

# Knowledge and Uptake of Community-Based Health Insurance Scheme among Residents of Olowora, Lagos

Ibukun OA, \*Olatona FA, Oridota ES, Okafor IP, Onajole AT

*Department of Community Health and Primary Care, College of Medicine, University of Lagos*

**Corresponding Author:**

**Dr F. A. Olatona,**

*Department of Community Health and Primary Care,*

*College of Medicine, University of Lagos.*

*E-mail:folaton@gmail.com.*

## ABSTRACT

**Background and Objective:** The informal sector population in developing nations has low health coverage from Community Based Health Insurance (CBHI) and problems such as limited awareness about the potential impact of prepayment health financing and the limited resources to finance health care can impede success. This study assessed the community based health insurance scheme uptake and determinants in Olowora, Lagos State.

**Methods:** This was a descriptive cross sectional study carried out in July 2010 in all households of 12 out of 41 streets in Olowora, by multistage sampling. Four hundred and sixteen interviewer-administered questionnaires were completed and returned. Analysis was by Epi- info version 3.5.1 software.

**Results:** Although 75.5% of respondents were aware of the Community Health Insurance scheme at Olowora, just about half (49.5%) of them had good knowledge of the scheme. A substantial proportion (44.2%) of respondents did not believe in contributing money for illness yet to come, and majority (72.3%) of such respondents prefers payment for health care when ill. While about half (53%) of respondents had enrolled into the community health insurance scheme, 45.6% of those who had not enrolled were not aware of the scheme. Lack of money was the main reason (51.5%) why some enrollees had defaulted.

**Conclusion:** The study identified information gaps and poor understanding of the scheme as well as poverty as factors that have negatively affected uptake. The scheme management has to re-evaluate its sensitization programmes, and also strengthen marketing strategies with special emphasis on the poor.

**Key words:** Health Insurance Scheme, uptake, enrollee, Lagos.

## INTRODUCTION

The World Health Organization (WHO) estimates that each year, about 178 million people cannot pay for their health care and many low income countries have not been able to meet the basic health care needs of their people, especially those in the rural areas.<sup>1</sup> A very high proportion of the primary health care facilities serve only about 5-10% of their potential load.<sup>2</sup> How to finance and provide health care for the more than 1.3 billion rural poor and informal sector workers in low- and middle-income countries is one of the greatest challenges facing the international development community. Many poor people lack access to effective and affordable drugs and to surgery and other interventions, largely because of weaknesses in the financing and delivery of health care. Although 93% of the global burden of disease falls on 84% of the world's poor, only 11% of global health spending (US\$ 2800 billion) occurs in low- and middle-income countries.<sup>2</sup>

The difficulties often encountered in out-of-pocket expenses has compelled introduction of prepaid health insurance in many developing countries. Therefore, in a bid to improve the health status of Nigerians, the government started a comprehensive health care financing strategy, including the fast tracking of the National Health Insurance Scheme (NHIS) in 2005, hoping to enhance community participation in providing and financing health services.

Community-based health insurance schemes (CBHIS) are typically targeted at poorer populations living in communities, in which they are involved in defining contribution level and collecting mechanisms, defining the content of the benefit package, and or allocating the schemes' financial resources.<sup>3</sup> A recent survey of literature on community-based pre-payment schemes highlights that population coverage by these schemes has remained relatively low and that the most vulnerable households are not currently incorporated.<sup>4</sup> Thus, most of these

## *Uptake of Community-Based Health Insurance Scheme*

schemes have small risk pools and limited cross-subsidies (from the healthy to the ill and from the wealthy to the poor). Another recent critical assessment of such schemes highlights the importance of better understanding how they interact with other elements of the health care financing system.<sup>4</sup>

Based on the Nigerian national health insurance scheme (NHIS) guidelines, and some other studies, **the community prepayment not-for profit scheme has been proposed to be most relevant in Nigeria and in other "low income countries" because it enables the members to decide on how and when to pay their premiums so that the scheme is responsive to their needs.**<sup>5,6</sup>

The use of community prepayment schemes has drawn lot of interest in international health policy debates.<sup>7</sup> The fact that in many schemes communities participate in the process of defining the benefit package to be covered in advance (what to buy, in what form, and what to exclude) is a strength of CBHI.<sup>8</sup> Despite the appealing attributes of CBHI schemes, several operational difficulties have limited the success of several schemes.<sup>9</sup>

**Many of the shortcomings of CBHI relate to problems with scheme design, weak management and a lack of institutional capacity.**<sup>8,10,11</sup> In Nigeria, such challenges could include scarcity of resources, limited experience with insurance mechanisms to pool and manage risk, and inefficient revenue collection, pooling and resource allocation and purchasing<sup>12</sup>. Poor access to health services and the predominant use of out of pocket payments and user fees as major forms of health financing has further worsened the health status of Nigerians making it difficult for the poor to get good healthcare and further impoverishing the people.<sup>12</sup>

This necessitated the creation of the Nigerian Health Insurance Scheme which is currently being implemented and was established to improve the health of Nigerians at an affordable cost. The benefit packages offered include basic outpatient and inpatient care, maternal and child health services etc though this only covers the formal sector. However the NHIS incorporates a community based financing scheme in order to take care of the informal sector.<sup>6</sup>

To design a benefit package which is affordable, equitable and sustainable that will satisfy a varied number of persons has proven to be challenging because most CBHI schemes offer across board **one benefit package, which mostly comprises curative services, generic drugs and uncomplicated deliveries.**<sup>13</sup> This is because most insurers are not willing to take costly risks for small schemes largely because it endangers solvency when the number of claims rise.<sup>14</sup> Moreover, to increase the benefit package will lead to an increase in the premium being paid.

It is very worrisome that most States and Local Governments have not been able to embrace the scheme. Even if they eventually do, 75% of the people in Nigeria belong to the informal sector and need to have health insurance. These are the people that can be included in the Community Based Health Insurance.<sup>15</sup>

Although, the trend is on the increase, less than 10% of the informal sector population in developing nations has health coverage from a Community Based Health Insurance (CBHI)

and problems such as **weak managements, poor quality government health services and the limited resources that local population can mobilize to finance health care can impede success.** In addition, the poorest groups are unlikely to become members of CBHIs because they are generally unable to afford the premiums.<sup>16</sup>

The World Health Organization also estimates that yearly, 104 million people are impoverished in order to pay for medical treatment and most households in Nigeria have a considerable large family size and a per capita income less than the average monthly income which invariably reduced the willingness to pay for the NHIS. Persons with health insurance may experience difficulty if their coverage does not extend to specific services or if deductibles are set at levels beyond their means to pay.<sup>13</sup> Therefore, a shift towards health insurance is welcomed in principle as proposed by the government, but achieving optimal involvement of the intended beneficiaries remains a major challenge. Past reviews of community financing have been largely descriptive, using macro level country data. Only recently have authors begun to consider the impact, strength and weaknesses of community based financing at the household level.<sup>16</sup> In Lagos state Nigeria, a pilot community-based health insurance scheme in Olowora was launched as a collaboration between the Ikosi-Isheri Local Council Area and the Lagos State Ministry of Health on July 23, 2008.<sup>17</sup>

This study aims to determine the knowledge, attitude, uptake and related factors of the community based health insurance scheme being operated at Olowora town.

### **MATERIALS AND METHODS**

The study was a descriptive cross sectional study in Olowora community in Ikosi-Isheri Local Council Development Area (LCDA) of Kosofe Local Government Area (LGA). Sample size estimation was done using the formula for descriptive studies:  $n = z^2pq/d^2$ . Assuming maximum variability and precision of 5%, a minimum sample size of 384 was calculated and the sample size  $n = 384/0.8 = 480$ .

**A multistage sampling technique was used for the survey. First, simple random sampling method was used to select 12 streets out of the 41 in Olowora Community. Next, all the houses on the selected streets were visited. Where there was more than a household in a house, only one was selected for interview by simple random sampling.**

A pretested, interviewer administered questionnaire was used for data collection, The exercise was conducted during weekends and public holidays over a period of two weeks, when most of the household heads or most knowledgeable person (by highest level of education attained) was expected to be met at home.

### **Data Analysis**

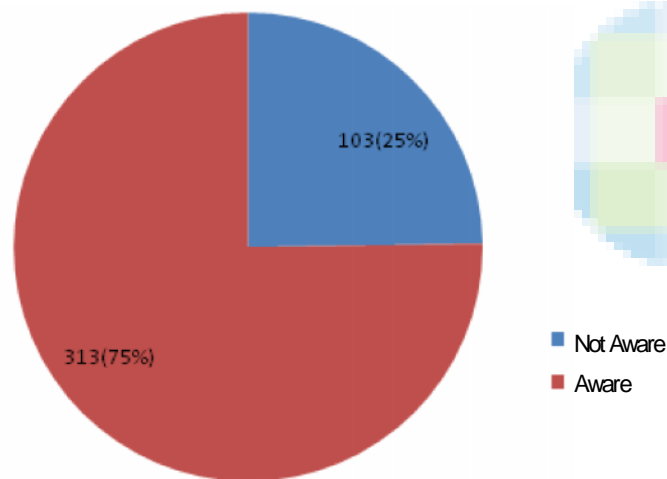
Epi-info (version 3.5.1), statistical software was used for data analysis. Each correct answer to the knowledge questions was scored 1 mark while a wrong answer or no response was scored 0. The total score for each respondent was determined and converted to a percentage of the total maximum score obtainable, and was then graded as poor (if less than 33%.) fair

(34-66%) and good (67% and above). Chi square test was used to test for associations at a significance level of 5%.

**RESULTS**

Although about 75% of respondents were aware of the community health insurance scheme (Figure 1), 49.5% had good knowledge of Community Health Insurance (Table 1). Majority of respondents (72.3%) who did not believe in contributing money before illness preferred to pay for their health care when ill (Table 2). While about half (53%) of respondents had enrolled into the community health insurance scheme (Figure 2), 45.6% of those who had not enrolled were not aware of the scheme and a quarter (25.6%) of them were not interested in health insurance (Table 3).

About half (51.5%) of those who were enrolled but could not renew their premium up to date said they did not have the money to do so (Table 4). There was a statistically significant association ( $p < 0.001$ ) between level of knowledge about community health insurance and uptake of the community health insurance at Olowora (Table 5). The higher the level of knowledge about the scheme, the higher the likelihood of enrollment into the scheme.



**Fig. 1: Awareness about the Olowora Community-based Health Insurance Scheme.**

**Table 1: Knowledge about the Olowora Scheme (N = 416)**

Level of Knowledge	Frequency (n)	Percentage (%)
Poor	106	25.5
Fair	104	25.0
Good	206	49.5
<b>Total</b>	<b>416</b>	<b>100.0</b>

**Table 2: Respondents' Reasons for not believing in Contribution before Treatment**

Reasons	Frequency (n)	Percentage (%)
It is like buying a disease	35	19.0
Prefer to pay when ill	133	72.3
Prefer to use money for other pressing needs	2	1.1
Others	14	7.6
<b>Total</b>	<b>184</b>	<b>100.0</b>



**Fig. 2: Respondents' Enrollment into the Scheme in Olowora**

**Table 3: Reasons for not enrolling into the Olowora Scheme (N = 195)**

Reasons	Frequency (n)	Percentage (%)
Not interested	50	25.6
Not aware of the scheme	89	45.6
Have other means of healthcare	36	18.5
Other reasons	20	10.3
<b>Total</b>	<b>195</b>	<b>100.0</b>

**Table 4: Reasons why premium was not paid up to date under the Olowora Scheme (n=70)**

Reasons	Frequency (n)	Percentage (%)
Not ill since enrollment	15	21.4
Not satisfied with quality of care	19	27.1
Don't have the money	36	51.5
<b>Total</b>	<b>70</b>	<b>100.0</b>

### Uptake of Community-Based Health Insurance Scheme

**Table 5: Association between Respondents' Level of Knowledge and Uptake of Olowora Scheme**

	Uptake n(%)	No uptake n(%)	$\chi^2$	p-value
<b>Knowledge</b>			<b>254</b>	<b>&lt;0.001</b>
Poor	0(0.0)	106(100.0)		
Fair	32(31.4)	71(68.3)		
Good	188(91.3)	18(8.7)		
<b>Total</b>	<b>221 (53.1)</b>	<b>195 (46.9)</b>		

#### DISCUSSION

This study aims to determine the knowledge, attitude, uptake and related factors of the community based health insurance scheme being operated at Olowora town.

Lack of information alone accounted for 45.6 % of reasons for non enrollment and this result is in agreement with earlier studies that suggested that **knowledge remains essentially an empowering tool in maintaining high enrolment**<sup>18</sup>.

In this study, as much as 44.2% of respondents did not really believe in contributing money for illness yet to come, and majority (72.3%) of such respondents preferred to pay for their health care when they fell ill. This may be due to the fact that insurance culture in Africa is not common, as pointed out by Aridiogbu in Nigeria<sup>19</sup>. Weak financial institutions in low-income countries was also identified as one of the causes of low insurance culture<sup>19</sup>.

In two Community Health Insurance schemes in Ghana and Mali, 53% and 25% of the target population of 25, 000 and 200 000, respectively were covered within the first few years of operation<sup>20</sup>. The results from this study agree more with the Ghana scheme where just two years after operation, about half of respondents (53%) were enrolled into the scheme.

In this study, some category of households could not afford the established premium; perhaps the introduction of income generating activities could ameliorate the situation for the core poor.

The significant positive effect of higher knowledge about the scheme on the enrollment is also noteworthy. If residents have more information about the scheme and how it operates, they are likely to enroll.

Some of the enrollees who did not fall sick and therefore had not benefited from the scheme felt that there were no 'benefits' in paying the contributions when not sick. However, most enrolled households saw the wisdom in pooling resources together since majority of them seemed to understand key features of the scheme than do those not enrolled.

The quality of care offered through the community-based health insurance scheme is another factor to be considered. Defaulting with premium payment was attributed to dissatisfaction with quality of care (QOC) by 27% of our respondents. It can then be assumed that if they were satisfied with QOC received, their payment may be up-to-date. The evaluation report of the Maliando scheme in Guinea-Conakry mentioned earlier showed that the better the quality of care, the

more the confidence in the scheme, and the better the enrollment<sup>21</sup>.

#### CONCLUSION AND RECOMMENDATION

This study has shown that although **75% of Olowora community members were aware** of the existence of the community health insurance scheme operating within their locality; **only 49.5% of them had good knowledge of the scheme.** **Lack of information alone accounted for 45.6%** of the reasons for **non enrollment.**

It was found out that close to half of respondents do not really believe in contributing money for illness yet to come, and majority of such respondents prefers to pay for their health care when they fall ill.

Lack of money was the main reason why some enrollees had not paid their premium up to date.

The scheme management should critically evaluate its sensitization programmes to increase the level of knowledge about the scheme in the community. The scheme managers must tailor their marketing strategies to cater for the poor. Further research is however needed on how to scale-up and replicate the schemes, and on how to link them to other social risk management instruments such as microfinance institutions.

#### REFERENCES

1. WHO. The World Health Report. Health Systems: measuring performance. Geneva: 2000 World Health Organisation. Accessed 24/12/2013.
2. Federal Ministry of Health, Abuja; Revised National Health Policy document. 2004.p.2. Accessed 20/5/2013.
3. Federal Ministry of Health, Abuja. Nigeria National Health Financing Policy document 2005. Accessed 24/12/2013.
4. World Health Organisation; National Health Accounts. 2000. Accessed 20/05/2013.
5. **Ramani K.** Indian Institute of Management. Health Insurance in India: Opportunities, challenges and concerns. 2000. Accessed 24/12/2013.
6. **Ranson K, Acharya A.** Insurance offered by NGOs/Community-based Health Insurance: International Labour Office Universities Programme. 2003. Accessed 20/5/2013.
7. **Steketee RW, Nahlen BL, Parise ME, Menendez C.** The burden of malaria in pregnancy in malaria-endemic areas. *Am J Trop Med Hyg* 2001; 64(1-2 Suppl): 28-35.
8. **Lengeler C.** Insecticide-treated nets for malaria control: real gains. *Bulletin of the World Health Organization*, 2004; 82(2): 84.
9. **Choi HW, Breman JG, Teutsch SM, Liu S, Hightower AW, Sexton JD.** The effectiveness of insecticide-impregnated bed nets in reducing cases of malaria infection: a meta-analysis of published results. *Am J Trop Med Hyg* 1995; 52(5): 377-3782.

*Ibukun OA, et al*

10. **Hill J, Lines J, Rowland M.** Insecticide-treated nets. *Adv Parasitol* 2006; 61: 77–128.
11. Federal Ministry of Health. Malaria control in Nigeria: A strategy for behavioural change communication. Abuja: FMOH; 2004. p. 1–16.
12. National Population Commission (NPC) [Nigeria] DHS Malaria Indicator Survey(MIS)Data Set Records 2010. Available at <http://ghdx.healthmetric.org/series/dhs-malaria-indicator-survey-mis>. Retrieved 25/9/2013.
13. **Adeyemi AS, Adekanle DA, Akinola SE.** Use Prevalence of Insecticide-Treated Mosquito Bednets Among Pregnant population in Osogbo, Nigeria. *Niger Med Pract* 2007; 52(2): 29–32.
14. **Wagbatsasoma VA, Aigbe EE.** Insecticide-Treated Nets Utilization among Pregnant Women attending Ante natal Clinic in Estako West LGA, Edo State.Nigeria. *Niger J Clin Pract* 2010 Jun; 13(2): 144–148.
15. **Omo-Aghoja LO, Aghoja CO, Oghagbon K, Omo-Aghoja VW, Esume C.** Prevention and treatment of Malaria in Pregnancy in Nigeria: Obstetricians Knowledge of guidelines and policy changes- a call for action. *J Chinese Clin Med* 2008; 31(21): 114–115.
16. **Van Eijk AM, Hill J, Alegana VA, Kirui V, Gething PW, Ter Kuile FO, Snow RW.** Coverage of Malaria protection in pregnant women in Sub-Saharan Africa: a synthesis and analysis of national survey data. *Lancet Infect Dis* 2011; 11(3): 190–207.
17. US Global Health Policy: The Global Malaria Epidemic, 2010 June Fact sheet. Available at <http://globalhealth.kff.org>. Accessed 08/03/2011.
18. **Erlanger TE, Enayati AA, Hemingway J, Mshinda H, Tami A, Lengeler C.** Field issues related to effectiveness of insecticide-treated nets in Tanzania. *Med Vet Entomol* 2004; 18: 153–160.
19. Federal Ministry of Health, Nigeria. National guidelines and strategies for malaria prevention and control during pregnancy, 2004: pp. 11–13.
20. FCT administration. Facts about Abuja. 2011. Available at [http://fct.gov.ng/index\\_7732.html?option=com\\_content&view=article&id=45&Itemid=87](http://fct.gov.ng/index_7732.html?option=com_content&view=article&id=45&Itemid=87). Retrieved on 23/9/2013.
21. **Olayemi SO, Oreagba IA, Mabadeje AF.** Knowledge and practice of the use of insecticide treated nets among mothers in Lagos Nigeria. *Nig Q J Hosp Med* 2004; 14(2): 181–184.
22. **Enato EFO, Okhamafe AO, Okpere EE.** A survey of knowledge, attitude and practice of malaria management among pregnant women from two health care facilities in Nigeria. *Acta Obstet Gynaecol* 2007; 86: 33–36.
23. **Ganiyu AS, Adekunle DA, Omotosho IM.** Awareness and use of Insecticide Treated Nets among women attending Antenatal clinic in a Northern State of Nigeria. *J Pak Med Assoc* 2009; 59(6): 354–358.
24. **Abasiattai AM, Etukumana EA, Umoiyoho AJ.** Awareness and practice of Malaria Prevention Strategies among Pregnant women in Uyo, South-South Nigeria. *Internet J Obstet Gynecol* 2009; 11(1).
25. **Eisele TP, Keating J, Littrell M, Lersen D, Macintyre K.** Assessment of insecticide-treated nets use among Children and pregnant women across 15 countries using standardized National surveys. *Am J Trop Med Hyg* 2009; 80(2): 209–214.