



## Awareness, Attitude and Willingness of Artisans in Osun State South-western Nigeria to Participate in Community Based Health Insurance

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### KEYWORDS

Artisans,  
CBHIS,  
willingness to  
pay (WTP),  
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### ABSTRACT

**Introduction:** Community Based Health Insurance Scheme was recently launched in Nigeria with a view to reducing the burden of out-of-pocket expenditure on health most especially among Nigerians in the informal sector. The objective of this study is to assess the awareness, attitude and willingness of artisans in Osun state to take part in Community based health insurance scheme in Nigeria.

**Methods:** Descriptive cross sectional survey of 387 artisans in Osun state in South-western Nigeria. Respondents were selected using multi stage sampling method. Research instruments were semi structured interviewer administered pre tested questionnaires that was divided into five sections. Data was analysed using the SPSS software.

**Results:** Mean age of the artisans was  $33.1 \pm 11.2$  years. One hundred and twenty six (76.4%) of those who always visit the hospital when ill) used out of pocket as their form of health care financing. One hundred and twelve (28.9%) of the respondents have heard of health insurance before. Only fifteen (3.9%) of the artisans had been on any forms of Health Insurance, of which 13(86.7%) were on the National Health Insurance Scheme (NHIS). Twenty five (6.5%) of artisans had heard of community health insurance before and only 2(0.5%) were enrolled in a form of Community Based Health Insurance (CBHI). Most of the respondents (319; 82.4%) were willing to participate (WTP) in Health Insurance with the preferred organizer being government (236; 74.0%). The mean amount of money respondents were willing to contribute monthly per household was  $1,121.8 \pm 14.04$  Naira. There was a statistically significant relationship between awareness about CBHI and educational status ( $p=0.003$ ), and between WTP in health insurance and monthly income ( $p=0.014$ ). The amount respondents were willing to pay monthly for health insurance was found to be significantly associated with their monthly income ( $p<0.001$ ) and their educational status ( $p<0.001$ ).

**Conclusion:** Artisan's awareness about CBHIS is low. Most artisans showed favourable attitude towards participating in a Government backed and well organised scheme, as well as a good attitude towards willingness to pay in the scheme.

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### INTRODUCTION

In the early 1970s, the African public health systems deteriorated in parallel with the deepening economic crisis, while the subsequent introduction of user fees further impeded access to care and aggravated inequity.<sup>1</sup> Government expenditure on health in sub-Saharan Africa has severally been described as being inadequate, insufficient, inequitable and unsustainable.<sup>2</sup> In Nigeria as in many other countries, health care financing were majorly out of pockets.<sup>3</sup> However, the burden of paying for

health care has been a performance indicator for assessment of national health systems according to the World Health Report.<sup>4</sup> As a way of addressing the gross inequalities in health care system, many countries adopted the National Health Insurance Scheme (NHIS) as a way of health care financing.

The scheme eventually came into lime light in Nigeria in May 1999, and it was created to encompass government employees, the organized private sector and the informal sector. Unfortunately, Nigerian NHIS has been solely formal, with no

provision for private employees and the informal sectors. Only a small fraction, about 15% of the entire population had access to the scheme<sup>5</sup>. Nigerians are already calling for the liberalization of the health insurance scheme as obtainable in some developed economies in order to serve Nigerians wherever they live or work. This is because NHIS in Nigeria has been characterized by a lot of misconceptions, fears about workability of the scheme, concerns as regards workers financial contribution to the scheme and the sincerity of government in financing the scheme beyond the formal sector

In 2005, the World Health Assembly explicitly urged its member states to strive and plan for universal coverage, within the particular macroeconomic, socio-cultural and political context of each country<sup>6</sup>, and it is on the basis of this that Community Health Insurance became the beautiful bride to herald universal coverage. Community Health Insurance is a non-profit health insurance programme for a cohesive group of households or individuals such as a community-which is run by the individuals members in the community who make contribution in cash, paid as a flat monthly rate or instalmentally<sup>7</sup>. Community Based Health Insurance Scheme (CBHIS) are usually operated by a community-based organization, other than government or a private for-profit company, that provides risk-pooling to cover the costs (or some part thereof) of health care services.

Beneficiaries of CBHIS are associated with, or involved in the management of community-based schemes, at least in the choice of the health services it covers. It is voluntary in nature, formed on the basis of an ethic of mutual aid, and covers a variety of benefit packages. Community Health Insurance in Africa should however be seen in the context of large majorities within the population trapped in poverty and excluded from formal social security system.<sup>8</sup> CBHIS has been shown to be effective in reducing out-of-pocket payments of their members, and in improving access to health services.

Artisans such as vulcanizers, carpenters, bricklayers, drivers etc constitutes significant

number in a population, and could come together to pursue matters, such as health that can be beneficial to members. These groups could readily provide the platform for organisations that can transmute into focal groups to further their members' interests. Recognizing that civil servants only represent a minority in terms of numbers of Nigerians, government recently launched the CBIS in 2011, and its implementation is still being worked out. In the CHIS, contribution rate will depend on the health package chosen by members of the user group. A prospective participant must be a member of a community that constitute a user group, and there must be a sizeable membership for each group to ensure adequate pooling of resources.

The informal sector such as artisan could be described as having unstable income, poor and non-organised in their mode of operation at work. This could serve as factors that may negatively affect the full operationalization of the scheme. It is thus important to assess the awareness, attitude towards and willingness of this group of Nigerians in the informal sector to participate in the scheme. This will also serve as baseline for further recommendations to stakeholders in the scheme, and ultimately help in organizing and managing the scheme for better acceptability to the communities. This study therefore aims to assess the awareness, attitude and willingness of artisans in Osun state south-western Nigeria to participate in the CBHIS.

## METHODS

This was a descriptive cross sectional study carried out in Osun state in South-western Nigeria. The study population consists of artisans who exist in various parts of the state. Common artisan groups include auto mechanics, electricians, fashion designers, hair dressers and carpenters, and they form members of the larger society in which they live. Various artisans also exist in like groups or associations with common interest, the basis upon which they could also protect and promote their health as well as that of their family. Artisans not registered with their umbrella group or association and non-artisans such as traders, civil servants and private employees were excluded from this study.

Using the formula for calculation of sample size for

population greater than 10,000,<sup>9</sup> a minimum sample size of 384 was obtained using the Leslie Fischer's formula with the expression  $n = Z^2 pq/d^2$ , confidence interval set at 95%, normal deviation  $Z=1.96$  and  $d=0.05$  was used. This was increased to 400 to account for possible cases of attrition.

A multistage sampling method was employed in the sampling selection. In the first stage, two out of three senatorial districts in Osun State were selected using simple random sampling method employing simple balloting, and this evolved Osun central and Osun west senatorial districts. In each district, there are ten local government councils. Four of these were chosen using simple random sampling technique. A list of major cities or towns per local government was made, and the associations of all major artisans were approached. The major groups of artisans that were merged into clusters and sampled include electricians, mechanics, fashion designers, hair dressers and carpenters. Questionnaires were proportionally allocated to each artisan group based on the total number in each group. During their monthly meeting, questionnaires were administered on selected artisans using systematic sampling method. A sampling frame or list of the artisans that attended the meeting was prepared, and one in three artisans on the list was systematically selected until total number of allocated questionnaires allocated to that day and group was exhausted.

Research instruments were semi structured interviewer administered pre tested questionnaires that was divided into five sections. Study variables include socio-demographic data, awareness and attitude towards CBHIS and willingness to participate in the scheme. Five trained research assistants were employed in data collection. The questionnaires were also translated into the local language for ease of clarity of its content. Ethical clearance was obtained from LAUTECH Teaching Hospital, Osogbo ethical review committee while written informed consent was obtained from individual participants with assurance of confidentiality. Data was analyzed using the SPSS software version 17. Data obtained was validated by double entry and random checks. Frequency tables were generated and relevant summary statistics were

computed. Inferential statistics was carried out using Analysis of Variance and chi-square test or Fischer's exact test (where multiple cells are  $<5$ ) at a level of significance of  $p < 0.05$ .

## RESULTS

A total of 387 questionnaires were completely filled and analyzed giving a response rate of 96.8%. Table I shows the socio-demographic characteristics of respondents. Majority of the respondents were between 20 and 39 years of age with a mean age of  $33.1 \pm 11.2$  years. They were mostly males (281; 72.6%), married (287; 74.2%), Muslims (225; 58.1%), Yorubas (368; 95.1%) and had secondary school education (215; 55.6%). One hundred and eighty four (47.5%) earned less than 10,000 naira every month, 102 (26.4%) earned 10,000 to 19,999 naira while only 18 (4.7%) of them earned above 40,000 naira. The mean number in each household was  $5.6 \pm 1.7$ . The artisans had various job designations including mechanics (93; 24.0%), carpenters (81; 20.9%), fashion designers (48; 12.4%) and a number of others as shown in Table II.

Table III shows health seeking behaviour of respondents. The preferred mode of care for majority of the respondents (189; 48.8%) was both the orthodox and traditional/herbal medicine, and only 150 (38.8%) visit the hospital whenever they were ill. The major reason given by others was that it was not always necessary for minor illnesses (116; 48.9%) and 37 (15.6%) of those who did not visit the hospital every time they were ill had no reason for not doing so. In treating members of their household who were ill in the last 4 weeks, one hundred and twenty six (76.4% of those who always visit the hospital when ill) used out of pocket (including 66; 40.2% on over the counter paid drugs and 60; 36.2% on paid hospital care), and 11 (6.5%) had to borrow money or sell some personal properties to pay their health bill. The average number of health centres within walking distance from respondents' houses was  $1.8 \pm 1.3$ , with the mean walking time to the health centres being  $14.4 \pm 12.5$  minutes.

Table IV shows respondents awareness and willingness to participate in health insurance. One hundred and twelve (28.9%) of the respondents had

heard of health insurance before, but only fifteen (3.9%) of the artisans had been on any forms of Health Insurance before which was mostly (13; 86.7%) the National Health Insurance Scheme (NHIS). Twenty five (6.5%) had heard of community health insurance before and 2(0.5%) were enrolled in a form of Community Health Insurance. The major source of information on health insurance was the television (32; 41.6%). Others were friends (13; 16.9%), health workers (12; 15.6%) and the radio (10; 13.0%). Most of the respondents (319; 82.4%) were willing to participate in Health Insurance with the preferred organizer for majority of them being the government (236;

74.0%). The mean amount of money respondents were willing to contribute monthly per household was  $1,121.8 \pm 14.04$  Naira.

Table V revealed a statistically significant relationship between awareness about CHI and religion ( $p=0.006$ ) and educational status ( $p=0.003$ ), while Table VI revealed a statistically significant relationship between willingness to participate (WTP) in health insurance and religion ( $p=0.030$ ) and monthly income ( $p=0.014$ ). Using ANOVA, the amount respondents were willing to pay monthly for health insurance was found to be significantly associated with their monthly income ( $p<0.001$ ) and their educational status ( $p<0.001$ ).

**Table 1: Socio-Demographic Characteristics of Respondents (N=387)**

Variables	Frequency	Percentage
<b>Age Group (in years)</b>		
Less than 20	11	2.8
20 – 29	160	41.3
30 – 39	122	31.5
40 – 49	52	13.5
50 – 59	26	6.8
60 and above	16	4.1
<b>Gender</b>		
Male	281	72.6
Female	106	27.4
<b>Educational Status</b>		
No formal education	25	6.5
Primary school	95	24.5
Secondary school	215	55.6
Tertiary school	52	13.4
<b>Religion</b>		
Christianity	159	41.1
Islam	225	58.1
Others	3	0.8
<b>Marital status</b>		
Single	96	24.8
Married	287	74.2
Widowed	2	0.5
Separated/Divorced	2	0.5
<b>Tribe</b>		
Yoruba	368	95.0
Igbo	8	2.1
Hausa	5	1.3
Others	6	1.6

**Table 2: Job Designation of Respondents**

<b>Job Designation</b>	<b>Frequency</b>	<b>Percentage</b>
Bricklayer	9	2.3
Electrician	40	10.3
Mechanic	93	24.0
Panel beater	7	1.9
Food vendor	8	2.1
Fashion Designer	48	12.4
Hair Dresser	41	10.6
Carpenter	81	20.9
Others	60	15.5
<b>Total</b>	<b>387</b>	<b>100.0</b>

**Table 3: Respondents Health Seeking Behaviour (N=387)**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Preferred mode of care</b>		
Orthodox medicine	162	41.9
Traditional/Herbal medicine	36	9.3
Both	189	48.8
<b>Visits the hospital whenever ill</b>		
Yes	150	38.8
No	237	61.2
<b>Reasons for not always visiting the hospital when ill (n = 237)</b>		
No reason	37	15.6
Not always necessary for minor illnesses	116	48.9
Not all illnesses are meant for the hospital	32	13.5
It is expensive	22	9.3
Long waiting time in the hospitals	4	1.7
Prefer herbal medicine	17	7.2
Prefer to visit chemist/pharmacy shops	9	3.8
<b>Member of the household (including self) has been ill in the last 4 weeks</b>		
Yes	165	42.6
No	202	52.2
No response	20	5.2
<b>Mode of treatment adopted (n = 165)</b>		
Hospital care-out of pocket	60	36.4
Over-the-Counter drugs-out of pocket	66	40.0
Herbal care	18	10.9
Nothing was done	21	12.7
<b>Had to borrow money or sell personal property to pay</b>		
Yes	11	6.5
No	154	93.5

**Table 4: Respondents Awareness and Willingness to participate in Health Insurance**

<b>Variables</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Ever heard of Health Insurance before</b>		
Yes	112	28.9
No	275	71.1
<b>Ever been on any form of health insurance</b>		
Yes	15	3.9
No	372	96.1
<b>Type of health insurance (n = 15)</b>		
Retainership at workplace	2	13.3
National Health Insurance Scheme	13	86.7
<b>Ever heard of Community Health Insurance</b>		
Yes	25	6.5
No	347	89.6
Don't know	15	3.9
<b>Source of information about Health Insurance (n = 112)</b>		
Radio	35	31.2
Television	32	28.6
Friends	18	16.1
Health workers	12	10.7
Others	15	13.4
<b>Currently enrolled in Community Health Insurance</b>		
Yes	2	0.5
No	385	99.5
<b>Willing to participate in Health Insurance</b>		
Yes	319	82.4
No	48	12.4
Don't know	20	5.2
<b>Preferred organizer of Insurance Scheme (n = 319)</b>		
Government	236	74.0
Community	83	26.0
<b>Preferred services to be covered by Health Insurance</b>		
<b>(multiple choice)</b>		
Out-patient services	193	49.9
Antenatal clinic and delivery services	153	39.5
In-patient care	137	35.4
Minor surgeries	147	38.0
Major surgeries	106	27.4

**Table 5: Effect of Socio-demographic Characteristics on Respondents Awareness about Community Health Insurance (CHI)**

Variables	Ever heard of CHI (%)			X <sup>2</sup>	p-value
	Yes	No	Don't know		
<b>Age Group (in years)</b>					
Less than 20	3(27.3)	8(72.7)	0(0.0)	17.74	0.59
20 – 29	13(8.1)	142(88.8)	5(3.1)		
30 – 39	6(4.9)	112(91.8)	4(3.3)		
40 – 49	2(3.8)	46(88.5)	4(7.7)		
50 – 59	1(3.8)	25(96.2)	0(0.0)		
60 and above	0(0.0)	14(87.5)	2(12.5)		
<b>Gender</b>					
Male	13(4.6)	257(91.5)	11(3.9)	5.71	0.57
Female	12(11.3)	90(84.9)	4(3.8)		
<b>Religion</b>					
Christianity	19(11.9)	136(85.5)	4(2.5)	14.63	0.006
Islam	6(2.7)	208(92.4)	11(4.9)		
Others	0(0.0)	3(100.0)	0(0.0)		
<b>Educational Status</b>					
Nil formal education	0(0.0)	23(92.0)	2(8.0)	19.44	0.003
Primary school education	2(2.1)	90(94.7)	3(3.2)		
Secondary school education	15(7.0)	195(90.7)	5(2.3)		
Tertiary education	8(15.4)	39(75.0)	5(9.6)		
<b>Income per month (in Naira)</b>					
Less than 10,000	9(4.9)	166(90.2)	9(4.9)	9.23	0.510
10,000 – 19,999	9(8.8)	90(88.2)	3(2.9)		
20,000 – 29,999	4(10.5)	33(86.8)	1(2.6)		
30,000 – 39,999	2(9.5)	17(81.0)	2(9.5)		
40,000 and above	1(5.6)	17(94.4)	0(0.0)		

**Table 6: Effect of Socio-demographic Characteristics on Respondents Willingness to Participate (WTP) in Health Insurance**

Variables	WTP in Health Insurance (%)			F test /X <sup>2</sup>	p-value
	Yes	No	Don't know		
<b>Age Group (in years)</b>					
Less than 20	9(81.8)	2(18.2)	0(0.0)	7.20	0.706
20 – 29	132(82.5)	18(11.2)	10(6.2)		
30 – 39	99(81.1)	15(12.3)	8(6.6)		
40 – 49	43(82.7)	7(13.5)	2(3.8)		
50 – 59	24(92.3)	2(7.7)	0(0.0)		
60 and above	12(75.0)	4(25.0)	0(0.0)		
<b>Gender</b>					
Male	228(81.1)	36(12.8)	17(6.0)	1.89	0.389
Female	91(85.8)	12(11.3)	3(2.8)		
<b>Religion</b>					
Christianity	138(86.8)	13(8.2)	8(5.0)	10.73	0.030
Islam	180(80.0)	34(15.1)	11(4.9)		
Others	1(33.3)	1(33.3)	1(33.3)		
<b>Educational Status</b>					
No formal education	21(84.0)	2(8.0)	2(8.0)	5.23	0.514
Primary school education	80(2.1)	12(12.6)	3(3.2)		
Secondary school education	171(79.5)	31(14.4)	13(6.0)		
Tertiary education	47(90.4)	3(5.8)	2(3.8)		
<b>Income per month (in Naira)</b>					
Less than 10,000	155(84.2)	21(11.4)	8(4.3)	22.19	0.014
10,000 – 19,999	83(81.4)	12(11.8)	7(6.9)		
20,000 – 29,999	35(92.1)	1(2.6)	2(5.3)		
30,000 – 39,999	16(76.2)	4(19.0)	1(4.8)		
40,000 and above	17(94.4)	1(5.6)	0(0.0)		

F test = Fischer's exact test X<sup>2</sup> = Chi squared test

## DISCUSSIONS

In this study, majority of health care spending were out of pocket. This agreed with similar studies on modes of health care spending done in Nigeria and other low and middle income countries.<sup>10-14</sup> However, out of pocket payment may not be sustainable and efficient enough to cater for the artisans majority of who may have large families, multiple wives and meagre total monthly earnings. As a way of addressing the gross inequalities in health care system which may result from unequal distribution of wealth in societies, many countries adopted the National Health Insurance Scheme as a

way of health care financing. Health insurance as a complementary or alternative source of health care financing has become important in the developing world.<sup>11</sup> It has been implemented as part of health reform programmes and strategies aimed towards providing effective and efficient health care for citizens, most especially for the poor and vulnerable.<sup>15</sup>

In this study, about one third of the respondents had heard of health insurance before, but only very few of the artisans had been on some forms of Health Insurance in the past. This agreed with another study in which two thirds were aware of NHIS but in



which very few as well have so far benefited from NHIS.<sup>14</sup> However, studies have shown that health insurance of any form is used by an insignificant proportion of people in Nigeria.<sup>13,16</sup> It is important to note that HIS in Nigeria is still a new concept with little experience in the field. In addition, NHIS in Nigeria is basically formal with little plans for artisans and other similar members of the population in the informal sector.

Very few (6.5%) had heard of community health insurance before and only 2(0.5%) were enrolled in a form of Community Health Insurance. This supports another Nigerian study in which majority of respondents were neither aware of CBHIS nor took part in the scheme.<sup>15</sup> The CBHIS in Nigeria was recently launched and this may explain the generally low awareness and participation so far in the scheme. However, due to uncertainties as regards the workability of the scheme which may be overwhelmingly controlled by community and private sector as opposed to Government controlled NHIS, there are reservations about the workability of the scheme in the Nigerian context. Many CBHIS schemes are bound to fail if not properly managed. Problems, such as weak management, poor quality government health services, and the limited resources that local population can mobilize to finance health care, can impede success.

However, CBHI could reduce out-of-pocket expenditure and improve cost recovery. It appears to be the most appropriate insurance model for the informal sector and rural areas, where incomes are unstable. This may explain findings from this study that majority were willing to participate in the scheme when Government will be the organizers of the scheme. This agreed with a study carried out in India with similar findings.<sup>17</sup> CBHIs should be regarded as a complement to, not as a substitute for, strong government involvement in health care financing and risk management related to the cost of illness. Government, and its development partners, can support the growth of CBHIs by ensuring that there is a satisfactory supply of appropriate health services, by subsidizing start-up costs and the premium costs of the poor.

In this study, most of the respondents were willing to

participate in the CB Health Insurance, and were willing to contribute an average of over a thousand naira monthly per household. Similar previous studies found that most people were willing to pay for CBHI.<sup>18,19</sup> However, this finding contradicts another study,<sup>20</sup> in which only a little less than two-third of the respondents were willing to pay for CBHI membership for themselves or other household members. In this study, the mean willingness-to-pay (WTP) amounts were comparably low, and this agreed with findings from a household survey carried out in Heidelberg, Germany using a two-stage cluster sampling method.<sup>21</sup> However like this study, WTP depend on many factors such as socio-economic status most especially income and education status.<sup>21</sup> A low WTP and poor attitude towards joining the CBIS would only serve as deterrent to the CBHIS which if properly implemented will relieve the informal sector the burden of out of pocket payments for health care.

## Conclusions

The artisans studied used out of pocket resources to finance health care needs. While awareness about CBHIs is low, most artisans showed favourable attitude towards joining the scheme, good attitude towards willingness to pay in the scheme amidst some reservations for the scheme if government will not be coordinating and managing the scheme. A well organised CBHIS could serve as a way of addressing the gross inequalities in health care system brought about by the burden of out of pocket payment for health care especially amongst the majority of the populace that are in the informal sector.

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## REFERENCES

1. Gilson L, Kalyalya D, Kuchler F, Lake S, Oranga H and Ouendo M. The equity impacts of community financing activities in three African countries. *International Journal of Health Planning and Management*, 2000; 15: 291-317.
2. Werner D. The build up to the crisis. *Contact*, 1995;141:1-4.
3. Lloyd AA. "Government health care spending and the poor: evidence from Nigeria", *International Journal of Social Economics*, 2009; 36 (3):220-236
4. WHO. The World Health Report 2000, Health systems: improving performance, Geneva, WHO, 2000.
5. World Health Organization (WHO). (2010). National Health Accounts. Geneva: World Health Organization. Available at <http://www.who.int/nha>. Accessed 5/2/2012.
6. World Health Report (2010). Background Paper, 48.
7. National Health Insurance Scheme. Rural Community Social Health Insurance Programme. Accessed 6/2/2012. Available at [http://www.nhis.gov.ng/index.php?option=com\\_content&view=article&id=56&Itemid=72](http://www.nhis.gov.ng/index.php?option=com_content&view=article&id=56&Itemid=72).
8. Ndiaye P, Soors W and Criel B. A view from beneath: Community Health Insurance in Africa [Editorial]. *Tropical Medicine and International Health*, 2007; 12(2): 157-161.
9. Olawuyi, J. F. Choosing the study subjects and sampling; In Biostatistics, a foundation course in health sciences. First edition. *Yotson consult publishers*. Ibadan. 1996: 110 - 118
10. Soyibo A. National Health Accounts of Nigeria, 1998-2002. Ibadan, Nigeria: University of Ibadan; 2004.
11. McIntyre D. Learning from experience: Health care financing in low and middle income countries. *Global Forum for Health Research, Geneva*; 2007.
12. Ichoku HE, Fonta W. The distributive effect of health care financing in Nigeria. PEP Working Paper, No. 2006-17. University of Laval, Canada 2006.
13. Onwujekwe O, Uzochukwu B. Socio-economic and geographic differentials in costs and payment strategies for primary health care services in southeast Nigeria. *Health Policy*, 2005;71:383-397.
14. Olugbenga-Bello AI, Adebimpe WO. Knowledge and attitude of civil servants in Osun state, Southwestern Nigeria towards the national health insurance. *Niger J Clin Pract*, 2010;13:421-426.
15. NHIS: National health insurance scheme annual report. National Health Insurance Scheme Abuja, Nigeria; 2006.
16. Onwujekwe O, Velenyi E. Feasibility of voluntary health insurance in Nigeria. Washington, DC: The World Bank; 2006.
17. Mathiyazhagan K. Willingness to pay for rural health insurance through community participation in India. *Int J Health Plann Manage*, 1998;13(1):47-67.
18. Dong H, Kouyate B, Cairns J, Mugisha F, Sauerborn R.. Willingness to pay for community-based insurance in Burkina Faso. *Health Economics*, 2003a;12: 849-862.
19. Dong H, Kouyate B, Snow R, Mugisha F, Sauerborn R.. Gender's effect on willingness to pay for community-based insurance in Burkina Faso. *Health Policy* 2003b; 64:153-162.
20. Onwujekwe O, Okereke E, Onoka C, Uzochukwu B, Kirigia J and Petu A. Willingness to pay for community-based health insurance in Nigeria: do economic status and place of residence matter? *Health Policy and Planning*, 2009; 25(2):155-161
21. Dong H, Kouyate B, Cairns J, Sauerborn R.. Inequality in willingness to pay for community based health insurance. *Health Policy*, 2005;72:149-156.