COMMUNITY-BASED HEALTH INSURANCE SCHEME IN A RURAL COMMUNITY OF NORTH WEST NIGERIA: A ROADMAP TO ACHIEVING UNIVERSAL HEALTH COVERAGE.

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ABSTRACT

Background: Community Based Health Insurance (CBHI) scheme is aimed at reducing out of pocket spending on health care services, ensuring final risk protection to all, especially the poor and the most vulnerable, improvement of quality of health care services, access and utilization as well as the promotion of equity. **Objective**: This research was aimed at determining willingness to participate in a community-based health insurance scheme among rural households in Katsina State. **Method**: A cross-sectional descriptive study was conducted in December 2016 among households of Batagarawa LGA, Katsina State. We used a pre-tested, electronic, semi-structured interviewer-administered questionnaire to obtain data from households that were selected using a multistage sampling technique and we analyzed the data using STATA version 13. **Results**: Most, (28.5%) of the respondents were in the age range of 30-39 years with a mean age of 35.5 years. Males were the dominant household heads (93%). Most were married (90%). Most, (90.5%) of households were willing to pay for a community-based health insurance scheme with a median premium of 100 Naira per household member per month. **Conclusions**: The high proportion of households willing to pay for the scheme should inform the decision of policy makers to design and maintain Community Based Health Insurance Scheme to improve access to and utilization of quality health care services.

Keywords: Community, Insurance, Nigeria, Northwest, Premium, Rural, Scheme Willingness-to-pay

INTRODUCTION

Health is a fundamental human right[1]. This is contained in article 25 of the Universal Declaration of Human Rights of 1948. This declaration stressed and strengthened the need for universal health coverage (UHC).[1] WHO defined universal health coverage as "access to key promotive, preventive, curative and rehabilitative health interventions for all at an affordable cost, thereby achieving equity in access".[1] Health care services are very expensive and therefore require robust financing. For any country according to WHO, the health financing system should be structured to provide all citizens access to quality and affordable health care services and at the same time ensuring that the cost of paying for the services does not lead the user into financial hardship[1]. Health care financing is the mechanism through which health services are paid for. The various options to finance health services are either from government allocations derived from revenues, grants obtained from a charity organization, or via direct out-of-pocket (OOP) spending on health or via social insurance.[2]

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The predominance of out-of-pocket spending on health at the point of service makes it difficult for poor individuals to access quality health care services.[2] This often serves as a barrier to utilization of orthodox services and often necessitates high patronage of traditional medicine by the poor. It has been observed that such households resort to orthodox health care centres only when the condition of illness has deteriorated to an intolerable level. Consequently, this further increases the real cost of treatment because poor households may not be able to access health care services as their level of income is low and they are even more prone to diseases.[2] A viable solution to this problem is CBHI. However, for CBHI to succeed, people must be willing to pay for it. Without the willingness to pay there exists a high dropout rate among the participants of CBHI.[3] On the other hand, willingness to pay into CBHI is extremely very low as people were unwilling to pay due to non-usefulness of previous insurance schemes and lack of trust in investing financial resources in such schemes as well as the claim that these schemes are not pro-poor.[4] Studies have shown that poor people were willing to pay a fraction of their premium provided that government will supplement the remaining part of the premium.[5] Studies conducted in Ethiopia to ascertain WTP for CBHI revealed that only 39.7% of all respondents were willing to pay for CBHIS, 27.7% still prefer out-of-pocket spending and 19% will only join if it becomes a compulsory scheme.[6] In Kenya, major barriers to joining informal insurance scheme were in-ability to pay, poor quality of health care services by the scheme and lack of credibility and trust in fund managers for the scheme were.[7] In a study conducted in the rural community of Anambra state, on the basis for effective community based health insurance schemes, it was found that beneficiaries of an existing CBHI scheme were contributing a premium of 500 Naira per person per month.[8] In some communities in the same study, people were willing to pay a premium range of 250 Naira to 343 Naira. On the overall, less than 40% of the respondents were willing to pay for community-based health insurance scheme.[8]

This study, therefore, was aimed determining the proportion of households willing to pay for community-based health insurance scheme as well as the average premium each household is ready to pay for the scheme in Batagarawa LGA of Katsina State.

MATERIALS AND METHOD

Study Design and Area

This study was a cross-sectional descriptive study conducted in Batagarawa LGA of Katsina state. Two district heads exist at Batagarawa and Ajiwa.[9] It is predominated by farmers and civil servants as major occupational groups and Islam as the major religion. Most of the people in the area are Hausas. It is comprised of 10 political wards, 492 settlements. It has an estimated population of 248053 with 49,611 estimated under-fives, 9,922 under one, estimated 54,572 Women of Reproductive Age. It shares borders with 6 LGAs, namely Katsina, Kaita, Jibia, Batasari, Kurfi, Rimi and Charanchi. At present no facility offers any form of health insurance in the local government area. Besides, no existing community-based health insurance scheme.[9]

Sampling and Data Collection

A multistage sampling technique was employed in this research. The study LGA was purposively selected.

Stage 1: Selection of political wards
Three political wards were randomly selected from the list of 10 political wards in the LGA.

Stage 2: Selection of communities
From each of the randomly selected political wards, a list of communities was drawn and a community was randomly selected.

Stage 3: Selection of streets
Streets were selected from each of the selected communities by random sampling

Stage 4: Selection of households
All households in the randomly selected streets were used for questionnaire administration.

The household head or the most senior individual in the household who can act in such capacity was the respondent of the questions.

A household is a group of persons who live together and eat from the same pot where as a household head is the person responsible for executing leadership and financial decisions in the household.[3] Semi-structured, interviewer-administered questionnaire with both open and close-ended questions was used to generate quantitative data using an open data kit (electronic form). Contents of the questionnaire were adapted from similar studies.[8,3,10,11,12,13]

Data was collected using ODK (open-data-kit) software with the aid of android devices by the researcher over three days. Seven (7) trained research assistants were involved in the data collection process. The training of research assistants lasted for three days. Each day entailed lectures, brainstorming and role play over 4 hours. The content of the training included a basic introduction to ODK, how to install ODK-collect software application, how to fill an electronic questionnaire, including editing, saving and retrieving the forms, etc. The researcher supervised and monitored the data collection process to ensure the quality of the data collected.

DATA MANAGEMENT AND ANALYSIS

Data were cleaned and analysed using STATA version 13. Variables were presented using tables, frequencies and percentages. Means and standard deviations, bivariate and multivariate analysis were also computed. Microsoft Excel was used to form tables and charts. Results were considered statistically significant if p-value was ≤ 0.05

ETHICAL CONSIDERATION

Ethical approval was obtained from the ethical review committee of Katsina state ministry of health. Permission was also sought from the respective community leaders of the affected communities. Informed consent was sought from the respondents while at the same time explaining to the respondents that participation is voluntary, he/she can withdraw at any point in time. Besides, the respondent can ask questions or clarifications. He/she can decide not to answer questions that he/she feels uncomfortable with. The respondents were made to know that absolute confidentiality will be ensured and that the findings of the research will be strictly used for the intended purpose.

RESULTS

Table 1: Socio-demographic characteristics of Household heads of Batagarawa LGA, Katsina State 2016

Characteristics	Frequency (n=200)	Per cent %
Age of respondents		
<20	5	2.5
20-29	55	27.5
30 -39	57	28.5
40 -49	44	22
50 -59	21	10.5
60 -69	18	9
Sex of respondents		
Males		93
Females		7
Marital status		
Single	10	5
Married	180	90
Divorced	3	1.5
Widowed	5	2.5
Separated	2	1
Highest Level of		
Education		
None	3	1.5
Quranic	115	57.5
Primary	33	16.5
Secondary	33	16.5
Tertiary	16	8
Tribe		
Hausa	194	97
Igbo	2	1
Yoruba	1	0.5
Others	3	1.5
Religion		
Islam	197	98.5
Christianity	3	1.5
Occupation		
None	2	1
Farming	75	37.5
Civil service	11	5.5
Business	44	22
Income		
Below minimum wage	120	60
Equivalent to minimum wage	2	1
Above minimum wage	78	39
Household size		
Small (1-4 members)	33	16.5
Moderate (5-9 members)	71	35.5
Large 10 or more members	96	48

The majority (90.5%) were willing to pay for CBHI. Also, the average premium respondents were willing to pay was found to be 100 Naira per household member per month.

The majority (28.5%) of the respondents were within the age bracket 39 to 49 years (Mean: 38.13±13.23SD), married (90%), belong to the Hausa tribe (97%) and Islam as religion (98.5%). The major occupation of the respondents was farming (37.5%) and a high proportion (60%) of them earn below the national minimum wage.

Significant proportion (48%) of the households of the respondents had 10 or more members.

Table 2: Households' willingness to pay for community-based health insurance scheme in Batagarawa LGA, Katsina State 2016

Variable	Frequency	Percent (%)
Willingness to pay (WTP)		
Yes	181	90.5
No	19	9.5

The majority (90.5%) were willing to pay for CBHI. Also, the average premium respondents were willing to pay was found to be 100 Naira per household member per month.

Table 3: Factors Associated with Willingness to Pay for CBHI in Batagarawa LGA

Variable	WTP (Yes)	WTP (No)	Test Statistic P -value
Sex			
Males	170	19	χ^2= 1.222
Females	11	-	P=0.324
Marital Status			
Married	165	18	
Divorced	8	1	
Widowed	3	-	Fishers
Separated	4	-	Exact=1.344
Single	1	-	P=1.000
Tribe			
Hausa	177	19	
Igbo	1	-	
Others	3	-	Fishers
Religion			Exact=0.958
Islam	179	19	P=1.000
Christianity	2	-	
Occupation			χ^2= 0.212
None	1	-	P=0.819
Farming	69	9	
Artisan	48	7	
Business	37	2	
			Fishers
Civil Service	11	-	Exact=3.194
Others	15	1	P=0.692
Education			
None	3	-	
Quranic	101	15	
Primary	34	1	
Secondary	25	2	Fishers
Tertiary	18	1	Exact=3.656
Age group			P=0.465
<20	1	-	
20	40	4	
30	41	4	
40	46	7	
50	22	3	Fishers
60	17	-	Exact=3.498
70 & above	14	1	P=0.795

Table 4: Determinants of Willingness to Pay for CBHI in Batagarawa LGA, 2016

Variables	P-value	Odds Ratio	95%CI Lowe value	95%CI Upper value
Tribe				
Hausa	0.999	3.5	0.00	
Igbo	1	1	0.00	
Education				
None	1	0.0	0.00	
Quranic	0.251	3.485	0.413	29.387
Primary	0.67	0.542	0.32	9.285
Secondary	0.819	1.339	0.110	16.309
Religion				
Islam	1	0.0	0.00	
Age group				
<20	1	0.0	0.00	31.943
20 -29	0.354	3.041	0.289	23.679
30 -39	0.466	2.357	0.235	27.557
40 -49	0.316	3.071	0.342	30.912
50 -59	0.386	2.864	0.265	13.65
60 -69	0.386	1.235	0.00	

DISCUSSION

This study found that the majority of households, (90.5%) were willing to pay for community-based health insurance scheme (CBHI) (Table 2). The median premium was estimated to be 100 Naira per household member per month. A similar study in Cameroon revealed that 86.2% of respondents were willing to be involved in CBHI schemes and indicated readiness to pay a premium amount of 500 francs.[12] A lower willingness to pay was obtained in an Ethiopian study which showed that 39.7% of all respondents were willing to pay for CBHIS, 27.7% still prefer out-of-pocket spending and 19% will only join if it becomes a compulsory scheme.[6] This difference may be accounted for by poor understanding of the scheme and its benefits as well as lack of trust and confidence in the scheme. A study in Anambra state found that beneficiaries of an existing CBHI scheme were contributing a premium of 500 Naira per person per month.[8] This is higher than what the findings of this study revealed (median of 100 Naira per person per month) possibly because the standard and cost of living in that environment are higher. A similar research on factors influencing households' willingness to pay in NHIS in Osun state revealed that 74.52% were willing to pay when the premium is less than 200 Naira per month and only 2.4% were willing to pay a premium greater than 200 Naira.[13] High percentage willingness to pay for CBHI was obtained in rural communities of North Central Nigeria where research found that 87% of households were willing to pay into CBHI. The premium that was agreed upon was between 500-1200 Naira per household member per annum.[3] At bivariate analysis, none of the sociodemographic variables and other independent variables were significantly associated with the outcome variable. In the regression model, being Hausa by tribe, having Quranic education and being in the age group 20-29 and 40-49 increases the likelihood of willingness to pay by three times but these are not statistically significant (Table 4).

CONCLUSION AND RECOMMENDATIONS

In conclusion, the majority of the respondents were willing to pay for community-based health insurance scheme if it is established.

Consequently, we make the following recommendations.

1. The state ministry of health should look at the possibility of establishing a community-based health insurance scheme in the area to strengthen health system and reduce out-of-pocket expenditure for health services.
2. The state government should put in place mechanisms to empower the communities economically to be able to maintain adequately the price of the premium when CBHI is eventually established in the area.
3. There needs to be enlightenment on the need to increase school enrolment in the community as the majority of respondents lack formal education

Conflict of interest: The authors declare no conflict of interest.

REFERENCES

1. Ahsan SM, Mahmud M, Hamid SA, Barua S. Financing Health Care: An Evaluation of the NGO-led Micro Health Insurance. Bangladesh Health Watch Report 2011. 2012:63.
2. Ataguba JE. Community Health Insurance Scheme as a viable option for rural population in Nigeria. Center for the study of African economies CSAE. 2008:1-11.
3. Babatunde OA, Akande T, Salaudeen A, Aderibigbe S, Elegbede O, Ayodele L. Willingness to pay for community health insurance and its determinants among household heads in rural communities in North-Central Nigeria. Int Rev Soc Sci Humanitie. 2012;2(2):133-42.
4. Ghosh S, Mondal S. Morbidity, Health Expenditure and Willingness to Pay for Health Insurance amongst the Urban Poor A Case Study. Journal of Health Management. 2011;13(4):419-37.
5. Jütting J. Health insurance for the poor?: Determinants of participation in community-based health insurance schemes in rural Senegal: Citeseer; 2003.
6. Entele BR, Emodi NV. Health Insurance Technology in Ethiopia: Willingness to Pay and Its Implication for Health Care Financing. American Journal of Public Health Research. 2016;4(3):98-106.
7. Mathauer I, Schmidt JO, Wenyaa M. Extending social health insurance to the informal sector in Kenya. An assessment of factors affecting demand. The International journal of health planning and management. 2008;23(1):51-68.
8. Onwujekwe O, Uzochukwu B, Kirigia J. Basis for effective community-based Health Insurance schemes: investigating inequities in catastrophic out-of-pocket health expenditures, affordability and altruism. African Journal of Health Economics. 2011;1:1-11.
9. Abdul B. Health profile of Batagarawa Local Government Area. 2016.
10. Bukola AU. Preferred Mode of Payments for Community Based Health Care Financing Scheme among Households in Osun State, Southwestern Nigeria. Journal of Natural Sciences Research. 2013;Vol.3, No.1,(2224-3186.
11. Lutz-Tveite M, Urbandale I. Inequality in Health Services in Rural South America.
12. Noubiap JJN. Community-based health insurance knowledge, concern, preferences, and financial planning for healthcare among informal sector workers in a health district of Douala, Cameroon. The Pan African Medical Journal. 2013;16(17).
13. Oyekale AS. Factors Influencing Households' Willingness to Pay for National Health Insurance Scheme (NHIS) in Osun State, Nigeria. Studies on Ethno-Medicine. 2012;6(3):167-72.

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