Willingness to pay for community health insurance in a semi-urban community in Delta State, Nigeria

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Abstract

Background: Community health insurance is now seen as a very viable and sustainable pre-payment scheme for individuals in the informal sector, especially those living in rural and semi-urban communities in sub-Saharan Africa. This study was conducted to assess the willingness of household heads' to pay premium for community health insurance in a semi-urban community.
Methods: This was a descriptive cross-sectional study conducted among 436 household heads in Oghara community using a semi-structured interviewer administered questionnaire for data collection.
Results: About a third (31.0 %) of the respondents were in the age group 30-39 years while 24.0 %, 22.0 %, 15.0 % and 8.0 % of them were in the age groups 20-29, 40-49, 50-59; and 60 and above years respectively. Slightly above half (53.0 %) of the respondents were females while 47.0 % of them were males. About three quarter (72.7 %) of the respondents were willing to pay premium and the mean amount of money they were willing to pay as premium was N 514.59 (US Dollar 3.22) monthly. Sex, educational status, monthly income and past health expenditure for health care were factors found to influence the mean amount the respondents were willing to pay as premium.
Conclusion: This study brings to the fore a high level willingness to pay premium for community health among household heads. It is therefore imperative that financing arrangements through community health insurance be incrementally scaled-up as a key strategy to achieving sustainable universal health coverage.

Keywords: Willingness to pay, community health insurance, premium

Highland Med Res J 2015;15(2):83-87

Introduction:
In Nigeria, the health sector suffers from the lack of financial and human resources.[1] Despite this constrain on the sector's resources, the demand for health services continues to increase in the country. It is of concern that the country's health sector; a foremost service sector is perennially underfunded by the government.[2,3] Evidence reveals that the sector continues to fail in meeting the burgeoning user needs and demands.[4] The World Health Organization (WHO) in the year 2000, placed Nigeria at a dismal 187th position out of 191 United Nations member States in health systems performance.[5] Sadly, since the year 2000, these unsalutary finding still reflects in key health indices such as maternal mortality ratio (MMR) and infant mortality rates (IMR). Current estimates in Nigeria reveals that the MMR is as high as 575 deaths per 100,000 live births and the IMR is as high as 69 deaths per 1,000 live births. [6-9] It has been progressively difficult to sustain satisfactory levels of financing healthcare in Nigeria, as out-of-pocket spending (OOPS) remains the major mechanism for payment for health services.[10] This is in contrast to what prevails in high income countries where various arrangements have been made for pre-payment and health insurance.[11] Evidence reveals that OOPS is 'catastrophic' in the sense that it could worsen access to healthcare and cause poverty by crowding-out important goods such as clothes, food and housing.[12-14] In order to achieve sustainable universal health coverage, the WHO in its World Health Assembly (WHA 58.33) in 2005 recommended that member states should be urged to adopt a method for pre-payment for healthcare in order to share risk among the population and avoid catastrophic health-care expenditure. [15]Against the background of increasing demand for healthcare delivery and the recalcitrant burden of diseases, the Nigerian government through its health financing policy provided a framework for establishing pre-payment schemes within the context of the National Health Insurance Scheme (NHIS).[16] This was with a view to expand coverage in health care delivery for the formal and informal sectors as a strategy towards universal access to healthcare.[17,18] As a result, various health insurance schemes now exist in the country. Of such include the community health insurance schemes. However, it is important to note that health insurance, as a financing mechanism, remains largely restricted to

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about four percent of the Nigerian populace who for the most part are employees in the formal sector.[13] Notwithstanding, these financing schemes are set-up to mobilize resources for healthcare and at the same time provide financial risk protection.[12,13] There are reports that insurance have had positive impacts on healthcare financing and healthcare outcomes, by improving access to services and reducing OOPS for health services.[19,20] Accordingly, the ongoing reforms of Nigeria's healthcare financing system necessitates periodic monitoring and evaluation to ensure that it achieves the objectives of sustainable health financing and universal health coverage. This study was conducted to assess the willingness of would-be enrolees to pay premium for community health insurance in a semi-urban community in Delta State, Nigeria. Consequently, it is hoped that the findings from this study should inform health policy makers and constitute an important part of the basis on which decisions on healthcare financing can be taken in the country and beyond.

Materials and Methods

This was a descriptive cross-sectional study conducted in September 2013 among heads of households in Oghara, a semi-urban town in Ethiope West Local Government Area of Delta State, south-south Nigeria. A minimum sample size of 450 was obtained using the Fischer's formula[21] and a multistage sampling technique was used to select the study population. In the first stage, a simple random sampling technique was used to select one clan (Ogharefe) out of the two clans in Oghara. In the second stage, a simple random sampling technique was used to select three settlements out of the five settlements in Ogharefe. A systematic sampling technique was used in the third stage to select households from which the study population was recruited. All heads of households in the study area who gave verbal informed consent were included in this study while those who did not were excluded. The study instrument was a pre-tested semi-structured interviewer administered questionnaire which elicited information on the socio-demographic and socio-economic characteristics of the study population, their knowledge of community health insurance and their willingness to pay premium. The data collected was sorted out and entered into the spread sheet of the Statistical Package for Scientific Solution (SPSS) version 16. Statistical analyses carried out included simple frequency tables, chi-square analysis for association of variables, t-test analysis for difference of two means and F-test analysis for difference of more than two means. Statistical significance was set at $P < 0.05$.

Ethical approval for this study was obtained from the Health Ethics and Research Committee of the Delta State University Teaching Hospital, Oghara. All subjects gave informed consent.

Results

Of the 450 respondents recruited, only 436 heads of households responded to all the questions in the study instrument.

Table 1: Socio-demographic characteristics of the respondents

Characteristics	Frequency (n = 436)	Percentage
Sex		
Male	205	47
Female	231	53
Age group		
20-29	105	24
30-39	135	31
40-49	96	22
50-59	65	15
≥ 60	35	8
Occupation		
Artisans/Technicians	129	29.6
Civil servants	48	11.0
Traders	129	29.6
Farmers	71	16.3
Unemployed	59	13.5
Monthly income		
Less than N 5,000.00	121	27.8
N 5,000.00 – N 10,000.00	141	32.3
N 10,001.00 – N 20,000.00	64	14.7
Greater than N 20,000.00	110	25.2

Table 2: Awareness, source of information and amount willing to pay for community based health insurance by respondents

Variables	Number studied	Frequency	%
Aware of community based health insurance			
Yes	436	106	24.3
No	436	330	75.7
Source of information			
Mass media	106	57	53.8
Family and friends	106	32	30.2
Community meeting	106	11	10.3
Health care providers	106	6	5.7
Willing to pay for community health insurance			
Yes	436	317	72.7
No	436	119	27.3
Amount willing to pay			
Less than N 250.00	317	71	22.4
N 250.00 – N500.00	317	128	40.4
N 501.00 – N750.00	317	31	9.8
N 751.00 – N 1000.00	317	44	13.8
Greater than N 1000.00	317	43	13.6
Mean amount willing to pay:	N 514.59 (US Dollar 3.22)		

Table 3: Mean amount willing to pay for premium in relation to the socio-demographic and socio-economic characteristics of the study respondents

Socio-demographic and socio-economic characteristics	Mean amount willing to pay as premium monthly	Mean amount willing to pay as premium annually.
Age groups (years)		
20 - 29	N 550.00 (US Dollar 3.44)	N 6,600.00 (US Dollar 41.28)
30 - 39	N 523.44 (US Dollar 3.27)	N 6,281.28 (US Dollar 39.24)
40 - 49	N 596.77 (US Dollar 3.73)	N 7,161.24 (US Dollar 44.76)
50 - 59	N 443.63 (US Dollar 2.77)	N 5,323.56 (US Dollar 33.24)
60 and above	N 383.62 (US Dollar 2.40)	N 4,603.44 (US Dollar 28.8)
	F-test value= 2.062; P= 0.086	
Sex		
Male	N 562.10 (US Dollar 3.51)	N 6,745.20 (US Dollar 42.12)
Female	N 491.99 (US Dollar 3.10)	N 5,903.88 (US Dollar 37.20)
	test value= 12.993; P= 0.0001	
Educational status		
Nil formal	N 478.45 (US Dollar 2.99)	N 5741.40 (US Dollar 35.88)
Primary	N 436.40 (US Dollar 2.73)	N 5,236.80 (US Dollar 32.73)
Secondary	N 530.96 (US Dollar 3.32)	N 6,371.52 (US Dollar 39.82)
Tertiary	N 665.32 (US Dollar 4.16)	N 7,983.84 (US Dollar 49.92)
	F-test value= 25.000; P= 0.013	
Monthly income		
Less than N5,000.00	N 393.12 (US Dollar 2.46)	N 4,717.44 (US Dollar 29.48)
5,000.00 - 10,000.00	N 421.39 (US Dollar 2.63)	N 5,056.68 (US Dollar 31.60)
10,001.00-20,000.00	N 648.44 (US Dollar 4.05)	N 7,781.28 (US Dollar 48.60)
Greater than 20,000.00	N 7 10.37 (US Dollar 4.44)	N 8,776.44 (US Dollar 53.28)
	F-test value= 13.648; P= 0.0001	
Payment for health services two weeks prior to the study		
Yes	N 491.80 (US Dollar 3.07)	N 5,901.60 (US Dollar 36.89)
No	N 535.99 (US Dollar 3.35)	N 6,431.88 (US Dollar 40.20)
	t-test value= 12.189; P= 0.0001	

The socio-demographic characteristics of the respondents are shown in Table 1. The respondents in the age group 30-39 years constituted 31.0 % of the study population, while those of them in the age groups 20-29, 40-49, 50-59; and 60 and above years, constituted 24.0 %, 22.0 %, 15.0 % and 8.0 % of the study population respectively. Slightly above half (53.0 %) of the respondents were females, while 47.0 % of them were males. Slightly below a third (29.6) of the respondents were artisans and traders respectively, while 13.5 % of them were unemployed. About a third (32.3 %) of the respondents earned between N 5,000.00 – N10, 000.00 monthly, while 25.2 % of them earned above N 20,000.00 monthly.

The awareness, source of information and amount willing to pay for community-based health insurance by respondents are shown in Table 2. Less than a third (24.3 %) of the respondents were aware about community health insurance, while 75.7 % of them were unaware of the scheme. Despite the low level of awareness about community health insurance among the respondents, 72.7 %of them were willing to pay premium if they had the opportunity to enrol, while 27.3 % were unwilling to pay premium. The mean amount of money the respondents were willing to pay as premium was N 514.59 (US Dollar 3.22) monthly.

The mean amount of money the respondents were willing to pay for premium in relation to their socio-demographic and socio-economic characteristics are shown in Table 3. Factors found to influence the mean amount the respondents were willing to pay as premium in this study were sex (t= 12.993; p=0.0001), educational status (F= 25.000; p= 0.013), monthly income (F= 13.648; P= 0.0001) and past health expenditure for health care services (t= 12.189; P= 0.0001).

Discussion

Most functional health insurance schemes in Africa are associated with formal sector employment which requires regular contributions compatible with formal sector earning. Such schemes do not cover individuals in the informal sector that predominantly live in rural and semi-urban areas. Community health insurance is now seen as a very viable and sustainable pre-payment scheme for individuals in the informal sector, especially those living in rural and semi-urban communities in sub-Saharan Africa.[22,23]Against this background, the health financing policy in Nigeria now provides a framework for establishing community health insurance schemes so as to expand coverage in health care delivery for the formal and informal sectors as a strategy towards universal access to healthcare. [22,23]

The study revealed that in spite of the low level of awareness about community health insurance, most of the respondents were willing to pay premium if such scheme was made available for them to enrol. There is evidence suggesting that awareness and perception could be a hindrance to enrolling in such schemes.[24]The hindrance to enrolment tends to be higher in situations where there is a low level of awareness and high level of negative perception about community health insurance. However, the finding from this study revealed that despite the low level of awareness, there was a high level of willingness to pay for premium. It could be implied that, although awareness may be low, the growing knowledge of health insurance in Nigeria has come with positive perception towards such a scheme. Furthermore, it could also be implied that besides the current advocacy for improving healthcare financing through health insurance, the rising 'tide' of information technology have also contributed significantly to the right perception and attitude towards health insurance programmes in the country. There is evidence from other studies which corroborate this assertions.[25,26]

In addition, findings from this study revealed that

socio-demographic and socio-economic factors such as sex, educational status, monthly income and past health expenditure for health care services influenced the mean amount of money the respondents were willing to pay as premium if the scheme was available for them to enrol. This study revealed that the mean amount of money the male respondents were willing to pay was higher than the mean amount of money the female respondents were willing to pay. This observation is in agreement with findings from previous studies in two different communities in Nigeria and in Ghana which revealed that male household heads were willing to pay higher amounts for health insurance than female household heads.[27,28]Closely related to these finding is the observation from a study in Namibia where thirty-one percent of individuals who live in male-headed households were insured compared with twenty-one percent of individuals living in female-headed households.[19] This observation is however at variance with the finding of a study in Nigeria which reported that the mean amount of money female household heads were willing to pay was higher than the mean amount of money male household heads were willing to pay for premium.[29]

This study also revealed that the higher the educational attainment and monthly income of the respondents, the higher the mean amount of money they were willing to pay as premium. This observation is also consistent with findings from previous studies which reported that people with higher educational attainment and income status were more willing to pay higher premium for community health insurance.[27,29]

Conclusion

This study brings to the fore a high level of willingness to pay premium for community health insurance among household heads. It is therefore imperative that financing arrangements through community health insurance be incrementally scaled-up as a key strategy to achieving sustainable universal health coverage.

Acknowledgments: The authors are grateful to the participants.

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