Sudan Journal of Medical Sciences
Volume 12, Issue no. 1, DOI 10.18502/sjms.v12i1.854
Production and Hosting by Knowledge E

Research Article

Knowledge, Practice, and Willingness to Participate in Community Health Insurance Scheme among Households in Nigerian Capital City

Aderibigbe S. Adedeji, Aganaba Doyin, Osagbemi G. Kayode, and Aderibigbe A. Ayodele

Department of Epidemiology & Community Health, Faculty of Clinical Sciences, University of Ilorin

Abstract

Background: Health insurance is a social security system that guarantees the provision of needed health services to persons on the payment of token contributions at regular intervals. The objective of the survey was to determine knowledge, practice, and willingness of households in Nigerian Capital City to pay and participate in Community Health Insurance Scheme.

Materials and Methods: This descriptive and analytical cross-sectional study was carried out using the multistage cluster sampling technique to obtain data from 300 selected household heads or main financial decision makers. The data was analyzed using EPI-INFO software package. Statistical significance of $p < 0.05$ and confidence limit of 95% was used.

Results: The major findings showed that the level of awareness (13%) concerning Community Health Insurance (CHI) was found to be very low among the respondents. The general principles of CHI were also poorly understood by the respondents. Attitude to the programme was positive as many showed interest in participating and enrolling themselves (97.0%), some family members (96.3%) and entire family members (90.3%). Borrowing money to settle medical bills in this study has occurred in 30% of instances. Majority of respondents were willing to pay premiums ranging from N450 (96.6%) to N1200 (72.5%) for simple packages that do not include surgery and hospitalization.

Conclusions: The community members were willing to participate and enrol if the programme is brought to them. There is a need to adequately subsidize the premiums that respondents were willing to pay in order to meet up with the cost of treatment.

Keywords: Willingness, Participate, Community Health Insurance

Corresponding Author:
Aderibigbe S. Adedeji; email: tayonov23@yahoo.com

Received: 15 December 2016
Accepted: 20 February 2017
Published: 28 May 2017

Production and Hosting by Knowledge E

Editor-in-Chief:
Prof. Mohammad A. M. Ibnouf

OPEN ACCESS

الملخص

الخلفية: التأمين الصحي هو نظام الضمان الإجتماعي الذي يضمن توفير الخدمات الصحية اللازمة للأشخاص مقابل دفع مساهمات رمزية على فترات منتظمة. وكان الهدف من هذه الدراسة الإستقصائية هو تحديد المعرفة والممارسة ورغبة الأسر في العاصمة النيجيرية للدفع والمشاركة في نظام التأمين الصحي المجتمعي.

المواد والطرق: أجريت هذه الدراسة المقطعية التحليلية الوصفية بإستخدام تقنية أخذ العينات العنقودية متعددة المراحل للحصول على بيانات من ٣٠٠ من أرباب الأسر المختارة أو صناع القرار الماليين الرئيسيين. تم تحليل البيانات بإستخدام حزمة البرنامج إيبي-إنفو. وتم استخدام الدلالة الإحصائية p <٠،٠٥ و حد الثقة ٩٥٪.

النتائج: أظهرت النتائج الرئيسية أن مستوى الوعي بشأن التأمين الصحي المجتمعي كان منخفضاً جداً بين المستجيبين (١٣٪). كما أن المبادىء العامة للتأمين الصحي المجتمعي كانت غير مفهومة أيضاً من قبل المجيبين. وكان الموقف من البرنامج إيجابيا حيث أبدى الكثيرون اهتمامهم بالمشاركة وتسجيل أنفسهم (٩٧،٠٪) وبعض أفراد الأسرة (٩٦،٣٪) وأفراد العائلة بأكملهم (٩٠،٣٪). إقتراض المال لتسوية الفواتير الطبية في هذه الدراسة قد حدث في ٣٠٪ من الحالات. وكانت غالبية المستجيبين على إستعداد لدفع أقساط تتراوح بين ٤٥٠ N (٩٦،٦٪) إلى ١٢٠٠ N (٧٢،٥٪) للحزم البسيطة التي لا تشمل الجراحة والإستشفاء.

الإستنتاجات: كان أفراد المجتمع على إستعداد للمشاركة والتسجيل إذا تم جلب البرنامج لهم. وهناك حاجة إلى تقديم الدعم الكافي للأقساط التي كان المستجيبون على إستعداد لدفعها من أجل مواكبة تكاليف العلاج. يجب إختيار طرق الإسترجاع المناسبة والمناسبة بشكل فردي لكل مستقبل.

1. Introduction

Healthcare delivery remains one of the most important basic social services any government or organisation can render to its people. Public health system in Nigeria is characterised by low funding, poor motivation of health workers and inequitable access to health [1]. Although the Federal Government of Nigeria has estimated that public funding of health is 1-2 % of national gross domestic product (GDP), this figure falls very much below the World Bank's estimate of 0.3 % of GDP for the period 1990-1996 [2, 3]. These estimates are even much lower than the 2.6 % average observed for sub-Saharan Africa, and the 15 % recommended by the World Health Organization [4].

In Nigeria, about 70% of the population reside in the rural areas [5]. Similarly, only about 60% of rural dwellers have access to health care, which is mainly of a poorer quality of care than what obtains at the urban centres [6]. Access to health care has

been greatly reduced for the poor households due to their low purchasing power evidenced by their earning and expenditure patterns. This is because the predominant health care financing mechanism in Nigeria has been the out of pocket option. To get round this problem and safeguard the rural poor from the catastrophic nature of health financing, prepayment schemes and community-based insurance schemes have been advocated [5, 7, 8].

Community-based health insurance (CBHI) schemes attempt to bridge the gap between increasing health needs and scarce resources in poor communities as well as providing protection for the most vulnerable groups through cross-subsidization. However, these schemes are often initiated without strong empirical information that can help to benchmark cost-sharing potentials and other forms of participation of households in the community.

Previous studies have reported varying levels of willingness to pay (WTP) for a CBHI; Onwujekwe et al. reported a WTP of between 3.6% - 38% among their respondents in the South eastern part of Nigeria [9], Bamidele et al. in the South western part of Nigeria reported a WTP of 82.4% among artisans [10]. In Ethiopia, Haile et al. reported a WTP of 78% among their respondents [11] while Ahmed et al. in Bangladesh reported a WTP of 86.7% [12]. Age, gender, socioeconomic status and place of residence have been identified in previous studies as determinants of WTP, [9, 10].

This descriptive and analytical cross-sectional study was therefore carried out to assess the knowledge and practice of household heads in Federal Capital Territory (FCT) communities on Community Health Insurance Schemes, determine willingness to pay; and identify the major factors that can influence willingness of households in FCT communities to pay and participate in a Community Health Insurance Scheme.

2. Materials and Methods

The study area consists of the 6 area councils of the FCT. The area councils are similar in population sizes but different with regards to socio-demographic characteristics. Using Fischer's formula, a sample size of 223 was calculated using a previous study with prevalence of willingness to participate in a community health insurance scheme of 82.4% [10]. The sample size was adjusted to 300 household heads to cater for non-response and to increase the power of the study.

Multistage sampling technique was adopted for the study. One community was selected from each of the area councils using simple random sampling by balloting, making a total of 6 communities used for the study. Cluster sampling technique was adopted to select 50 households in each of the selected communities. At the household level, any person recognised by other residents as the household head or the major financial decision-maker and who gives consent to participate was interviewed. A pre-tested interviewer-administered semi-structured questionnaire was used in this

Variables	Freq (%)
Aware of CHI	
No	261 (87.0)
Yes	
Source of Information	39 (13.0)
Radio	
Friends	
Television	18 (46.2)
Community Members	
School	8 (20.5)
Family Members	7 (17.9)
Knowledge of CHI	3 (7.7)
Principles	2 (5.1)
Pooling of pre-paid funds	1 (2.6)
Dynamic mutual aid	
Targets the informal sector	8 (20.5)
Not-for Profit	3 (7.7)
Community Participation	8 (20.5)
	7 (17.9)
	13 (33.4)

Table 1: Knowledge of CHI among Respondents.

survey. The questionnaire was designed to elicit information on the knowledge, attitude, and willingness to pay and participate in a community health insurance scheme from the household heads in the study area. Questionnaires with inconsistencies were returned to the communities for revalidation by supervisors. The data obtained were sorted out, edited and coded before being fed into the computer for statistical analysis using the EPI-INFO 2000 software package version 3.5.2. Data analysis was done using both descriptive and inferential statistics. The data was analyzed using EPI-INFO software package. Statistical significance of $p < 0.05$ and confidence limit of 95% was used. Descriptive statistics such as mean, frequency and percentages were used in the presentation of results.

3. Results

Most (30.5%) respondents had at least primary education while 18.0% had no formal education. Almost all (95%) respondents earned a living one way or the other while 5% did not have any income. The monthly income of respondents ranged between 10000 and 167000 naira with a mean of 33600 naira. Majority (61.5%) of the respondents without income survived mainly on their spouses, 23.1% on parents while 7.7% equally depended on friends and the government.

Most (87%) of the respondents were not aware of community health insurance while 13% of them had heard of community health insurance before. The main sources of information were the radio (46.2%), friends (20.5%), television (17.9%), community members (7.7%), the school (6.0%) and family members (3.0%). The percentage level of awareness for the principles known as a characteristic of CHI by respondents includes Pooling of pre-paid funds (20.5%), Dynamic mutual aid (7.7%), Targets the informal sector (20.5%), not-for-profit (17.9%) and Community Participation (33.4%) (Table 1). The household health expenses (including hospital bills, drugs, chemists, and traditional healers) in the preceding year ranged between 0 to N350000 with a mean of N35536 and mode of N10000. The main methods of paying health bills were out of pocket (97.6%), NHIS (1.0%) while other sources accounted for 1.4% (Table 2).

Ever borrowing money to pay health bills occurred among 30% of respondents with the mean amount borrowed ranging from N500 to N135000 and a mean of N19583. Money was mostly (93.7%) borrowed from friends with relatives and cooperatives accounting for 3.0% and 3.3% respectively. Ever sold personal items to pay hospital bills occurred among 26.7% of respondents (Table 2) with 23.2% of them having done so in the preceding one year.

Close to half (44.2%) of respondents' household members had been ill but did not seek medical attention from modern health facilities at one time or the other in the previous year. The main reasons for not seeking care were that the illness was not perceived as serious (98.5%) and lack of money (90.0%).

Few (6.7%) of the respondents' household members currently had any form of health insurance as at the time of the study. Almost all (97.0) of respondents were willing to enrol themselves and most (90.3%) were willing to enrol their entire household members if offered community health insurance. For those not willing to enrol, the main reasons were lack of awareness (51.7%) and general lack of interest (27.7%). (Table 3). Majority of respondents were willing to pay premiums ranging from N450 (96.6%) to N1200 (72.5%) for simple packages that do not include surgery and hospitalization. Educational level and gender were significant factors influencing the knowledge and awareness of the respondents. ($p<0.05$) (Table 4).

4. Discussion

The level of awareness (13%) concerning Community Health Insurance (CHI) was found to be very low among the respondents. This is expected considering the fact that the programme was just at its initial stages in the FCT at the time of this study. The general principles of CHI were also poorly understood by the respondents as none of the principles was known by more than 33.4% of respondents. This finding is comparable to a study in Uganda where majority (64.5%) of insured persons had poor knowledge of community health insurance [13].

Respondent has a source of income (Freq, %)	
Yes	285 (95.0)
No	15 (5.0)
Monthly Income (Range; Mean)	10000 – 167000; 33600
Household Health Expenses in preceding year (Range; Mean)	0 – 350000; 35536
Method of Paying Health Bills (Freq, %)	
Out of Pocket	293 (97.6)
NHIS	3 (1.0)
Others	4 (1.4)
Ever Borrowed Money to pay Health Bills (Freq, %)	
Yes	90 (30.0)
No	210 (70.0)
Amount Borrowed (Range; Mean)	500 – 135000; 19583
Money Borrowed From (Freq, %)	
Friends	281 (93.7)
Relatives	9 (3.0)
Cooperative	10 (3.3)
Ever Sold Personal Items to pay Hospital Bills (Freq, %)	
Yes	80 (26.7)
No	220 (73.3)
Premium Respondents are Willing to Pay (Range; Mean)	450 – 1200

Table 2: Household Health Expenses Pattern.

Variables	Freq (%)
Has Any form of Health Insurance	
Yes	20 (6.7)
No	280 (93.3)
Willing to Enrol Self in CHI Scheme	
Yes	291 (97.0)
No	9 (3.0)
Willing to Enrol Some Family Members in CHI Scheme	
Yes	289 (96.3)
No	11 (3.7)
Willing to Enrol Entire Household in CHI Scheme	
Yes	271 (90.3)
No	29 (9.7)
Reason For Not Willing to Enrol in CHI Scheme	
Don't know health insurance	15 (51.7)
Just not interested	8 (27.7)
No trust in insurance	3 (10.3)
Money is lost if not sick	3 (10.3)

Table 3: Distribution of Respondents by Willingness to Enrol in CHI Scheme.

Variables compared	P Values
Earning a living and level of interest in insurance	0.97
Educational level and awareness	0.00
Earning a living and selling of household items to pay health bills	0.19
Having a member of the household with insurance and level of awareness	0.11
Gender and level of awareness	0.00
Marital status and the level of interest	0.95
Rural urban differential and awareness	0.10
Area councils and level of awareness	0.44
Area councils and level of interest	0.03

Table 4: Factors influencing Knowledge and Practice of respondents about CHI.

Among those that were aware, radio was reported as the main source of information compared to television and community members. Thus the radio would be animportant strategy for subsequent population-based IEC in the area. There is thus a need for large scale Information, Education and Communication (IEC) programme through social marketing in the area prior to and during commencement of CHI.

After the interviewers explained the CHI and its principles, the general attitude to the programme was positive as many showed interest in participating and enrolling themselves (97.0%) and entire family members (90.3%). The positive disposition of most respondents is a good finding that would enhance programme success in the area. Whether these translate to actual enrollment would be demonstrated during subsequent intervention and enrollment programmes. For those not showing interest, the main reason was given to be the fact that they did not yet know about CHI and just lack of general interest. In a study carried out in South East Nigeria, less than 40 percent of urban and 7 percent of rural households were willing to pay for Community-based health insurance membership both for themselves and other members of the households [9]. The need to increase the level of IEC is therefore further supported by these findings.

Selling of household assets is one of the cushioning effects to offset medical bills [13]. This practice has ever occurred in 26.7% of respondents in this study with 23.2% having done so in the preceding one year. In a Ugandan study, about 55% of respondents ever sold household assets to pay medical bills [13]. CHI is expected to reduce the practice of having to sell household assets to pay medical bills. It is also common in the Nigerian environment to have to borrow money to settle medical bills which has occurred in 30% of instances in this study with the amount borrowed ranging from N500 to N135000 and a mean of almost N20000 mainly (93.7%) borrowed from friends. These practices are likely to reduce if CHI is effectively imbibed and provided in the various communities.

Majority of respondents were willing to participate in the CHI and willing to pay premiums ranging from N450 (96.6%) to N1200 (72.5%) for simple packages that

do not include surgery and hospitalization. For packages that include surgery and hospitalization, the premium the respondents were willing to pay ranged between N50 to N4000 with a mean of N1200. The most frequently acceptable amount for non-surgical package was N1000 and for surgery, it was N1500. The implication of this for the programme is the need to find a way to subsidise these amounts and based on the principle of pooling of financial resources, this should be workable. The final premium to be paid would, however, be subject to the policy of the FCT administration but these figures are useful guidelines.

The community members were willing to participate and enrol if the programme is brought to them, with most of them willing to make financial contributions in favor of themselves and family members. The respondents health expenditure were being mainly met from out of pocket means and are most likely to benefit from subsequent CHI programmes that will conserve household funds for other socio-economic ventures. There is a need to adequately subsidize the premiums that respondents were willing to pay in order to meet up with the cost of treatment through relevant collaborations and government allocations.

Education and gender were the variables found to exert significant effects on the respondents' knowledge and practice towards CHIS. Onwujekwe et al. also reported similar factors as predictors of WTP among respondents in their study in South eastern region of Nigeria [9]. Bamidele et al. also elicited that educational status of respondents was a key predictor of their practice towards CBHI scheme in the South western region of Nigeria [10]. Angel-Urdinola et al. concluded in their study that most household decisions in most African settings are usually affected by gender to the advantage of men and that men are usually the de facto head of household [14]. It was also reported that educated decision makers are more likely to take favorable decisions concerning the household than non-educated ones [14]. It is therefore not surprising that this present study which is also in an African setting seems to agree with the results from these other studies [9, 10, 14]. The implication of these findings is that socio-demographic variables influence the Knowledge and Practice of respondents with regards to CHI and should, therefore, play a role in the implementation of CHI in the FCT.

5. Conclusion

It is therefore concluded that the level of awareness to CHI in FCT is low with a need to implement subsequent community-based IEC using available social marketing strategies to stimulate community level awareness and knowledge of CHI in the FCT. The respondents demonstrated positive attitude and acceptance towards CHI and were committed to subsequent implementation of the programme. There is thus a need to enhance this trend by subsequently implementing the programme in the FCT.

6. Conflict of Interest

None of the authors has any conflict of interest to disclose.

7. Ethical Consideration

We confirm that we have read the Journal's position on issues involved in ethical publication and affirm that this report is consistent with those guidelines.

8. Authors Contribution

- Aderibigbe SA - Analysis and interpretation of data, drafting and revision of final manuscript for publication and funding.
- Aganaba D - Study concept and design, collection of data and funding.
- Osagbemi GK - Study concept and design, collection of data, drafting and revision of final manuscript for publication and funding.
- Aderibigbe AA - Collection of data, drafting and revision of final manuscript for publication and funding.

References

[1] T. Hodges, NNP Commission, and UNC Office, Childrens and womens rights in Nigeria: a wake-up call?: situation assessment and analysis, National Planning Commission, 2001.

[2] Consultative Group on Nigeria, Federal Government of Nigeria. Nigeria Economic Policy and Strategy: The Way Forward. 2000.

[3] V. Verbeek-Demiraydin, "African development indicators, 2000," The World Bank, 1999.

[4] D. K. Zschock, "General review of problems of medical care delivery under social security in developing countries," International Social Security Review, vol. 35, no. 1, pp. 3–16, 1982.

[5] F. Godlee, "The World Health Organisation: WHO at country level – a little impact, no strategy," BMJ, vol. 309, no. 6969, pp. 1636–1639, 1994.

[6] C. Atim, F. Diop, J. Ette, D. Evrard, and P. Marcadent, The contribution of mutual health organizations to financing, delivery, and access in health care in ... | POPLINE.org. POPLINE. 2001. http://www.popline.org/node/531502 (accessed Jan 6, 2017).

[7] I. Ogunbekun, Health insurance: a viable approach to financing health care in Nigeria? John Snow Inc, Arlington, VA, 1996.

[8] H. Dong, B. Kouyate, J. Cairns, F. Mugisha, and R. Sauerborn, "Willingness-to-pay for community-based insurance in Burkina Faso," Health Economics, vol. 12, no. 10, pp. 849–862, 2003.

[9] O. Onwujekwe, E. Okereke, C. Onoka, B. Uzochukwu, J. Kirigia, and A. Petu, "Willingness to pay for community-based health insurance in Nigeria: Do economic status and place of residence matter?" Health Policy and Planning, vol. 25, no. 2, pp. 155–161, 2010.

[10] JO Bamidele and WO Adebimpe, "Attitude and Willingness of Artisans in Osun State Southwestern Nigeria to Participate in Community Based Health Insurance," J Community Med Prim Health Care, no. Participate, p. 24, 2012.

[11] M. Haile, S. Ololo, and B. Megersa, "Willingness to join community-based health insurance among rural households of Debub Bench District, Bench Maji Zone, Southwest Ethiopia," BMC Public Health, vol. 14, no. 1, 2014, article no. 591.

[12] S. Ahmed, M. E. Hoque, A. R. Sarker et al., "Willingness-to-pay for community-based health insurance among informal workers in urban bangladesh," PLoS ONE, vol. 11, no. 2, Article ID e0148211, 2016.

[13] L. Manje, Client Satisfaction with Health Insurance in Uganda. 2007; published online Jan. http://www.microfinancegateway.org/library/client-satisfaction-health-insurance-uganda.

[14] D. Angel-Urdinola and Q. Wodon, "Income Generation and Intra-Household Decision Making: A Gender Analysis for Nigeria," in in. Gender Disparities in Africas Labor Market, illustrated. World Bank Publications, p. 420, 420, 2010.