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WILLINGNESS TO PAY FOR COMMUNITY BASED HEALTH INSURANCE SCHEME AMONG PREGNANT WOMEN IN LAGOS STATE.

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Abstract

The Nigerian population has a predominantly rural populace and over 90% of the population do not have access to the National Health Insurance scheme due to the highly informal nature of the economy. The use of the Community Based Health Insurance Scheme (CBHIS) is vital to health status especially among pregnant women given that the Nigerian economy is the second largest contributor to global under-five and maternal deaths. This paper examined the Willingness to pay (WTP) for the use of the CBHIS and premium amounts WTP in rural parts of Lagos State.

The study made use of the probit model to examine factors that affect the WTP and measures of central tendency to determine the premium charge that pregnant women are WTP for use of the scheme. Data was obtained from a cross section of 350 pregnant women in three different CBHIS centers in Lagos State

Results of the study suggest that income, employment status, household size, marital status and distance to the CBHIS significantly determine the WTP for the use of the CBHIS. Use of the CBHIS would be relatively high when monthly premium is set at N 500. The average amounts that pregnant women are WTP for use of the scheme was about N1,186.40 (US $6.02) per month.

Efforts meant to raise the use of the CBHIS in rural communities by pregnant women, should incorporate strategies that will reduce premium payment below existing rate and create enlightenment of benefits of the scheme particularly for women in self-employment.

Keywords: Willingness to Pay, Community Based Health Insurance Scheme, Probit Model.

Introduction

Financing health-care financing is one of the most challenging problems facing the world's poorest populations especially in developing countries. This is because while over 90% of the global burden of disease is borne by approximately 80% of the world's poor, only about 11% of global health spending is targeted at the poor [1]. In other to mitigate the negative effects of low health care spending on the poor, risk sharing agreements through the use of tax funds, formal insurance schemes and other forms of mandatory and voluntary financing is veritable. Another is the use of direct user fees. While these are important, they are not often easily and effectively implemented in resource poor African countries due to weak institutional arrangements and other deficiencies. Whereas some African countries; Ghana, Burkina Faso and Uganda have been able to institute social health insurance schemes (SHICs) that cover both the formal and informal sectors, many others have not been able to do so [2]. In Nigeria, the National Health Insurance Scheme (NHIS) is associated with formal sector employment which requires regular contributions compatible with formal sector earnings. The scheme does not cover individuals in the informal sector who predominantly live in rural areas. Due to this limitation, the Community Based Health Insurance (CBHI) was advocated as a transitional mechanism to achieving universal coverage for health particularly for rural dwellers [3].

While most studies have examined premium payment source for the CBHIS and factors that influence the WTP for the use of the scheme, the use especially by pregnant women living in the rural areas has received less attention [2, 4-10]. In Nigeria, the role of the CBHIS in accessibility to health care services for pregnant women is paramount due to high maternal and child mortality figures in the country. The country is the second largest contributor to maternal and child deaths. About 14% of the global maternal mortality and 13% of the under-five deaths are related to Nigeria. This figure is quite disproportionate with evidence that the country has approximately 2% of the global population figures [11-14]. This study therefore sought to examine the factors that influence the WTP for the use of the CBHIS by pregnant women in rural communities. Focus in rural areas is further strengthened on the argument that the population is predominantly a rural populace. The study provides estimates of premium amounts which women are WTP for the use of the scheme. Findings of the study will provide insights on measures that can be adopted for enhanced participation and better health outcome from increased health access and use during pregnancy.

Theoretical explanations of individual's behavior towards making choices particularly in contingent valuations are rooted in behavioural theories; planned behaviour and norm activation theory. The Theory of Planned Behaviour (TPB), argues that an individual's intention to perform a behavior is influenced by a combination of behavioural attitudes, beliefs, subjective norms or otherwise opinions of others who play vital roles and perceived behavioural control over an action [15]. Each of these factors is directly determined by the individual's values, emotions, intelligence, age, gender, race, ethnicity, education, income, religion, experience and media exposure. The Norm-Activation theory explains the reasons why altruistic behaviour occurs in some situations and not in others [16]. It alludes altruistic attitudes to factors such as awareness of need, situational responsibility, efficacy and ability [17-18].

Each of these theories is used as benchmark in the analysis of contingent valuations. Most studies elicit people's WTP for healthcare interventions through contingent valuation surveys so that the benefits of those interventions can be valued in monetary terms [19-22]. Contingent valuation studies have mainly adopted the closed ended format in which the respondents are asked whether or not they will be WTP a specified price for a given health insurance package. In this case responses can be categorized as a binary variable assuming the value of one for positive answer and zero otherwise. The open ended format on the other hand is sometimes adopted to elicit information directly for maximum amounts individuals are WTP [7, 23-24]. Several studies have examined the WTP for health insurance as a form of demand for health care. In rural India for instance, individuals WTP for the use of health insurance scheme was examined as a binary response variable. The results showed that insurance/savings schemes especially life insurance as opposed to saving schemes, accounted mainly for rural dwellers WTP for rural health scheme [25].

In a similar study, the CVM was used to compare household heads WTP for CBHIs in Burkina Faso. The average monetary amounts that household heads are WTP for the CBHIs was twice the mean per capita amount they are WTP for the entire household. Older individuals, females, poor persons and those with less education showed lower WTP than those who are young, male, rich and persons with more education. The WTP for CBHIs was between $3.17 and $425 for an individual and $ 8.6 and $13.03 per household in a year [4].

A related study in rural Iran revealed that households are WTP an average of $277 per month for health insurance [5]. In Ethiopia, the mean medical expenses people were WTP for CBHI was

as low as $22.46 per three-month period mainly because of high poverty figures in the country. This suggests that income significantly influences the choice to make use of the CBHIS [9].

Studies have showed that other factors influencing the WTP for CBHIS mainly include age, gender, the level of educational attainment, family size, marital status, geographical location and employment type. In terms of age groups, individuals between 30 and 39 years are argued to have more WTP for the use of the scheme than other age brackets [2]. Studies showed that males, persons with higher educational qualification and families with large household size, are more WTP for use of the scheme than females, individuals with no-formal education and smaller households [7-8, 10]. Higher preference for the scheme is seen among rural dwellers and farmers especially those in self-employment [8, 10].

Overall, empirical evidence provides findings for the WTP for CBHIS in relation to payment mechanism, out of pocket, saving scheme and on the determinants of the use of the scheme. Less attention is given to the WTP for the use of the scheme by pregnant women living in rural communities in Nigeria. The argument for this area of research rests on poor statistics for maternal and child health as well as access to health care facilities in the rural areas. Health care payment which is mainly out of pocket would be less burdensome with the use of less expensive payment mechanism particularly through health insurance. This study hence provides evidence on factors that would affect the WTP for the use of the CBHIS in Nigeria. The CBHIS is a community based insurance programme and hence operates in the rural areas where majority of the Nigerian population resides [26].

Methods

The study was conducted in Lagos State. The state is located in the South west geo-political zone with population density of about 2,607 [27]. It is known as the nerve centre of the country having the largest concentration of industries, financial institutions and major seaports in Nigeria. Overall, there are 20 LGA in Lagos State. Estimate of total population figures in 2016 was approximately 21 million [27-28].

Study population was drawn from communities in Lagos State where the CBHIS is practiced; Awoyaya and Iberekodo mutual health plans in Ibeju-Lekki LGA, Ikosi-Isheri mutual health association in Kosofe LGA and Ajeromi-Ifelodun mutual health association, in Ajeromi-Ifelodun LGA. Two of the selected CBHIS centres; Ikosi-Isheri and Ajeromi-Ifelodun are located in the mainland metropolis and the other two; Awoyaya and Iberekodo mutual health plans, are on the island. Using the 2006 census figures, total population in each LGA are 117,793 (males: 60,729, females: 57,064) in Ibeju-Lekki, 682,772 (males: 358,935, females: 323,837) in Kosofe and 687,316 (males: 352,273, females: 335,043) in Ajeromi-Ifelodun [27]. Due to difficulty in obtaining population figures for the selected communities, the sample size was drawn based on the female population for each local government. Female population figures are selected in line with study interest on the WTP for CBHIS among pregnant women. A minimum sample size (n) = 300 (rounded up to 350) was obtained using the formula $n = \frac{Z^2 * P * q}{d^2}$; where, $q = 1 - p$, $z = 1.645$, (at 90% confidence interval) and margin error d of 0.03. Using population proportion p= 0.001, 0.004 and 0.005 for Ibeju Lekki, Kosofe and Ajeromi-ifelodum LGA respectively, minimum samples were consecutively 30, 120 and 150. The conventional 5% value for P was not used because of the large sample size it generates given available population data [29-30]. Choice of population proportion chosen was based on percentage values of female population in each LGA relative to total female population in the three LGAs. The sample size of 300 was rounded up to 350 following selected female population proportion values in each LGA. Samples from the LGA's were 54, 129 and 167 for Ibeju Lekki, Kosofe and Ajeromi-ifelodum LGA respectively.

The CBHIS requires payment of a premium of N1, 200 per household. This covers a maximum of six household members; father, mother, and four children. Premium payment is N 600 for single individuals. Each enrollee is made to pay N 50 consultation fees per visit to control for demand side moral hazard. Users of the scheme are required to pay premium charge not later than the seventh day of the month otherwise, penalty fee of additional 20 per cent premium is required.

A structured pretested questionnaire was used for data collection. The questionnaire was pretested on 30 randomly selected households in each LGA using the selected P values. The questionnaire assessed the social economic characteristics of respondents and the WTP for use of the CBHIS. A total of 350 pretested questionnaires were administered randomly. Assessment of WTP was based on the close ended question format. Respondents were asked to state whether they are WTP the prevailing amount as premium charge for use of the CBHIS. To determine average amounts WTP per month, respondents were required to tick within a range of value from N 500 to N 3,000. The selected range is meant to capture distribution of persons WTP below the required charge of N 600 for single individuals and those who can afford payment beyond the existing charge of N 1,200.

Only pregnant women in the adult population who are permanent residents in the community were considered. The simple random sampling technique was used to select

the required number of women. Questionnaires were randomly administered on the day of antenatal visit to the health centre. The interviewer occasionally interpreted the questions to the respondents in the local dialect (which is Yoruba). Information from field survey was coded using Statistical Package for Social Sciences (SPSS) version 20.0, and estimations were carried out using STATA 13.

The theoretical framework of the study is premised on the theory of planned behaviour. In line with the supposition of the theory, the WTP for CBHIS was modelled as a function of behavioural attitude, subjective norm and perceived behavioural control of the individual. These variables are measured using trust, membership and income respectively [15]. Other covariates are also considered in the study. The model specification for WTP for an individual i is given as:

$$WTP_i = f(T_i, MA_i, INC_i, OS_i) \quad 1$$

Where, T = Trust;

MA = Membership Association; INC = Income and OS = Other covariates.

Other covariates considered in the model include; employment type, household size, age, husband's educational attainment, marital status, religion, household size and distance to the CHBIS from place of residence.

For the purpose of estimation, the model specification used in this study is given as

$$WTP_i = \beta_0 T_i + \beta_2 Am_i + \beta_3 Inc_i + \beta_4 Emp_i + \beta_5 Hs_i + \beta_6 Rel_i + \beta_7 Age_i + \beta_8 Educ_i + + \beta_9 Ms_i + \beta_{10} Dis_i + \in_t \quad 2$$

The variables are measured in categorical forms. Where, WTP_i; the willingness to pay for CBHIs, T_i; Trust in governments program, Am_i; Association membership, Inc_i: Income, Emp_i. Nature of employment, Hs_i: Household size, Rel_i: Religion, Age, $Educ$; Level of Education attainment, Ms_i: Marital status. Dis_i: distance to CBHI centre in meters and $\in_i$ is the error term. Equation 2 is analyzed as a probit model which lends itself naturally to the use of the maximum likelihood estimation. The probit model is one of the three existing approaches considered in the analysis of a binary choice dependent variable. Other methods include the logit and the Linear Probability Model (LPM), [31]. Unlike the LPM, the probit and logit model guarantee that the probability of an event occurring will yield results that lie between zero and one. Choice of the probit over the logit and vice versa is subjective and depends on the assumed distribution of the data [31].

The study examined premium paid (P) for CBHIs as:

$$P = \frac{\sum fx}{\sum f} \quad 3$$

Where f represents total number of individuals who are WTP for the use of CBHIS and x indicates the total amount individuals are WTP for the use of the scheme.

Results

Responses were received from all the 350 questionnaires administered. Results for summary statistics of the variables used in the study, factors affecting the WTP and the premium amounts pregnant women are WTP are presented in tables 1, 2 and 3 respectively. We also show some post estimation analysis for model specification; checking for collinearity. Variables used in the study are basically categorical with mean values from summary statistics showing the percentage composition of each variable.

Table 1: Summary Statistics of Variables

Variable	Observation	Mean	Standard Deviation	Min	Max
WTP (Persons willing to pay)	348.000	0.655	0.476	0.000	1.000
Trust (Persons who trust in the effectiveness of the CBHIS)	141.000	0.397	0.491	0.000	1.000
Association Membership (Yes)	340.000	0.615	0.487	0.000	1.000
Income less than N5,000	315.000	0.235	0.425	0.000	1.000
Income N5001-9,999	315.000	0.200	0.401	0.000	1.000
Income N10,000-24,000	315.000	0.257	0.438	0.000	1.000
Income above N24,000	315.000	0.308	0.462	0.000	1.000
Unemployed	349.000	0.258	0.438	0.000	1.000
Self-employed	349.000	0.593	0.492	0.000	1.000
Wage employment	349.000	0.149	0.357	0.000	1.000
Household size less than 2	343.000	0.120	0.325	0.000	1.000
Household size 2_5	343.000	0.542	0.499	0.000	1.000
Household size 6_9	343.000	0.321	0.467	0.000	1.000
Household size 10 and above	343.000	0.017	0.131	0.000	1.000
Religion Christian	344.000	0.625	0.485	0.000	1.000
Religion Muslim	344.000	0.375	0.485	0.000	1.000
Age in years (13-35)	347.000	0.608	0.489	0.000	1.000
Age in years (36-46)	347.000	0.337	0.473	0.000	1.000
Age in years (above 46)	347.000	0.055	0.228	0.000	1.000
No Formal education	350.000	0.229	0.421	0.000	1.000
Primary education	350.000	0.149	0.356	0.000	1.000
Secondary education	350.000	0.234	0.424	0.000	1.000
Tertiary education	350.000	0.389	0.488	0.000	1.000
Married Monogamous	343.000	0.560	0.497	0.000	1.000
Marred Polygamous	343.000	0.254	0.436	0.000	1.000
Married loose union	343.000	0.044	0.205	0.000	1.000
Single	343.000	0.143	0.350	0.000	1.000
Distance less than 100 meters	252.000	0.294	0.456	0.000	1.000
Distance 101- 400 meters	252.000	0.202	0.403	0.000	1.000
Distance 401-999 meters	252.000	0.226	0.419	0.000	1.000
Distance above 1,000 meters	252.000	0.278	0.449	0.000	1.000

Source: Author's computation.

There are more pregnant women (65%) who are WTP for the use of the CBHIS than those who are not. Approximately 40% of the study sample have some trust in the CBHIS scheme and most of them (62%) are members of a thrift society. Individuals who earn above N 24, 000 per month are relatively more in the study sample (31%) compared to other income groups and are mainly engaged in self-employment work type. Most of the women are from households with 2 to 5 persons (54%). Age distribution reflects 13 to 35 years for most persons in the study. Figures for educational distribution reveal that there are more women with no formal education (23%) than those with primary education (15%). Those with secondary and tertiary education are about 23% and 39% respectively. Most respondents in the study are from a monogamous family (56%). Approximately 29% of respondents reside less than 100 meters away from the location of the CBHIS.

Table 2 presents the probit regression estimates of the WTP for use of the CBHIS. As shown in the table, the model consisted of 5 variables that were significantly associated with the WTP for use of the CBHIS. The most determining factor of the WTP for CBHIS was household size. The WTP for use of the scheme dropped with increase in household size. Individuals who are from households with less than two persons had highest WTP with approximately 99% likelihood compared to those from households with 10 and above number of persons.

Table 2: Distribution of Per Capita Health Expenditure by Region by Financing Agents ($)

Variable	Estimates
Trust: No trust is the reference category	
Trust (Persons who trust in the effectiveness of the CBHIS scheme)	-0.03(0.037)
Association membership: Non membership as reference category	
Association Membership	-0.004(0.035)
Income: Above N24,000 is the reference category	
Income less than N5,000	0.504(0.254)*
Income N5000-9,999	0.93(0.131)***
Income N10,000-24,000	0.507(0.333)**
Employment: Wage employment is the reference category	
Unemployed	-0.147(0.088)*
Self-employed	-0.414(0.213)**
Household size: Reference category 10 and above number of persons	
Household size less than 2	0.99(0.001)***
Household size 2_5	0.939(0.058)***
Household size 6_9	0.801(0.186)***
Religion: Reference category Islam	
Religion Christian	-0.006(0.045)
Age in years: Reference category above 46 years	
Age in years (13-35)	-0.128(0.123)
Age in years (36-46)	-0.078(0.075)
Education: Reference category Tertiary education	
No Formal education	-0.065(0.052)
Primary education	-0.052(0.033)
Secondary education	-0.052(0.034)
Marital Status: Reference category single	
Married Monogamous	0.106(0.083)*
Marred Polygamous	0.223(0.19)*
Married loose union	0.484(0.388)*
Distance from home to CBHIS :Reference 1,000 meters and above	
Distance less than 100 meters	-0.129(0.07)*
Distance 101- 400 meters	0.05(0.066)
Distance 401-999 meters	0.108(0.059)
Diagnostics	
LR chi2(19) = 33.950 Prob >chi2=0.019	
Psuedo R2 0.348	
Observation 119	
Model specification	
Collinearity test Mean variance inflation factor(Mean VIF)=5.24	

*Source: Author's computation Notes: 1: Marginal effects of coefficients are reported with standard error values in brackets. 2: *, ** and *** indicate statistical significance at 10%, 5% and 1% levels, respectively*

Income was also a significant determinant of the WTP for use of the CBHIS. Pregnant women receiving income between N5, 000 and N9, 9000 are relatively more likely to pay for use of the CBHIS. Such women have approximately 93% likelihood of paying for the use of the CBHIS compared to those

earning above N24, 000. Marital status was also a significant factor influencing the WTP for CBHIS. Women who are married; monogamous, polygamous or loose union are more WTP for use of the CBHIS than single women. Those in a loose union show highest WTP for use of the CBHIS among the various grouping of marital status. They are about 48% more likely to pay for use of the CBHIS relative to those who are single. The employment status of the pregnant woman was also a significant determinant of the WTP for the use of the CBHIS. Women who are in self-employment had relatively highest less likelihood of the WTP. Those in self-employment are about 41% less likely to pay for use of the CBHIS relative to those in wage employment. Unemployed women are about 15% less likely to pay for use of the scheme. Distance from place of residence to the CBHIS also significantly affected the WTP, especially for women who reside very close to the centre. Pregnant women who live less than 100m away from the location of the CBHIS showed approximately 13% less likelihood of paying for use of the scheme. The likelihood test statistics show overall model fit with significant probability values at 5% and the [1]VIF value of 5.24 annuls concerns for the problem of multicollinearity as it is less than the threshold value of 10 [31]. The results for premium amounts pregnant women are WTP for the use of the CBHIS are shown in Table 3.

Table 3: Premium amounts WTP for CBHIs

Amounts WTP monthly to benefit from the CBHIS in ₦	Average ₦ (X)	Frequency (F)	Percentage	Total of amounts WTP (FX)
at the rate of 500	500	107.00	46.93	53500
600-2000	1,300	75.00	32.89	97500
2001-3000	2,500	37.00	16.23	92500
above 3000	3,000	9.00	3.95	27000
Total	7,300	228	100	270500

Average estimates willing to pay = $\frac{(\sum fx)}{(\sum f)} = \frac{(270,500)}{228} =$ ₦1,186.40. With [2]dollar exchange value of N197/ US $ Average amount WTP= US $6.02

Increase in premium rates was accompanied by a decrease in the percentage of women WTP for use of the scheme. Given the premium rates, there are relatively more women (about 47%) WTP N 500. Approximately 33% of the women are WTP between N 600 and N 2,000. About 16% are WTP between N 2001 to N 3,000 and only approximately 3% of the women are WTP above N 3, 000. On the average, premium amounts WTP was N1, 186.40 (US $6.02).

Discussions

The study identified factors that affect the WTP for use of the CBHIS and premium amounts WTP for use of the scheme among pregnant women. Findings on determining factors and premium amounts WTP will provide a platform for planning and effective use of the CBHIS especially among pregnant women.

Summary Statistics of Variables

Table 1 showed that majority of the respondents are WTP for the use of the scheme. This implies that most pregnant women in the study area are willing to use the CBHIS even at the prevailing premium rate. Majority of the respondents are in a thrift society and this could aid their ability to save for use of the scheme. This is corroborated by results for income with most of the women (about 69%) earning N24, 000 and below and are also mainly engaged in self-employment work type. A reasonable proportion of the women are from households within the maximum number of persons required by the CBHIS for a one-time monthly premium payment. About 66% of the women are from households with less than 6 persons. This can also be the reason for their WTP for use of the CBHIS. Age distribution was between 13 to 35 years for most persons in the study. This age group basically comprise the reproductive years of the woman and shows adequate capture of the required sample group. Majority of the women (61%) do not have more than secondary education and this explains their engagement mainly in self-employment. Most of the women in the study sample (about 86%) are married and hence can get some form of reservation income which could encourage

[1] The variance inflation factor was determined from OLS estimation. The interest was to get the VIF not parameter estimate. VIF does not run in the probit model used for the analysis.

[2] Exchange rate value of N197/US $ was obtained from second quarter exchange rate figures of the Central Bank of Nigeria, quarterly statistical bulletin. Figures for second quarter were used to match the period for which the survey was conducted [32].

use of the scheme. Most women reside above 100 meres away from the location of the CBHIS and yet are WTP for use of the scheme. This implies that challenges with distance does not deter use of the CBHIS in the study area.

Determinants of the WTP for use of the CBHIS

From the probit regression results, variables that significantly influences the WTP for use of the CBHIS include; income, employment status, household size, marital status and distance from respondent's home to the location of the CBHIS. This corroborates findings by earlier studies in Nigeria and Cameron [7-8, 10]. Results for income suggests that individuals who earn below N 24, 000 are more WTP for the use of the CBHIS than those who earn above this amount. This implies higher patronage of the CBHIS by persons who are low income earners. Given that persons in the low income bracket are more likely to make use of the scheme, efforts should be geared towards introduction of strategies to cut premium charges. Tactic actions such as contributions from the local government to subsidize premium and financial support from civil society groups and philanthropists can alleviate the burden of payment. Results for employment status reveals less WTP for the scheme for women who are unemployed and self-employed relative to persons in wage employment. This is an indication that women who are unemployed have difficulties with raising income for payment. Women in self-employment are likely among the uneducated and hence can undermine benefits of the CBHIS. Efforts to increase the use of the scheme should involve information dissemination of benefits of the CBHIS. There are positive relationships between the WTP and household size with individuals from smaller households shown to have a higher probability for use of the scheme than those from larger households. Individuals from larger households are likely to incur additional charges per visit levied to check demand side moral hazard and this possibly reduces the desire to make use of the scheme. Women who are married whether monogamous, polygamous or loose union, are shown to have a higher WTP relative to single women. This finding draws from possible case of reservation income for women who are married and thus raises tendency to participate in the scheme. Efforts to promote use among single expectant mothers can be achieved through setting low and affordable premium. Results for distance gave shocking findings with evidence that those who reside less than 100 meters away from the CBHIS centre have a lower likelihood of participating in the scheme relative to those who live 1,000 meters away from the centre. Though it is possible that those who live closer to the CBHIS undermine the value and benefits of the center, there is the need to further explore factors that can influence the use of the CBHIS in strata of residential distance from location of the center.

Monthly Premium Amounts WTP for Use of the CBHIS

From the results, the WTP falls with increase in premium charge. Almost half of the women would prefer that premium charge is set at the rate of N 500 per household. On the average, amounts WTP as premium charge N1, 186.40 (US $6.02) was lower than existing charge of N 1, 200 (US $6.09). Efforts to encourage use of the CBHIS should therefore focus on reduction of premium from existing rate.

Conclusion

Results of the study suggest that income, employment status, household size, marital status and distance to the CBHIS significantly determine the WTP for the use of the scheme. Low income earners are more likely to participants in the scheme than those with higher income. Participants in the scheme are mainly those in wage employment. WTP for the use of the scheme has positive relationship with household size but however drops in magnitude with increase in family size. Single women are the most unlikely set to participate in the scheme as well as those who reside less than 100 meters to the location of the CBHIS. On the average monthly premium charges to encourage use of the scheme should not exceed approximate amounts of N 1, 186.40 (US $6.02).

Overall, efforts to boost use of the scheme in rural communities, should be encouraged in rural communities and premium charges should be low for better use of the CBHIS.

One limitation of this study is that it was gender biased. The study did not provide findings for men and not all women were covered. Another limitation encountered during this research was the inability to obtain population values for each of the selected community used for the study. Hence, figures for local government estimates were used.

Contribution of Authors

All authors contributed to the conceptualization and design of the study. O.A oversaw the data collection, analysis, interpretation of the results and review of manuscript, O.L critically reviewed the manuscript upon subsequent reviewers' report. O.R. was primarily responsible for the collection of data, analysis, and drafting of the manuscript. All authors reviewed the draft and approved the final manuscript.

Competing Interest

The authors declare that they have no competing interests.

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