Willingness to Pay For Community Health Insurance and its Determinants among Household Heads in Rural Communities of Ilorin South Local Government Area

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Abstract
Background: Willingness to pay data are rarely collected or used as part of designing health insurance schemes in developing countries. The objective of this study was to assess household heads’ willingness to pay for community health insurance and its determinants in rural communities of Ilorin South Local Government Area of Kwara State.

Methodology: It was a descriptive cross-sectional study carried out among household heads in rural communities of Ilorin South Local Government Area of Kwara State. Sample size of 360 was determined using Fishers formula and multistage sampling technique was used to select respondents. Semi structured interviewer administered questionnaire was used and data analysis was done using Epi-info version 3.4.1. Frequency tables and cross-tabulations were generated with a p-value pre-determined at less than 0.05.

Results: The mean Willingness to Pay was 522.0 ± 266.3 Naira and the allowable range for fixing premium is between 250 naira and 1,200 naira. The factors that affect Willingness to pay were age, sex, educational attainment, income, household size, and past health expenditure of household heads.

Conclusion: The amount of premium that should be fixed for Community Health Insurance in these rural communities should range between 250 naira to 1,200 naira and a mechanism should be worked out such that there will be differential payment based on the age, sex, educational attainment, income, and household size in the registration for Community Health Insurance.

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1. Introduction

In the absence of real world experience, economists gauge the willingness to pay (WTP) for health insurance in low income countries by means of contingent valuation (CV) methods which elicit directly what individuals would be willing to pay for a hypothetical health insurance package. In Nigeria for example, enrolment in some Community Health Insurance (CHI) have been low with small average premiums because of a lack of study on Willingness to pay before such schemes took off. Some studies reveal that households in rural areas do not readily accept the idea of paying for services they might not use with regard to health care, some other studies reveal the opposite. Likewise, communities where WTP was not carried out before the scheme revealed a high drop-out rate, but this was not case where it was done. Studies in Iran and India revealed that households are willing to pay 3USD and 15 USD respectively per household per month, however in Nigreia, Namibia and China individuals are willing to pay between 1.5-7USD per person per month.

Several factors have been implicated to influence WTP for CHI. Male gender, younger age group, higher socioeconomic status and higher educational level tend to influence WTP for CHI positively and this was demonstrated in various studies in Ghana, Namibia, Tanzania and Nigeria. Other factors are household size, level of trust in those organizing the scheme, previous history of being involved in health insurance and history of large amount spent Out of pocket (OOP) for health. Whilst previously paying OOP was negatively related to WTP, previously paying for health care using health insurance mechanism was positively related to it. The objective of this study was to assess household heads’ willingness to pay for community health insurance and its determinants in rural communities of Ilorin South Local Government area of Kwara state.

2. Methodology

The study was carried out in rural areas of Ilorin South Local Government Area, Kwara state, Nigeria. It was a descriptive cross-sectional study carried out among household heads in rural communities of Ilorin South Local Government Area of Kwara State. Sample size of 360 was determined using Fishers formula and multistage sampling technique was used to select respondents. Semi structured interviewer administered questionnaire was used and data analysis was done using Epi-info version 3.4.1. Frequency tables and cross-tabulations were generated with a statistical significance p-value pre-determined at less than 0.05.

3. Result

Three hundred and sixty household heads were interviewed. The age distribution of respondents ranged from 20 to 75 years while the mean age of household heads interviewed was 42.88 ± 12.90. Larger proportion of household heads were males, they accounted for 303 out of 360 (84.2%) respondents.
The mean amount respondents were willing to pay was 522.0 ± 266.3 Naira per annum per household member (3.26 ± 1.66 US Dollars). Those willing to pay were 313(87.0%) and the allowable range for fixing premium is between 250 Naira and 1,200 Naira (1.56 ± 7.50 US Dollars) per annum per household member. The factors that affect Willingness to pay were age, sex, educational attainment, income, household size, and past health expenditure of household heads.

**Discussion**

The mean WTP per person per annum was found out to be 522.0 ± 266.3 naira (3.48 ± 1.78 US dollars). In Eastern Nigeria, Onwujekwe et al \(^{14}\) found a WTP of 250 naira per month per person in rural communities for CHI. This is an equivalent of 3,000 naira per person per year. This disparity may be because of the difference in geo-political area and cost of living in both locations. In Burkina Faso, \(^{18}\) the mean WTP was found to be 4.27 US dollars. Another similar survey by Dong et al in Burkina Faso \(^{19}\) showed mean WTP of 13 US dollars per household per annum for CHI in a community with average household size of 8 members. This translates to 1.6 US dollars per person per year. This is also similar to the finding from this study which revealed a mean WTP of 3.48 ± 1.78 US dollars.

Another study in India the median WTP for health insurance is the equivalent of 15 US Dollars per household per month.\(^{7,10}\). This disparity could be because this WTP was elicited per household instead of per person as was done in this survey.

The result of this study revealed that females had a higher mean WTP than males and this was statistically significant. This is at variance with other findings where it was noted that males were willing to pay higher amounts for insurance than females in two different communities in Nigeria and in Ghana.\(^{14-16}\) but younger age group, higher socioeconomic status and higher educational level tend to influence WTP for CHI positively and this was consistent with studies in Ghana, Namibia, Tanzania and Nigeria.\(^{2,12-16}\)

5. **Conclusion**
The mean WTP $522.0 \pm 266.3$ Naira (3.26 $\pm$ 1.66 US Dollars) and the allowable range for fixing premium are between 250 naira and 1,200 Naira (1.56 $\pm$ 7.50 US Dollars).

References