INTRODUCTION
In many countries, governments are finding it difficult to allocate sufficient resources to the health sector due to resource constraints, the emergence of new communicable and non-communicable diseases, increase in population, etc. To overcome this, alternative financing in the health sector such as the voluntary sector, involvement of local governments, promotion of public-private mix, cooperative health care or other institutional mechanisms are being encouraged by the governments in some countries. Yet, fears are sometimes expressed, particularly in developing countries, that economic reforms in the form of liberalisation, privatisation and globalisation, primarily focus on the economic objectives of efficiency of resource allocation and hence, the social objectives of distributive equity and social development are likely to remain on the back seat; Panchamukhi and Nayanataram (2006).

Similarly, most low-income countries have not been able to fulfil the healthcare needs of the poor, and especially that of the poor rural population. Shrinking budgetary support for health care services, public health provision inefficiency, unacceptably low quality of public health services, and the resultant imposition of user charges bear testimony to, and are reflective of the states inability to meet the healthcare needs of the poor, Wiesmann and Jutting (2001).

In 1988, the World health assembly decided that the main social target of governments and the World Health Organization (WHO) should be the attainment by all the people of the world by the year 2000 of a level of health that would permit them to live a socially and economically productive life. Thus, as a minimum, all people in all countries should have at least such a level of health that they are capable of working productively and participate actively in the social life of their communities (WHO, 1997). According to a WHO director-general before the WHO Executive Board in January 1992, "Health for all means not only health for all people, but also health during each phase of an individual life cycle."

In the 1980s, the economic recession and its effect on the quality of life in non
industrialized nations brought into focus the necessity for public health issues to be presented in developmental policies Chukwuma (1994).

In Nigeria, attempts in the past has focused on issues relating to the provision of health care facilities, particularly for the poor, keeping in mind the characteristic features of health, thus, calling for involvement of the collective or public sector in its supply. However, the limited health care facilities that exist in rural Nigeria make it difficult to provide the required good quality health care services, Onwujekwe et al (2005). In many cases, there is often lack of government monitoring; making quality healthcare provision all the more limited, Brieger et al (2004).

According to FOS (2001), in Nigeria less than 6% of the population have access to modern health care services, suffice to say that health care delivered in Nigeria is in shame and much serious effort needs to be exhibited by everyone involved in the health sector because it has taken many years of gross neglect, inadequate funding, poor management of limited facilities and resources, social depreciation and economic depression of the people who have become underprivileged and deprived of their due share to enjoy good health. Furthermore, health care services are often unavailable in smaller, isolated communities, and many Nigerians from rural locations or predominantly indigenous communities have limited access to health care. In addition, public facilities are generally inferior to private ones, but private care is too expensive for most Nigerian households.

According to Feldstein (1988), demand for health is generally income elastic. Similarly, access to healthcare services is also found to be income elastic. In a regional perspective, demand for and access to health seem to be elastic with respect to the region’s level and rate of economic development. Since most of the estimates of health care spending have exceeded unity (that is elasticity of >one), health care is considered as a deemed luxury good, at least for the developing countries. It is also worth noting that health confers both private and social benefits. Opportunity costs of health are generally fairly high, particularly for low-income households. Costs of maintaining health and avoidance costs of ill health are too high to be overlooked, (Panchamukhi and Nayanataram, 2006).

Since the majority of agricultural labourers are mostly located in rural areas, they are more likely to be deprived of the necessary benefits of health care facilities. Health care facility mapping for rural and urban areas in different states of the country has revealed how the facilities get clustered in urban areas disproportionately to the population, mostly the rural dwellers, (Blomqvist and Carter, 1997). Persistently low quality and inadequacy of health services provided are some of the problems facing the health sector in Nigeria, (Ogunbekun et al 1999). This has led to an increased level of financial barriers wherein only a very low volume of revenues can be mobilized for payment of health services, from these poor communities, (Jakab and Krishna, 2001).

Recent studies have also shown that in the rural Nigeria, about two thirds of expenditure of households is on food alone leaving little or nothing on other utilities, especially on healthcare. Less than 10% of the population has access to essential drugs with only fewer than 30 physicians per 100,000 people NEEDS document (2004). Also the problems of rising costs, combined with scarce resources, have weakened the ability of the public sector to provide quality healthcare service. Of concern is the persistent under – funding, inadequate procurement and storage of drugs and equipment and inadequate numbers of health workers are some of the problems facing the health sector in Nigeria, especially in the rural areas. Moreover, many governments have encouraged the development of the private sector and various alternatives are being tested. In some countries, such as Kenya and also Nigeria, large numbers of health workers
have moved to the private sector, to start small clinics - even in rural areas. Thus, providing high-quality primary health care is acceptable to low income/rural dwellers population in Nigeria, but policy makers must understand and respect the households’ needs, status, attitudes, concerns and providers choice. These households’ behaviour are in turn affected by personal, social and cultural factors, since it will lead to improved satisfaction, continue and sustained use of services, and improved health outcomes.

However, with the rate at which the government have been trying to make sure there is easy access to health care services, there is still the problem of people not getting adequate access to health facility. The health authorities thus have an enormous task in bringing health and health care measures within the reach of the average Nigerian because several man-hour losses occur due to morbidity.

From all these points of views, health is considered in public finance literature as a merit goods, implying that it is so meritorious from the point of view of social welfare that issues of its provision cannot be left to the decision making of the individual or private sector alone but, need to be considered by the collective or public sector as well. Thus, understanding the main determinant of health care demand behaviour can be vital in furthering the knowledge of how changes in government policy will impact on individuals and their demand for health care services.

The general objective is to analyse the willingness to pay for healthcare services in the study area. While the specific objectives include:

1. To examine rural household use of healthcare with respect to their socioeconomic characteristics.
2. To examine the type of health problem the people are prone to.
3. To establish the factors responsible for rural dwellers’ willingness to pay for healthcare services.

METHODOLOGY

The study area is Akinyele Local Government Area (LGA) of Oyo State, Nigeria. It lies on the Latitude 7.70 N and Longitude 3.80 E of the equator. Moniya is the headquarter of the LGA and is about 19 kilometre to Ibadan municipal. It is about 4 km from the International Institute of Tropical Agriculture (IITA). The Ibadan – Oyo highway passes through the Local Government and it’s about 10km from Ibadan. It has a land area covering of 2161km2N and a total population of 211359 (www.nigerianstat.gov.ng). The population consist of old people, school children and also able bodied men and women who are directly involved in farming activities. The main activity in Akinyele Local Government is largely small scale subsistence farming with other non-farming activities. The area is heterogeneously dominated by the Yorubas, and other tribes like Igbos, Hausa, Fulani’s, and Kalabari’s especially at the Ojoo and Sasha end. The dwellers consist of the civil servants, traders whose business activities are buying and selling of different types of goods. It is a peri-urban area where most of the dwellers are part time farmers. The various villages covered include Ajibode, Ojoo, Moniya, Alagba, Alabata, Akinola, Balogun, Shasa, Ibi-Ose, Otun Agbakin, Atan, Ikereku etc.

The sample unit for this study was rural households and based on primary data source, simple random technique was employed in proportion to population size of the selected villages. The structured questionnaire was the main research instrument used for the collection of data from the rural households. Both interview schedule (for illiterates) and questionnaires were administered to select about 250 respondents. However, 200 valid respondents were used in the final analysis after data clean-up. The information obtained include their socio-economic characteristics, choice of health care service, type of health facilities and other variables affecting Willingness to Pay (such as cost,
availability, level of satisfaction about conditions of health service available to them and their willingness to pay more if the conditions were improved) of the respondents for prepaid health care services of rural households.

The analytical techniques used in this study include descriptive statistics such as frequencies, means, percentages and tables. Also econometric analysis using probit regression model was applied. In this model (probit), the willingness to pay for health care service represents the dependent variable (Y). The probit model was estimated with the assumption that Y, the willingness to pay of rural households for health care service is related to the following variables, explicitly stated as:

\[ Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \ldots + \beta_n X_{ni} + U_i \] (1).

\( Y_i \) = Willingness to pay for health care service (yes = 1, No = 0)
\( X_{1i}, X_{2i}, \ldots, X_{ni} \) = vectors of random variables.

Where,
\( X_1 \) = Age of household head (years)
\( X_2 \) = Highest level of education attained
\( X_3 \) = Number of wife
\( X_4 \) = Number of unmarried children
\( X_5 \) = Earning per month (in dollar)
\( X_6 \) = Total monthly expenditure on food (in dollar)
\( X_7 \) = Total monthly expenditure on education (in dollar)
\( X_8 \) = Total monthly expenditure on health (in dollar)
\( X_9 \) = Total monthly expenditure on other utilities (in dollar)
\( X_{10} \) = number of time of falling sick (days)
\( X_{11} \) = cost of treatment (in dollar)

RESULTS AND DISCUSSION

According to the outcome of analysis performed, about 82% of the respondents surveyed were occupying the position of husband while about 13% were housewives. The high percentage of the household head being husbands is in accordance with the norms, values and culture of majority tribes and ethnic groups in Nigeria, especially in western states. The 13% of wives being head of household might be due to demise of their husbands or divorce. 5 % of the respondents were either bachelors or spinsters in the study area.

The occupational distribution of the respondents in the study area revealed that 12.7% engage in farming activities as primary source of livelihood while the remaining 87.3% engage in farming activities as secondary source of their livelihood. Other economic activity that the people are into as their primary occupation includes artisan, civil service, trading and others with 34.5%, 16.4%, 15.5%, 1.8% and 9.1% respectively.

This distribution shows that there is diversification of economic activities among the people in the study area. This should be encouraged for it would enhance their source of income which will in turn improve their standard of living, including their health status. The frequency distribution of the respondents by sex showed that 20% were female while the remaining 80% were male.

The table 1 below indicated that the ages of the respondents ranges between 20 and 65. Larger percentages of the respondents (57%) are in their productive age of 20-49 years. The mean age was 46 years with standard deviation of 5.3 years. This implies that there are young and energetic people in the study area who could adequately make use of the health care facilities around to improve their health status. Availability of health care service in the area will guarantee timely health care service delivery, quick recovery
from sickness and thus will ensure buoyant economic transaction in the area. About 20% have non-formal education, 3.6% has Islamic education, 17.3% obtained primary leaving certificate and 31.8% had their secondary education. However, about 27% of the respondents have post-secondary education.

According to this analysis, the highest level of education qualification among the respondents in the area is secondary school education (31.8%). Generally, the level of education in the study area is relatively low. Although this is a true characteristic of a rural area, efforts should be put together to encourage and stimulate the residents of the area to further their education. The multiplier effects of this in the study area will translate into improved standard of living condition and their willingness to pay for health care service.

According to this research findings, majority of the respondents, about 67%, have between 1 to 3 children per household while 33% have more than 4 children. It is a well-known fact that increase in population leads to increase in total expenditure with accumulating effect in reduction in standard of living. This may result in poor health care accessibility, affordability and their willingness to pay for health care services in the study area.

### Table 1: Estimates of range, mean and standard deviation of some variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Range</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>20-65</td>
<td>46</td>
<td>5.3</td>
</tr>
<tr>
<td>Earning per month ($)</td>
<td>32.1-192.3</td>
<td>118.6</td>
<td>18.3</td>
</tr>
<tr>
<td>Expenditure on food per month ($)</td>
<td>6.4-128.2</td>
<td>76.9</td>
<td>14.7</td>
</tr>
<tr>
<td>Expenditure on education per month ($)</td>
<td>6.4-76.9</td>
<td>35.9</td>
<td>10.4</td>
</tr>
<tr>
<td>Expenditure on health per month ($)</td>
<td>3.2-16.0</td>
<td>5.5</td>
<td>1.8</td>
</tr>
</tbody>
</table>

In Table 1, the earnings per month of the respondents in the study area range between $32.1 and $192.3 while the mean income is $118.6 with standard deviation of $18.3. Generally, the income of the respondents in the study area is relatively low and this could be attributed to the observed low level of economic activity in the area.

This low pace of income generation in the area could transform to poor standard of living in which poor health status of the people could be one of the indicators. Likewise, it will also reflect in their attitude towards willingness to pay for health care services in the area. To improve on their low income level, there is need for stimulation of economic activities in the study area. Majority of the people in the study area, which is about 46.6%, spent between $6.4 and $128.2 on food consumption per month.

About 33% of the respondents spent between $32.7 and $64.1 per month, close to 14% expended between $64.7 and $96.2 on food per month while 3.6% of the respondents spent less than $6.4 and more than $96.2 respectively on food per month.

The average expenditure on food per month by a typical household was $76.0 with standard deviation of about $14.7. It could be inferred that expenditure of the people on food consumption in the study area is relatively low. Some of the reasons for this could be because of their relatively low monthly income and effect of subsistence agricultural practice in the area. People will spend less on food because they do substitute what they ought to buy with the food stuff gotten from their farms.

In the Table 1, about 21% spent less than $6.4 on education per month, 58% spent...
amounts ranging from $6.4 to $32.1 while 20% spent between $32.7 and $64.2 on education per month. However, only 1% spent more than $64.2. The amount spent on education by individual household varied with the number of people schooling in each family, the level of educational programme, standard of education facilities and whether the school is public or privately owned. The average amount spent on the education per month in area was $76.9 with standard deviation of $14.7. In the study area, larger percentages of the school attended by the people are public schools, with few individual families that could afford the relatively high school fees of private schools in the area.

The distribution of the respondent’s expenditure on health care service in the study area shown that about 22% spent between $0.64 - $3.2 per month, 36% expended between $3.6-$6.4 and 20% spent $7.1 to $12.8 while about 3% spent $13.5 to $16.0 and 19% spent above $16.0. A typical respondent on average incurred about $5.5 with standard deviation of $1.8 on health related issues per month.

According to the analysis, about 67% of the respondents said that they less often fall sick (i.e. these set of people occasionally visit hospital for treatment). However, they do occasionally use pain relief drugs or orthodox medicine after daily laborious job. Also, some of the people do exploit the abundance of natural herbs as alternative to manufactured drugs for treatment of their ailment. The type of ailments affecting respondents in the study area is at variance. According to the result of analysis, the major illness affecting the larger percentage (61%) of the populace is malaria. The next form of illness among them is typhoid fever, which affects about 21%. Accident and snake bite constitute 7.3% and 0.9% of sickness respectively. While ante/post natal care and medical check-up are 2.7% and 6.4% respectively.

The high incident of malaria in the study area was attributed to the prevalence of bushes and unhygienic environment which harbours and serves as breeding ground for mosquitoes which are the vectors of malaria. Also, typhoid fever incidence might be due to scarcity of portable water and low level of hygienic food consumption.

Hospital bills have to be paid for effective health care service delivery. The analysis of the survey of the study area reveals that majority of the respondents, which is about 72% paid their hospital bills themselves, 3.6% said their parents pay their hospital bills, 7.3% responded that it’s done by their husband while 17.3% are sponsored by children of aged parents. It is clear that people in the area hardly enjoy the free health care service of the government due to lack of adequate necessary health personnel and facilities. However, people prefer private hospital to government hospital because of prompt service delivery.

Result of Probit Analysis
Probit model was used as analytical tools to elicit various factors which respondents in the study area do consider to determine their willingness to pay for health care service. The result of the analysis is presented thus:

It is worthy to note that number of unmarried children and monthly expenditure on food were negatively related to willingness to pay for health care service in the study area (i.e. these reduce the probability of willing to pay). However, other variables considered for this study were positive to the willingness to pay for the health care service. The negative sign of coefficient of numbers of unmarried children in the household implies that one percent increase in number of unmarried children lead to ten percent (10%) reduction in probability of willingness to pay for health care service by the household. The implication of an additional child in a household will have multiple financial effects on health bills, food and educational expenditure and other marginal financial expenses within the household. The resultant effects of these marginal increases
will cause reduction in willingness to pay for health care services by an additional child born into the family.

Table 2: Result of Probit Analysis

| Variable          | Coefficient | Standard Error | Z    | P>|Z| |
|-------------------|-------------|----------------|------|-----|
| Constant          | -228.2201   | 114.4839       | -1.99| 0.046|
| Age               | 0.09749     | 0.0460         | 2.12 | 0.034**|
| Education         | 1.1260      | 0.6831         | 1.65 | 0.099*|
| No. Of Wife       | 6.0379      | 3.4937         | 1.73 | 0.084*|
| No. Of Unmarried Children | -10.0051 | 4.7680         | -2.10| 0.036**|
| Earning/ Month    | 0.0000      | 0.0001         | 0.08 | 0.935|
| Monthly Exp Food  | -0.0017     | 0.0010         | -1.64| 0.101*|
| Monthly Exp Education | 0.0002 | 0.0007         | 0.31 | 0.760|
| Month Exp Health  | 0.0122      | 0.0067         | 1.82 | 0.068*|
| Others Exp        | 0.0350      | 0.1585         | 2.21 | 0.027**|
| No Of Times Fall Sick | 50.9038 | 26.0654        | 1.95 | 0.051**|
| Cost Of Treatment | 0.0305      | 0.0152         | 2.01 | 0.045**|

SOURCE: 2009 Survey Data Analysis.
Level of Significance ** =5%, * =10%

According to the result of probit analysis presented in table 2, age, No of unmarried children, other expenditure, no of time fall sick and cost of treatment were significant at 5%, while No of wife, monthly expenditure on food and monthly expenditure on health were statistically significant at 10%

Also, food expenditure is negatively correlated with willingness of household to pay for health care service in the study area. It has been discovered that food accounts for a substantial part of a typical Nigerian household budget (Omonona, 2007). According to these findings, a substantial increase in food expenditure may cause significant reduction in other family's expenses. From the analysis presented one naira extra expenses on food will reduce willingness to pay for health care service by 0.16%.

CONCLUSIONS
According to the findings, majority of the respondents were male, young and energetic people involving in diversification of economic activities. Level of education as well as income and expenditure of the people on food consumption in the study area were relatively low. The major ailment affecting the larger percentage of the populace was malaria. Some of the people do exploit the abundance of natural herbs as alternative to manufactured drugs for treatment of their ailment. Willingness to pay was found to be a function of age, education, No of wife, earning per month, expenditure on education, expenditure on health and no of time fall sick and cost of treatment.

It is recommended that more effort should be geared towards improvement on the economic activities of the people living in the area. The multiplier effects of improved economics activities would improve their health status, income and generally, their overall standard of living.

REFERENCES


