

## ASSESSMENT OF HEALTH SEEKING BEHAVIOUR AND HEALTHCARE PAYMENT OPTIONS IN NIGERIA

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**Abstract.** Availability of resources, location of residence, and other health related factors affects the health seeking behaviour of people in Nigeria especially people in poor settlements. Many of the citizens pay for their healthcare needs through the regressive out-of-pocket payment method thus this could be a hindrance to seeking better healthcare. This study assessed the health seeking behaviour and payment options of slum dwellers using a one month recall period. Data was collected using a well-structured interviewer-administered questionnaire. The quantitative statistical tools used in the study analysis were tabulations, frequencies and testing of means. The findings showed that about 32.8% of the heads of households and 25% of other household members were sick one month prior to the interview. The major illnesses was presumptive malaria (54.9%) and (55.1%) for heads of household and other household members respectively. Majority of the head of households and other household members first sought for treatment from patent medicine vendors. The major payment option available for slum dwellers to pay for their health needs was through the out-of-pocket and it was used by 62.1% of heads of households and 73.2% of other household members. Only about 3% of the household heads and about 3.9% of other household members had any form of health insurance. The policy implication is the poor health seeking patten where majority seeks care at patent medicine vendors may be improved with a good financial risk protection mechanism such as health insurance, which will improve access.

**Keywords:** *health seeking behaviour, payment options, out-of-pocket payment, urban Slums and Abuja*

### Introduction

In Nigeria, the dominant mode of payments is the out of pocket payment. Household's contribution to sources of health financing was 65.85%, while out-of-pocket contributed 76.6% of percentage shares of total health expenditure by financing agent (Federal Ministry of Health, 2019). This mode of payment does not give value for money and should be discourage in a growing population like Nigeria. Over reliance on the Out of pocket payment and the absence of risk sharing is a major contributor to poverty. The risk of catastrophic health expenditures is exacerbated by lack of financial risk protection, especially where people pay primarily out-of-pocket for health care (Feder et al., 1987). Available evidence shows that the heaviest burden of health care costs, particularly those that are considered catastrophic, falls on the poorest (Xu et al., 2003). This is inimical to economic development of any nation as the poor continues to be poor and goes in to the vicious cycle of ignorance, poverty, disease and death.

The paucity of resource allocation to health in most Sub-Saharan African countries and the attending abysmal health outcomes has redirected the thinking and emphasis

shifting to ideas on how to finance health in these communities where most of the population resides. Nigeria has more of her inhabitants about 52% residing in the rural communities (The World Bank Official Portal, 2016). Nigeria is estimated to have an urban growth rate of about 4.3% (Department of Economic and Social Affairs, 2014). This rapid rural-urban migration has increased the population of urban slums across the Country. The rural and urban slum communities are characterized by lack of basic social amenities and other determinants of health. Studies have shown that about 69% of the overall population in Nigeria lives below poverty line of about one US dollar/day (NBS, 2021). Also about 38.7% of Nigerians are extremely poor and spends over 80% of their earnings on food. Access to basic healthcare needs is therefore made worse by one's place of residence in the country as those in the communities tend to suffer more. Financing health in these communities is purely out of pocket which in most cases catastrophic and puts the family back in the vicious cycle of poverty upon any health challenges to the household.

Nigerian urban reproductive health initiative (NURHI) reports show that in 1950, Nigeria had over 30M rural populations but less than 4M urban populations (NURHI, 2013). Over the years, Nigeria's rural and urban populations continued to grow, but after 1990, the rural population grew more slowly, whereas urban growth became very rapid (NURHI, 2013). In 2005, Nigeria's rural population numbered over 75M compared to 65M urban population (NURHI, 2013). By 2010, the urban and rural populations were nearly equal. It is projected that by 2015, three years from the date of the report, Nigeria's urban population will be almost 94M while the rural population will be around 82M (NURHI, 2013). More people will be living in Nigeria's cities and the rapid urbanization is expected to continue into the future. With the increasing globalization and the unequal distribution of basic amenities which favours the urban cities, the quest for urban migrations has created the growth of the urban poor populations. International statistics indicate that Nigeria has been experiencing one of the fastest rates of urbanization in the entire world. Growth rates in urban areas of Nigeria are almost double the growth rates of rural areas (NURHI, 2013). The pace of urbanization is higher in Abuja FCT as large numbers of people have been flocking to the capital city in search of greener pastures (Federal Republic of Nigeria, 2009). The 2006 census indicates that Abuja has the highest exponential growth rate of 9.3 in Nigeria (Federal Republic of Nigeria, 2009). This population is characterized with poor socioeconomic status and high population index. Urban slum dwellers often face health risks like those of rural villagers, similar gaps in knowledge of prevention and treatment also exist amongst this people. Access to health services appears more difficult for urban slum dwellers than commonly realized among urban poor; those living in slums, squalors and squatter settlements can face risks well in excess of rural health risks (Taher and Ibrahim, 2014).

## **Materials and Methods**

The study was a cross sectional descriptive study design and was used to determine pricing, willingness and acceptability by application of well-structured questionnaires as an interview tool conducted in five urban slums in Abuja, Nigeria.

### ***Sample size and sampling***

The sample size was determined using power analysis. Using the FCT annual exponential growth rate of 9.3, the projected exponential population of Abuja in December 2015 was 3, 228, 725 from 1,406, 239 in 2006 national census figure (Federal Republic of Nigeria, 2009). Given a simple formulation: Desired sample size =  $n + 10\%$  attrition rate; as well as using an error margin of 5% at 95% confidence interval and a population of 3,228,725 the sample size was 384. However, 10% of the estimated sample size was added because of attrition to obtain the desired sample size i.e. 422, and then approximated to 500. The quantitative study was done in these same locations in Abuja. It was a multi-stage sampling process: (a) ten (10) communities (i.e. two per slum) from the five (5) identified study areas was selected to reflect the slum settlements evenly. In each of the 5 selected study areas, 100 households were interviewed. (b) The households were selected using a simple random sampling method. This is because streets are not numbered, houses are not numbered and household's registrations do not exist in these slums.

Sampling was done using the following methods: In each suburb, a central location was chosen such as Schools, Churches, Mosques, Police Station, Clinics or markets. Then a household closest to the starting point was first chosen, thereafter chose every other household until approximately the required sample size was collected.

### **Data collection**

Data was collected with the assistance of trained research assistants. Ten (10) research assistants were recruited for the purpose of this research for two (2) month. The assistants were trained by the principal investigator for two weeks to master the different sections of the questionnaires and improve their skills in data collection. Three assistants were deployed per identified study area with supervision from the principal investigator. Data was collected from the head of the household, and where there was no head, it was collected from the wife or next to the head of the household. It was an interviewer administered survey with price elicitation.

### **Data analysis**

Collected data was imputed into the computer, cleaned, coded and rechecked for completeness of data entry. Data cleaning was done to ensure no missing data from the raw data. Data was analyzed using Statistical Package for Social Sciences (SPSS) version 22. The quantitative statistical tools used in this study were tabulations, frequencies and testing of means.

## **Results and Discussion**

*Table 1* shows that 42.4% of the respondents were male head of households. The table also shows that 52.8% of respondents were main income earners and 56.0% of them were the main decision makers. A total of 96.2% of the respondents went to school and the highest level of education was senior secondary school (46.6%). Majority of the respondents (28.2%) were petty traders and self-employed professionals (29.0%), while the smallest groups of people were farmers with 3.4% and big business men and women with 3.6%. The mean age of respondent was 32.95 years with a median age of 31 years (*Table 2*). The minimum age is 16 years and maximum being 62 years. The mean value of people that live in the house including the head of household is 4.69.

The results indicate 70% of households had radio, fan and television, continue by 58.8% had generator, 63.8% had fridges, as well as only 9% of the respondent had air conditioner in their houses. Not to forget in transportation, approximately 27.6% of the respondents had a car while 11% had motorcycle and 6% had a bicycle.

*Table 1. Demographic characteristics of the respondents.*

Category	Frequency (%)
Status of respondent	
Female head of household	39 (7.8)
Male head of household	212 (42.4)
Wife	205 (41.0)
Grand mother	4 (0.8)
Representative of househld	40 (8)
Gender	
Male	224 (44.8)
Female	276 (55.2)
Highest education level	
Primary	74 (15.4)
Junior secondary	41 (8.6)
Senior secondary	224 (46.6)
Teacher training college	10 (2.1)
College of education	41 (8.5)
University or polytechnic	72 (14.9)
Others	19 (3.9)
Occupation	
Farmer	17 (3.4)
Unemployed	34 (6.8)
Petty trading	141 (28.2)
Government worker	45 (9)
Employed in private sector	57 (11.4)
Big business	13 (3.6)
Self employed professional	145 (29.0)
Others	43 (8.6)
Quartile	
SES 1	116 (25.5)
SES 2	113 (24.5)
SES 3	119 (26.0)
SES 4	109 (24.0)
Household assets	
Radio	367 (73.4)
Television	437 (87.4)
Air conditioner	45 (9.0)
Bicycle	30 (6.0)
Motorcycle	55 (11.0)
Car	138 (27.6)
Fridge	319 (63.8)
Generator	294 (58.8)
Electric fan	434 (86.8)
Other comments	293 (58.6)
Household main income earner	264 (52.8)
Main decision maker	280 (56.0)

Respondents that went to school	481 (96.2)
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**Table 2.** Descriptive analysis of the socio-demographic data.

Category	Mean	Median	Standard deviation	Minimum	Maximum
Number of people that live in the household including the head	4.69	4.00	2.480	1	26
Age of respondents (years)	32.95	31.00	8.622	16	62

Table 3 shows that out of the 32.8% that were ill in the last one month prior to the interview. The head of household's major type of illnesses were presumptive malaria (54.9%), typhoid (15.2%) and diarrheal disease, (1.8%) respectively. However, an association exists with type of illness with a p-value of 0.048. Most heads of household (61%) sought treatment at a chemist (Patent Medicine Vendor) (Table 4). The test of association is statistically significant with a p-value of 0.012. The table shows that 25% of other household members were ill in the last one month; most of them also suffered presumptive malaria (55.1%) while those that suffered typhoid were 12.5%, other disease were 25.9% and diarrhea disease 6.2% of the respondents. Amongst the respondents, 57.5% sought for treatment at the chemist shops.

**Table 3.** Type of illness by respondents.

Type of sickness	Head of household (N/%)	Other household members (N/%)
Malaria	90 (54.9)	70 (55.1)
Typhoid	25 (15.2)	16 (12.5)
Diarrhea	3 (1.8)	8 (6.2)
Other diseases	46 (32.8)	33 (25.9)
Total	164 (100)	127 (100)
Chi-square	8.13	3.71
p-value	0.047	0.031

**Table 4.** Type of treatment was sought by respondents.

Type of treatment	Head of household (N/%)	Other household members (N/%)
Traditional healer (herbalist)	11 (6.7)	4 (3.1)
Chemist (patent medicine dealer)	100 (61.0)	73 (57.5)
Home treatment	3 (1.8)	2 (1.6)
Health centre	4 (2.4)	3 (2.4)
Public (general) hospital or clinic	28 (17.1)	6 (4.7)
Private hospital or clinic	15 (9.1)	24 (18.9)
Others	3 (1.8)	15 (11.8)
Total	164 (100)	127 (100)
Chi-square	14.07	21.00
p-value	0.012	0.036

Table 5 shows that most of the household head walked to (54.5%) and fro (58.6%) to the treatment centre, while the least utilized mode of transportation to the treatment centre was private vehicles. An association exists with the mode of transportation both to and fro with a p-value of 0.022 and 0.035 respectively. The table also indicates that

most of other household members (53.5%) walked to the treatment centre, while a few about 2.3% used personal vehicles for transportation. Transportation back from the hospital also appears the same (Table 6). The use of Okada (Motor Cycles) appears to be the second most patronized form of transportation to and from the hospital amongst heads and other household members. The mode of transportation both to and from appears statistically significant. The mean expenditure of transport per month for household heads is N300.00 (Table 7). However, for other household members, the mean cost of transportation was N400.00.

**Table 5.** Respondent's transportation to treatment centre.

Transportation to treatment centre	Head of household (N/%)	Other household members (N/%)
Personal vehicle	5 (3.0)	3 (2.3)
Bus (public transport)	16 (9.8)	13 (10.2)
Taxi	14 (8.5)	16 (12.0)
Okada	28 (17.1)	21 (16.0)
Walked	96 (58.5)	68 (53.5)
Others	5 (3.0)	6 (4.7)
Total	164 (100)	127 (100)
Chi-square	21.73	30.18
p-value	0.022	0.017

**Table 6.** Respondent's transportation from treatment centre.

Transportation from treatment centre	Head of household (N/%)	Other household members (N/%)
Personal vehicle	5 (3.0)	6 (4.7)
Bus (public transport)	16 (9.8)	10 (7.8)
Taxi	14 (8.5)	15 (11.8)
Okada	28 (17.1)	21 (16.5)
Walked	96 (58.5)	72 (56.6)
Others	5 (3.0)	3 (2.3)
Total	164 (100)	127 (100)
Chi-square	20.47	18.14
p-value	0.035	0.027

**Table 7.** Cost of transportation.

Cost of transportation (in Naira)	Head of household	Other household members
Mean	300.91	400.00
SD	488.85	431.66
Min	30.00	50.00
Max	5000.00	2000.00

Table 8 shows that majority (62.1%) of the respondents paid through out of pocket, and most was their personal money. Only about 3% of the respondents had any form of health insurance. An association exists with different treatment expenditure with a p-value of 0.047 for head of households. Table also shows that majority (73.2%) of other household members paid through out of pocket payment, and only about 3.9% had health insurance cover. Table 9 shows that the coping mechanism was centered mainly on own money and borrowed money.

**Table 8.** Treatment expenditure for households.

Treatment expenditure	Head of household (N/%)	Other household members (N/%)
Paid cash and was reimbursed by employer	13 (7.9)	12 (9.4)
Out of pocket	102 (62.1)	93 (73.2)
Health insurance	5 (3.0)	5 (3.9)
Installment	0 (0)	4 (3.1)
In-kind	0 (0)	1 (0.7)
Others	44 (26.8)	12 (9.4)
Total	164 (100)	127 (100)
Chi-square	24.17	30.15
p-value	0.047	0.032

**Table 9.** Payment coping mechanism for households.

Payment coping mechanism	Head of household (N/%)	Other household members (N/%)
Own money	121 (73.7)	101 (79.5)
Borrowed money/loan	8 (4.8)	10 (7.8)
Payment was subsidized	2 (1.2)	9 (7.0)
Payment was deferred	3 (1.8)	1 (0.7)
Exempted from payment	1 (0.6)	1 (0.7)
Others	32 (19.5)	5 (3.9)
Total	164 (100)	127 (100)
Chi-square	19.21	16.90
p-value	0.005	0.027

The health status and health seeking behaviour of the slum dwellers was found to be directly related to the environment. Every month, more than a quarter of both the head of households and other household members were sick based on the findings of this study. This high morbidity pattern may not be unconnected with the overcrowding, dirty environment, poor sanitary condition and limited physical access to health facilities noticed by the researchers. More than half of the population of slum dwellers suffers Malaria presumptively. Diarrhea disease was found to be another illness that adversely affects urban slum dwellers. Incidentally, despite the high morbidity pattern noted, more than half of them that were sick of any kind of illness use the Patent Medicine dealers (Chemist) within the slum for their treatment. Despite this high morbidity pattern, only few of the resident utilized Primary Health Centres which is supposed to be the nearest health facility to the slum dwellers. This finding affirms the physical access constraints to Primary Health Centres within the slums studied. Transportation to the caregiver was predominantly through walking to the facility to and fro. This may be so since most of the care givers were Chemists which were located within the slums. Though the use of Motor Cycle is banned within Abuja city, the use of Motor Cycle (Okada) as the next most patronized mean of transportation to health care facility within the slum was because the ban never affected the slum settlements.

This study showed that majority of head of households and other household members respectively paid for their health care needs through the regressive out-of-pocket payment. This finding is in agreement and very closely related to the national out-of-pocket expenditure value estimate of 76.6% (NBS, 2021). A statistically significant P-

vale for self and others household members respectively for the payment and coping mechanism indicates that an association exists. The studied slums had no form of Community Based Health Insurance thus only a few of the population that paid through health insurance may be federal public servants residing within the slums in Abuja. The out-of-pocket payment was also revealed in the study to be the most dominant method of payment made for treatment of illness especially to the Chemist. Malaria being the most common cause of illness in Nigeria, accounts for majority of those who pay for treatment of presumptive Malaria in the slum. Unfortunately, the study showed they paid through the regressive out-of-pocket payment method. In addition, all the diseases treated within the studied area, more than half of the payment was through out-of-pocket payment. Though the national algorithm for the management of Malaria requires laboratory investigations to support treatment, most of those who suffered malaria within the slum were treated at the Chemist shops without passing through any laboratory evaluation. This practice may have contributed to the proliferation of Patent Medicine (Chemist) stores within the slum settlements. The non-utilization of hospitals in the treatment of Malaria by slum dwellers was demonstrated in this study as only few of those who suffered presumptive Malaria visited any form of hospital

It is recommended that the Federal Capital Territory Administration (FCTA) should work out a health financing mechanism that will improve access and reduce the high out-of-pocket payment experienced by urban slum dwellers. Health education and training and re-training of patent medicine vendors should be carried out by the authorities in view of the high patronage within the community. A context based health financing model that addresses the specific need of the Federal Capital Territory Administration residents should be adopted in place of the regressive out of pocket payment used by the residents (World Health Organization, 2005).

## **Conclusion**

The circumstances of the study area are not different from what is obtainable in many parts of Nigeria. The study concludes that the most common disease affecting households is presumptive Malaria and most people sought for treatment at the Patent Medicine Dealers (Chemist) and the regressive Out of Pocket payment is the dominant form of healthcare payment in Nigeria..

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## **Conflict of interest**

The corresponding author is the lead author and self-sponsor of the research, thus the author declares that there is no competing interest.

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