4.7)$_a$	12 (4.0)$_b$	
Educational level:			
Never attended school	14 (4.7)$_a$	12 (4.0)$_b$	0.000*
Primary	12 (4.0)$_a$	32 (10.7)$_a$	
Secondary	25 (8.3)$_a$	96 (32.0)$_a$	
Tertiary	9 (3.0)$_a$	63 (21.0)$_b$	
Post-graduate (Masters, PhD)	2 (0.7)$_a$	35 (11.7)$_b$	
Sex:			
Male	36 (12.2)$_a$	92 (31.3)$_b$	0.006*
Female	24 (8.2)$_a$	142 (48.3)$_b$	
Occupation:			
Trader	38 (12.8)$_a$	160 (53.9)$_a$	0.011*
Farmer	16 (5.4)$_a$	28 (9.4)$_b$	
Civil servant	7 (2.4)$_a$	48 (16.2)$_a$	
Occupational engagement:			
Trading alone	35 (11.8)	155 (52.2)	0.292
Trading plus	26 (8.8)	81 (27.3)	
Marital status:			
Single	21 (7.0)	77 (25.7)	0.934
Married	32 (10.7)	129 (43.0)	
Separated/divorced/widowed	9 (3.0)	32 (10.7)	
Religion:			
Christianity	46 (15.5)$_a$	217 (73.1)$_b$	0.005*
Muslim	11 (3.7)$_a$	15 (5.1)$_b$	

African Traditional Religion	3 (1.0)$_a$	5 (1.7)$_a$	
Average monthly income (NGN):			
Less than 50,000	19 (6.5)	49 (16.7)	0.306
50,000 – 100,000	17 (5.8)	92 (31.4)	
101,000 – 200,000	15 (5.1)	62 (21.2)	
201,000 – 500,000	8 (2.7)	27 (9.2)	
Above 500,000	0	4 (1.4)	

* = significant relationship at p-value < 0.05, a & b = connotations of significant difference between groups of a variables, NGN = Nigerian naira

To further understand the nature of relationship between each significant variable, **comparison of column proportions** was performed only for those significant variables to find out which groups in each of the category differ from each other.

From Table 4 above, it is seen that people with educational exposure who have good knowledge (75.3%) significantly differ from those who have poor knowledge (16.0%), and the same pattern holds for those without educational exposure. Also, people with good knowledge who have never attended school (4.0%) or have up to tertiary (21.0%) or post-graduate (11.7%) level of education significantly differ from the rest of other groups. This is further illustrated in Figure 2 above. With respect to their occupations, only farmers with good knowledge (9.4%) significantly differ from the rest of the groups. The rest of the differing details are illustrated in Table 5 above.

To assess if there is any relationship between the knowledge scores of the participants and their acceptability scores, Pearson correlation and multiple regression were performed, and their relationship equally depicted in the scatterplot diagram in Figure 3 below:

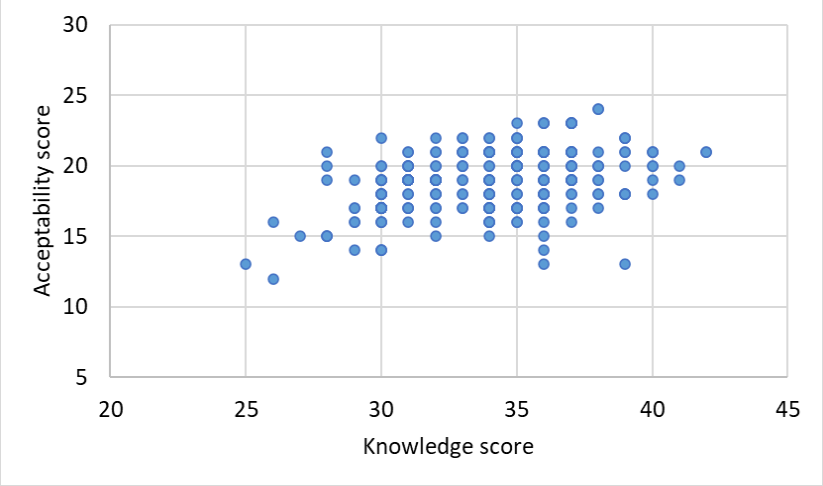

Figure 3. Scatterplot Graph between Acceptability Level and Knowledge Level of the Respondents

The Pearson correlation coefficient between the two variables showed a moderate positive relationship between the two variables with knowledge level explaining about 18.3% significant overall variance in the acceptability level of the respondents (p = 0.000). The system equally generated a regression equation shown below:

$$Acceptability\ score = 9.25 + 0.28\ (knowledge\ score)$$

To further understand the relationship between the knowledge level and acceptability level, Chi-square was performed, and this equally showed a significant relationship as illustrated in Table 5 below.

Table 5. Relationship between Knowledge Level and Acceptability Level of CBHI [N = 300]

Variable		Knowledge Level N (%)		Total	X^2 (P-value)
		Poor	Good		
Acceptability Level N (%)	Poor	50 (16.7)$_a$	75 (25.0)$_b$	125 (41.7)	46.85 (0.000)*
	Good	12 (4.0)$_a$	163 (54.3)$_b$	175 (58.3)	
Total		62 (20.7)	238 (79.3)	300 (100)	

* = significant relationship at p-value < 0.05: a & b = connotations of significant difference between groups of a variables

From Table 6 above, there is a significant relationship between the knowledge level and acceptability level of CBHI scheme among the respondents (p = 0.000). Column proportions test equally showed an internal difference between respondents with good knowledge level (regardless of their acceptability level) and their counterparts with poor knowledge level, this is denoted by the subscripts in Table 5 above.

Table 6. Relationship between Knowledge Level and Service Uptake of CBHI [N = 300]

Variable	Service Uptake N (%)		X^2 P-value
	Enrolees	Non-Enrolees	
Knowledge level:			
Poor	0	62 (20.7)	0.568
Good	6 (2.0)	232 (77.3)	(0.351)
Acceptability level:			
Poor	1 (0.3)	124 (41.3)	0.700
Good	5 (1.7)	1170 (56.7)	(0.406)

Discussion

Knowledge and Awareness Level of CBHI and Factors Affecting Them

More than half of the respondents in this study either agreed (48.3%) or strongly agreed (13.0%) that they have never heard of CBHI schemes. This finding is somewhat similar to the finding in Lagos state, Nigeria, where as much as 80.2% had not heard anything about CBHI schemes [12].

Other variables that have significant relationship with knowledge level in this study include educational exposure, educational level, gender, occupation, and religion (p < 0.05).

Service Uptake Rate of CBHI and Factors Affecting It

Cost and Affordability

Most respondents (78.7%) in this study were neutral about their affordability of CBHI schemes and this is somewhat contradictory to the study where as much as 51.5% cited money as their reason for not enrolling in the CBHI scheme, hence implying that it is costly for them [13].

Also, as seen from Table 7, average monthly income significantly influenced the service uptake rate of respondents in this study whereby higher income earners are more likely to enrol into the scheme. This is equally similar to the study finding where self-reported poor respondents were less likely to enrol in the CHI schemes [14].

Trust

The respondents mostly disagreed (57.7%) or remained neutral (39.7%) when they were asked about their trust level for CBHI schemes, and this can be interpreted as an overall level of distrust. Only one person (0.3%) "strongly agreed" and the rest (2.3%) merely agreed to that statement. Even though a study [15] had highlighted the influence of geographical proximity on increasing trust level amongst

potential CBHI clients, this study reveals that respondents are still somewhat reserved towards the CBHI scheme because of trust issues revolving around their contributions. To further buttress this concern, many respondents still cited trust in their responses when asked to list other things that hinder one from enrolling into CBHI schemes.

Distance

In this study, participants reportedly stated "distance" as another important deciding factor to enrolment into CBHI schemes (Table 3). This was further supported by findings from other reviewed literature including [16] and [17].

Quality of Care

With respect to quality of care, up to 50% of the enrolees interviewed in this study "agreed" that the quality of care from CBHI schemes is discouraging. Only 33% disagreed with this statement and none of them "strongly disagreed" to this item. Although the perception of "quality of care" is largely subjective, respondents from other studies have consistently shown that this is a matter of concern to them before making a decision to enrol into CBHI schemes. This was buttressed by the evaluation study [18] where "quality of care" was repeatedly mentioned or implied up to 383 times from 12 focus group discussions held amongst 137 participants. This further tells the sentiments of healthcare consumers with quality of service. Many of the participants in the reviewed literature cited that they are willing to pay more and access better healthcare elsewhere than enrol in a CBHI scheme which only offer them care at public health institutions. This is because, in Nigeria, it is largely believed that private health institutions offer better health care quality than public health institutions [19].

Knowledge and Acceptability

Some of the reviewed literature interpreted "acceptability" as attitude or perception. From this study, there was no significant relationship between knowledge level and service uptake rate. There was also no relationship between the acceptability level and service uptake rate. This could be explained by the poor proportional distribution of the service uptake reflected by the poor uptake rate of only 2%.

The findings from this study are not similar to the findings from the study in Lagos, Nigeria, where both knowledge level and attitude had significant relationship with service uptake.

Education and Service Uptake

Some literature already gave the possibility of education to influence service uptake rate but that is after certain factors are controlled for such as ethno-religious factors, societal norms, and peer influences. Findings from our study revealed a significant relationship between attained educational level and service uptake rate.

Conclusion and Recommendations for Future Research

Findings from this study also noted that although awareness is poor, a good quota of the participants (79%) still have an overall good knowledge of CBHI schemes. Hence, it will be beneficial to leverage on this concretize more efforts towards encouraging people to enrol with the CBHI schemes. This study reveals that respondents are still somewhat reserved towards the CBHI scheme because of trust issues revolving around their contributions. In this study, participants reportedly stated "distance" as another important deciding factor to enrolment into CBHI schemes.

The research stated that 79.3% of the respondents have good knowledge of CBHI. As shown in the pie chart interpretation of the result out of the 300 administered questionnaires 238 (76%) respondents have good knowledge of CBHI while 62 (21%) of the respondents have poor knowledge of CBHI. An interesting finding from the data after

analysing the acceptability of CBHI among the traders in Akpan Andem Market, Uyo, Akwa Ibom State – Nigeria is that most of the respondents are neutral 275 of them (93.5%) or somewhat pessimistic to the scheme as shown in Table 3 above. Another interesting finding from the study is the respondents' lists of factors that might affect people's decision of taking up CBHI schemes such as trust, distance, and the rest; these are listed under item 8 in Table 3 below. However, the research stipulated poor service uptake rate of 2% showing only 6 out of the interviewed 300 respondents were enrolees with CBHI scheme(s). It was found that educational exposure, educational level, gender, occupation, and religion all significantly contributed to the differences in the knowledge level of the participants. It is also seen that people with educational exposure who have good knowledge (75.3%) significantly differ from those who have poor knowledge (16.0%), and the same pattern holds for those without educational exposure. Also, people with good knowledge who have never attended school (4.0%) or have up to tertiary (21.0%) or post-graduate (11.7%) level of education significantly differ from the rest of other groups.

The research findings detected age, educational level, occupation, occupational engagement, and religion all significantly contributed to the differences in the acceptability level of the participants. These findings are partly due to the poor proportional distribution of participants who are enrolees versus non-enrolees.

Some of the recommendations for future research include Further research can be carried out to understand low level of knowledge among traders and the impact of Government Fiscal policy and regulations of Health Insurance Schemes including provision of counterpart funding. Further research on Government oversight on Regulatory bodies is needed to ensure that regulatory bodies and schemes keep to terms of services within their clients. In similar research in Southern Ethiopia, it also showed a low acceptability and enrollment rate of 12.8% which indicates that many individuals are affected by several factors limiting their enrollment on CBHI scheme [20]. Most of the baseline factors affecting service uptake are general to the health and welfare of citizens. Further, research on Government effort toward meeting the SDG targets for the State and country at large.

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Conflict of Interest Statement

The authors declare that they have no conflicting of interest. All co-authors have seen and agree with the contents of the manuscript and there is no financial interest to report. We certify that the submission is original work and is not under review at any other publication.

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