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# Experience of Health Shocks and Uptake Of Health Insurance in Rural and Urban Communities, North Central Nigeria: A Qualitative Study

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**Abstract**

**Introduction:** Illness experience by households is majorly financed by out-of-pocket (OOP) payments in Nigeria. Many households adopt informal mechanisms to cope with healthcare expenditure. The existence of National Health Insurance Scheme (NHIS) is yet to forestall financial catastrophe with huge gaps in access to care by the poor and informal groups, especially rural dwellers. The objective of this study was to assess the experiences of health shocks and uptake of health insurance among households in North Central Nigeria.

**Methodology:** This qualitative study involved focus group discussions conducted between June – September, 2019, in selected rural and urban communities in North Central Nigeria. Thematic analysis generated five major themes on health shocks, healthcare facility utilized, health expenditures, coping mechanism and effects of health shocks on households.

**Results:** Majority of the households, especially rural dwellers reported experience of health shocks in the last one year prior to the study. Most rural and urban households sought care from private health care providers and chemists because public health facilities were inaccessible to due distance and affordability. Almost all household heads in both the rural and urban communities financed healthcare through OOP. Most households had to adopt informal coping mechanisms such as borrowing, selling of assets, deferring payments.

**Conclusion:** Households in the rural communities experienced more health shocks. The uptake of health insurance among both rural and urban dwellers in North-central Nigeria was very low. State and community-based health insurance schemes should be implemented to provide financial protection.

**Key words:** Health shocks, Health Insurance, Out-of-pocket payments, Coping mechanisms

## Introduction

When households experience unpredictable illnesses that diminishes health status, it is globally expected that they should have access to affordable, equitable and quality healthcare services that can improve health outcomes under a health insurance cover.[1] Evidence however shows that majority of healthcare financing is made of out-of-pocket (OOP) payments by households, especially in low-and-middle income countries (LMIC), Nigeria inclusive.[2-3] This method of healthcare financing has led to catastrophic health expenditure (CHE), impoverishment and diminished many households' wellbeing. Globally Universal Health Coverage (UHC) seeks to reduce financial risk associated with healthcare expenditure impact on households.[4-5]

OOP payments reduces the affordability of services, increases health burden and increases financial catastrophe.[6] Nigeria shows high dependence on OOP expenses for health care and a very low budgetary allocation for health at all levels of government with a very poor health insurance penetration.[5, 7-8] This is particularly predictable because the total health expenditure on health in 2020 is 4.16% of the GDP.[9]

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The rising cost of health care services and inability for households to cope with high health care expenditure necessitated the establishment of National Health Insurance Scheme (NHIS) to provide accessible, affordable and high-quality healthcare services to all Nigerians irrespective of socio-demographic and socio-economic factors while protecting them from the high health care cost.[10]

Furthermore, after almost two decades of operations, anecdotal evidence shows that less than 5% of the total population is covered by NHIS; this is attributable to the fact that it predominantly serves as the formal sector social health insurance program leaving out the informal sector and the rural communities.[7-8, 11-12] This low coverage is unacceptable because the economic consequences of healthcare expenditure can be dire and people may be trapped into persistent poverty just because the health insurance that is expected to provide financial protection and reduce the financial risk for households associated with falling ill is grossly absent.[13]

When health shocks which is mostly unpredictable, burdensome and most common of all shocks occur, many households try to cope with high health care expenditure by adopting many informal mechanisms such as asking for help, selling of assets, borrowing, removing children from school, working extra hours and reducing consumption.[7] Health shock is defined as any family member suffering an illness, an injury, or in the extreme case it may be death of an income earning member of the household.[14-15] Adopting these informal mechanisms by most households who experience health shocks is majorly due to very low and unacceptable health insurance coverage especially rural dwellers[5, 26-17] who constitute about two thirds of the country's poor.[17 -18]

With households experiencing health shocks and lack of health insurance coverage especially in developing countries, it is estimated that over 150 million people globally suffer financial catastrophe and over 100 million falls into poverty due to OOP payments for healthcare expenditures yearly,[19] and developing countries accounts for over 70% of the number.[20] Therefore, the constant call for UHC is for health systems to provide both access to health services and financial protection, this is a target for the global community and governments so that efforts toward achieving this goal in the near future is geared up.[7]

This study was conducted to bring to insight the need for Nigeria to ensure UHC is achieved across all levels for its citizens since achieving UHC invariably means increasing the safety net for households so that when they experience health shocks, they are financially protected from high OOP expenditures and financial catastrophe. There are research gaps in Nigeria on health shocks, the level of insurance enrollment and the reasons why households are not enrolled into health insurance schemes which this study explored. This study sought to provide information for all levels of government and policy makers. The objective of this study was to assess the experiences of health shocks and uptake of health insurance among households in North Central Nigeria.

**Methods**

This qualitative study was conducted in rural and urban communities in Kwara and Nasarawa states, North Central Nigeria, between June and September 2019. Kwara State, with the capital in Ilorin, is divided into three senatorial districts and these are Kwara Central, Kwara North and Kwara South senatorial districts.[21] Agriculture is the main stay of the economy and the principal cash crops are: cotton, cocoa, coffee, kola nut, tobacco, and palm produce. The projected population based on an annual growth rate of 3.2% is 3,192,893.[22] Nasarawa State has Lafia as its capital, and is also divided into three senatorial districts and these are Nasarawa West, Nasarawa North and Nasarawa South senatorial districts. The State has a projected population of 2,523,395.[22] Nasarawa State has agriculture as the mainstay of its economy with the production of varieties of cash crops throughout the year.[23]

Focus group discussion (FGD) was used to obtain data from respondents. Participants were household heads that were purposively selected based on age (18-70 years), gender and being a resident in the area for the last one year. The gender was used as a criterion to represent each homogeneous group which makes two homogeneous groups of male and female. Each group consisted of about 6 – 10 persons and each session lasted about 45 to 60 minutes. There was a total of 192 Participants. The medium of conversation was Yoruba and Hausa, which were the native languages in Kwara and Nasarawa State respectively for both interviewers and participants.

The focus group discussion was recorded on tape recorders. A FGD guide was used to conduct the interview. The interviews were translated into English. The data was analyzed manually, using thematic analysis approach. Codes were generated based on the research objectives. Subsequently, the codes were accumulated into clusters, and then themes were used for the formed clusters. Ethical approval for the study was obtained from the research and ethical committee, University of Ilorin, Kwara State, Nigeria. Written informed consent and socio-demographic data were obtained and documented from respondents after thorough explanation of the study to them. All information was treated with utmost confidentiality. Participation in the study was also absolutely voluntary.

**Results**

A total of 24 FGDs were carried. A total of 192 people participated in the FGD, including 80 participants in the urban and 112 in the rural communities. The median age for participants was 39.55 years in the urban and 42.45 years in the rural area. The distribution by gender was 48% males and 52% females. The average monthly income was ₦ 56,230.66k (1US $ = ₦358 as at the time of study). In the urban community, the average monthly income was ₦78,100.40K and in the rural, it was ₦40,609.41k. The average years of education in the rural group was four years while in the urban, it was ten years. More than 90% of the rural dwellers were farmers while the urban dwellers were mostly self-employed. For the rural dwellers, 100% of them were uninsured while 92% of the urban dwellers were uninsured. The analysis of the data emerged from five themes which were: health shocks and illness experiences, where healthcare was sought, health expenditure, coping strategies adopted during health shocks and effect of health shocks on households.

**Health shocks experiences by households**

Health shocks are being experienced day in day out by households who live in rural and urban communities in North Central Nigeria. Most households experienced different types of health events (illnesses and injury) as health shocks which resulted in outpatient care, inpatient care or death. The common types of illnesses experienced by households are headaches, malaria, typhoid, surgeries, or even death of main income earner. In the study, the major illness in the urban setting is malaria, diarrhoea, Upper Respiratory Tract Infections (URTI), severe body pain and surgeries; while Malaria, typhoid and URTI were more mentioned in the rural communities; and when being asked about illness during FGD, a middle-aged woman in rural community in Kwara stated that;

***"It is not possible to be free from sickness." – FRB1***

**Where treatment was sought**

When sickness occurs, many of the households seek care either at public or private health care facility; most rural dwellers patronize the patent medicine vendors (PMVs), Community Health Extension Workers (CHEWS)/Community Health Officers (CHOS), and to a less extent private nurse, and private hospitals. The main reasons given by the rural dwellers were that the afore-mentioned are nearer to them and are easily accessible. Other reasons were that the private health care providers especially the staff in private hospitals are more diligent and well-mannered; there are no bureaucracies before seeing a doctor; there is reduced waiting time; and more equipment in the private hospitals. A respondent from rural Kwara said when asked about the hospital where they sought care;

***"I visit a woman up there who sells drugs for us and gives us injections" - FRE1***

Additionally, a rural dweller from Nasarawa state stated that;

***"We visit a private hospital nearby when ill because the primary health care that you see over there has been built for the past four years with no single equipment nor staff". – MRA2***

The urban dwellers patronized the patent medicine vendor/chemist more, followed by the private hospital and then public hospital. The major reason was because the patent medicine vendors/chemists are more accessible. The respondents also seem to trust their judgements and skill better than what they get in the hospital. A respondent from urban Kwara said,

***"I am a patent medicine provider, I treat people. I can offer rapid malaria test for people. I get a lot of patronage from this community. I learnt how to attend to people by learning in a pharmaceutical store". –FUA3***

Many urban respondents are not pleased with the attitude of the health workers in the hospital especially the public hospitals. They also complained about the lack of treatment materials at the emergencies for emergency cases, lack of equipment, and inadequate staff. A mechanic respondent from urban Kwara said;

***"My wife usually has malaria and my kids too. Once we are ill, I go to the private pharmacy, I will tell them what is wrong with me and I will be given drugs". – MUA1***

Another Respondent from urban Kwara narrated that

***"Some people prefer to go to the pharmacy when ill because going to the general hospital is a long process". – MUA4***

Another middle age man respondent from urban Kwara with angry voice said,

***"When one gets to the hospital, at least first aid should be provided. If drugs are written, you are mandated to get at least 60% of the drugs before you are attended to, it does not sound well at all and you know money for sickness is not usually kept aside. So, the issue of going to the government hospital is out of people's mind so they patronize the pharmacy for paracetamol first". -MUA5***

Additionally, a middle age woman said in urban Nasarawa that:

***"We visit the primary health care in our catchment area when we fall ill because it is functional". – FUA1***

A respondent in the urban Kwara said,

***"I access care in a pharmacy. The pharmacy is big. I buy drugs there after being tested by them. It's the pharmacy technicians that take care of me". –MUA3***

Some respondents in Urban Kwara do not go to orthodox health care facilities or forgo healthcare, or use traditional herbs or faith-healing because of different reasons, including lack of capacity to pay. A 55-year-old female respondent from the urban community in Kwara says:

***"Anytime I or my children fell ill, I'll take a cup of clean water and pray on water and we drink it and we will be fine". FUS1***

**Health care expenditure by households who experienced health shocks**

The amount spent by households in the last twelve months prior FGD was asked. During the discussion, it was found that in North central, the average amount spent on ill health in the last 12 months was ₦15,000. This amount is the total for both the direct and indirect health costs. Most of the payments are OOP which is at the point of health care service. Households who had members who underwent surgical procedures spent much more. A 40- year – old woman said her mother in-law who resided with them took ill,

***"She had to undergo a surgery in the general hospital; the rate for everything was about ₦350,000. The amount spent was shared across board the children of her mother in law". FUA6***

Averagely in the last 12 months, households spent an average of ₦10,000 for health care in the rural communities. The cost covered both direct (direct medical costs like consultations, drugs, tests: direct non – medical cost like transportation). Many people cannot delineate finely what was spent for each type of health expenditure because of poor recall and many people are not careful enough to separate how the money was spent. A woman in a rural community in Kwara narrated that her experience with a private nurse who treats people in her house, she said:

***"Sometimes when we go and a child gets injection, we spend like ₦1500". –FRE4***

Another 25-year-old woman who resides in rural Kwara who just put to bed in a private hospital at the time of discussion said,

***"The amount spent in the last one year is uncountable. I just gave birth, I spent about ₦20,000". – FRO5***

Similarly, a woman from the rural village in Nasarawa stated;

***"I spent ₦11,000 last week to care for my ill health" – FRA6***

Additionally, a woman from the rural village in Nasarawa stated,

***"My husband was ill and was treated in the general hospital. I spent ₦20,000. I got money from family members. I sold crops and borrowed money from friends". -FRA3***

**Coping strategies adopted by households**

The coping mechanisms households adopted by households as deduced from FGD showed that when health shocks occur, most of the rural dwellers do not plan for sickness, so whenever any household member falls ill, they try to cope in a number of ways to pay OOP. Savings depletion is the most common way of quickly sourcing for money to smoothen health shocks, followed by borrowing from friends and family. Other forms of coping, in descending order of prevalence, are: sale of assets, sale of farm produce, use of savings, defer payments or they apply the most extreme form of coping which is to do nothing by forgoing health care. Most of the people who forgo health care were as results of poverty (no capacity to pay), while others said they use faith for healing when sick. A male respondent from rural Kwara said:

***"For sickness, we don't save for it, we only save for marriages because once the day is fixed, we begin to keep money little by little but once sickness come we must look for how to get the money any how no matter how difficult it seems." –MRE6***

Another respondent from rural Kwara reiterated;

***"When sickness comes, sometimes we don't have any kobo with us but we quickly borrow from friends and we pay when the month ends and sometimes we defer payments at the facility till month end. This kind of money for sickness is not usually planned for at all." – FRB3***

Similarly, a female respondent from rural Kwara

***"I have kids who are have sickle cells, when in crises, we have to run around to look for money by borrowing money from friends and relatives, we just finished paying our debts but yet to complete paying school fees. The health care spending affected a lot of household expenditures such as food and school fees". – FRE4***

Additionally, a respondent from rural Nasarawa said;

***"I try to cope by borrowing money from friends and I sold some groundnuts from my farm produce and I have not finished paying my debts, we are farmers, so whatever we spend on health eats into our farm produce". – MRA6***

An old man in rural Nasarawa said;

***"I rush to farm to harvest yam and maize so I can pay the health bills" – MRA3***

The urban dwellers too try to get informal mechanisms to cope when health shocks occur so that they can try to smoothen out the effects without serious adverse impact on household expenditure. A man in the urban Kwara said;

***"Sometimes sickness and household expenses come at same time whereby I attend to the health of household member first. Illness usually affects the household expenditures". - MUA2***

The discussion found that most households coping strategies to pay for ill health is out of pockets by depleting savings, many borrowed from friends and relatives, some other deferred payments while some others who were farmers sold farm produce like crops and animals. Another middle age man in urban Nasarawa said:

***"I sold my land to care for a household member that had cancer". – MUB2***

Surprisingly, insurance which should serve as a form of financial protection or coping mechanism for households when they experience health shocks is not commonly used by respondents to cope with health shocks. Many households in both the rural and urban communities in north central Nigeria did not adopt insurance as a coping mechanism and the FGD inquired reasons why more than 98% of households were not enrolled. The findings were that most of the respondents have not heard of health insurance, and this was more among the rural dwellers. A respondent who resides in the rural Kwara said:

***"We haven't heard about health insurance before, no one has ever been here to let us know if there is anything like that, we only have some other people who have been here to test our blood and give us drugs, is it the same as the health insurance you are talking about?" – FRA2***

The few among the rural respondents who have heard about health insurance before the discussion said they thought health insurance was only for people in the urban area, or people who work with the government. A respondent in rural Nasarawa said,

***"I have heard of health insurance before but I thought it was only for people who work with the government". – MRA3***

Most respondents in the rural communities are not enrolled in health insurance. In the discussion, more than 90% of respondents of the rural dwellers have not heard about health insurance except in the areas where previously, the Kwara State community-based health insurance scheme (CBHI) popularly referred to as "Hygeia" existed. Many respondents who lost their insurance cover because the scheme was suspended said, *"even if the registration is doubled, they will still enroll"*. Some women spoke with loud voices pleading with the government to help them bring back health insurance to their door steps. Another respondent chanted in a loud voice that;

***"We plead for mercy from the government to please bring back Hygeia, we love it and we enjoy it, the Lord will help the government".* – MUS1**

Additionally, another respondent from the rural Kwara said,

***"The government has stopped Hygeia program and since they stooped it, we have been suffering health-wise. It is very painful because they cancelled it. They cancelled it all over Kwara state. Hygeia has been ruined, if they can start it again, it will be better." – FRB3***

Similarly, a middle age woman from rural Kwara reported that,

***"We plead for mercy from the government to please bring back Hygeia, we love it and we enjoy it." – FRB5***

The discussants in the rural areas where CBHI was removed lamented about the high rate of suffering they now face in seeking healthcare, especially the vulnerable group: children and elderly people. A 45-year-old female respondent said;

***"The premium was just 500 and yet they were able to access all forms of health care including surgeries of all forms" (caesarean section, eye surgeries, hernias etc) without having to pay any additional fees". – FUS4***

The idea behind the health insurance scheme was discussed and questions were asked to know if households are willing to pay for insurance premiums and they were also asked what amount they have capacity to pay. Many people agreed that they were willing to join the scheme once it kicks off because of its health and financial benefits. Most people in the rural community agreed that if the government kick starts the scheme, they have the capacity pay ₦2000 premium per household annually.

On the other hand, a respondent said;

***"I can't pay any amount for health insurance. I don't pray for sickness; how can I pay some money in anticipation of ill health. I am not praying for sickness; no, I can't pay in lieu". – MUO2***

Another middle age man respondent in the rural Kwara said

***"I can't pay because it is the government responsibility to care for all her citizens free, so it should be totally free. When we were younger about 30 years ago, health care was free, why is it different now even when we have all the resources, we need to care sufficiently for everyone. The government should do what is necessary to make it happen". - MUO3***

A woman in a rural environment who is willing to join the insurance scheme said,

***"Our husbands are the ones who can say the amount they have capacity to pay, we can't say because he is our head" – FRE6***

A respondent affirmed after the FGD about willingness to pay health insurance premium that,

***"I have not heard of health insurance before but from the discussion, I will join if it does not cause financial burden to me. I am willing to join because of good health." – MRE4***

**Effects of health shocks on households in rural and urban communities**

The effects health shocks have is mostly on food, whereby many households reduce food consumption to twice daily, or the quality of food eaten is reduced. Another effect of health shocks on household with OOP is on children's education, as sometimes the money meant for school fees are diverted to pay for illness. For some respondents, health shocks affect their businesses in two major ways: through indirect medical expenditure by losing work day(s) due to illness, or by them selling off goods they trade with no hope of replacements. When small and medium scale businesses are affected as a result of health shocks, it further pushes people to poverty because the means of income is grossly reduced.

A female respondent from rural Kwara reiterated that:

***"Caring for sickness affects household spending, especially food. We usually forfeit feeding for health care cost expenditures". – FRB2***

Similarly, another middle age woman from rural Kwara said:

***"Sometimes we even remove the money from the children's school fees so it affects children' education. It also affects feeding because when we pay for health care food is reduced". - FRE2***

Additionally, a 50-year-old hair dresser said:

***"I can't calculate in particular the amount spent but it affected my petty business greatly because I picked money from my trade. I am a hair dresser such that I could not re-stock some things in the shop. Also, it affected food greatly." - FRO2***

A female respondent in rural community in Nasarawa state lamented on the effect of health shocks and the money spent for health care, she said with sad tone,

***"uhmmm……..illnesses affected school fees of the children and feeding at home which had to be reduced " - FRA5***

Some respondents who had farm produce had to sell their products off cheaply so as to get money for health care; while some incurred income loss because they had to stay off work to stay with their relatives on admission. Findings from the FGD showed that both rural and urban households experience reduced productivity and increased income loss when illness occur especially if a household member is hospitalized or died as a result of health shocks. When small and medium scale businesses are affected as a result of health shocks, it further pushes people to poverty because the means of income is grossly reduced. A female respondent from rural Kwara reiterated that:

***"Caring for sickness affects household spending especially food. It affects feeding a lot. We usually forfeit feeding for health care cost expenditures".***

**Discussion**

This study found that health shocks was mostly experienced by the rural dwellers than the urban dwellers. This high presence of health shocks among the rural dwellers may be attributed to possibly high disease burden in Nigeria, which is disproportionately higher among rural residents.[24].

The reported probabilities for all measures of health shocks highlight that a significant proportion of people experienced a health shock, but health shocks generally have significant effects on low-income groups and low educated households.[25]

This study revealed that, most households who experienced health shocks were outpatient cases, this is because there are many outpatient cases daily than inpatient cases and malaria was the major cause of health shocks and hospital visits in North Central Nigeria. This is probably because Nigeria carries almost a quarter (25%) of global malaria burden.[18] In addition, it has been proven that malaria accounts for 60% of outpatient visits and 30% of hospitalizations among under five years of Nigeria and North central has the second highest

prevalence of Malaria in the country.[26] This implies that strategies for malaria control by the government at all levels should be strengthened to reduce health shocks as a result of malaria fever.

Rural households also suffer abdominal disorders like diarrhoea and typhoid than urban households probably because they lack environmental hygiene, food and water hygiene including lack of portable water supply and toilet facilities more than urban communities. This is consistent with what was found a study in North about high prevalence of diarrhoea diseases in Nigeria due to lack of water, sanitation and hygiene (WASH) facilities especially in the rural North.[27] The policy implication of this is that the prevalence of health shocks among households can be reduced by provision of potable water and increased awareness to households can be provided in the communities by primary health care workers on hygiene and sanitation so that health shocks from infectious diseases can be reduced.

This study found that when rural and urban households are struck with health shocks, they access healthcare services at public health facilities, private health facilities, Chemists and private healthcare providers. However, the rural participants sought care more at the chemist than public and private health facilities because they are more accessible while the urban dwellers prefer to seek healthcare at the public or private health facilities; this may be because they are more educated and have more access to health care, and are more privileged to be enrolled in insurance than the rural dwellers.[28] The policy implication of this is that at all government levels in Nigeria, quality health care should be more affordable and accessible by all, irrespective of area of dwelling.

The rural communities may visit more of the patent medicine vendors, CHEWs/CHOs, and private nurses for their chronic disease follow ups rather than go to hospitals probably due to access and financial constraints.[29] Additionally, this study found that many rural households patronize the alternative and traditional medicine more than the urban communities.[30-31] This may be because payment for health care using OOP is the most commonly adopted strategy to finance health care in Nigeria, and many studies have shown that OOP payments has a detrimental effect on poor households.[32-33] Health expenditure is proven to have less adverse effect on the richer households, thus exacerbating the already existing income inequality between the rich and the poor. OOP payments create a catastrophic burden on the poor households who are made worse off for seeking healthcare.[12] Some other studies found OOP expenditure to be disproportional among the rich and the poor households.[34-38]

In addition, this study found that when the rural dwellers encounter high health care expenditure, they either delay seeking health care or forgo quality health care hence diverting to alternatives.[32] Therefore, since poor rural households cannot pay the high cost of health care, they may have to suppress their health needs, embark on self-medication that takes a smaller proportion of their income or seek low quality care with low cost.[20, 38, 45] The implication of this is that government should create structures that will reduce the inequity in health care financing by households by increasing social health insurance coverage and inclusion.

The coping mechanisms adopted by households in this study to avert or reduce adverse consequences of health shocks were immediate but temporary measures.[17, 39] The informal coping strategies included depleting of saving, selling assets, borrowing, receiving financial assistance from friends and relations.[15, 17] The most common coping strategies found by this study to be dominantly adopted by both the rural and urban households to pay OOP for health care in the North-central Nigeria are use of savings, borrowing and depleting assets.

This study finds that only few people used health insurance as a financial protection strategy during health shocks in North central Nigeria, as a result of poor coverage of the health insurance scheme, and also because of low level of awareness of health insurance in both rural and urban communities. In addition, some respondents do not realize its importance; majority of the rural participants felt health insurance is only for civil servants. Surprisingly, some participants lost their health insurance status because they retired from the civil service, or because the Kwara State CBHI they were previously enrolled in was no more functional as at the time of this study. This high proportion of uninsured respondents is same as reported a similar study in South eastern Nigeria.[32] This differs from findings in a study in Ghana which showed that only about 30 percent of households in Ghana are not insured.[40 - 41]

This study found out that use of savings as a coping mechanism was more dominant in the rural communities. Also, in Malawi and Uganda, the rural households rely on savings as the single most common coping mechanism.[14] Another study observed that selling of assets was dominant among rural households in Enugu State.[24] In this study, the urban households adopted more of depleting of their savings; another study in urban communities of Enugu State also observed that use of saving was predominant among households during health shocks.[32] This is in line with a study in Kenya that found that illness or injury costs are mostly covered by savings.[42] For health insurance, urban households are found to utilize health insurance than rural households, this may be because urban dwellers are more educated and enlightened on health insurance.

Also, it may be because there are more civil servants in urban areas, and availability of more public and private hospitals hence increased access to health care than for the rural households.

Health shocks have diverse effects on households; the level of effect is crucially dependent on the ability of the households to smoothen against such. This study found that when households are struck with health shocks, they were unable to smoothen household consumption perfectly. It was noted that the first thing affected in the household is food consumption, this means households tend to reduce both the quality and quantity of food consumed so as to save more to pay health expenses for sick household member. This type of coping mechanism can cause ripple effects because households can become impoverished which can result in malnutrition which can reduce body immunity and result in more sickness and disease and further becomes a vicious cycle of ill health – impoverishment – malnutrition – disease.[17, 43-44]. The policy implication of this is that the government at all levels should ensure health care financing is a priority so as to reduce financial catastrophe experienced by households as a result of OOP payments. The government can revitalize the community-based health insurance scheme that was once functional in Lagos and Kwara State, as this will curb the poverty cycle experienced by households especially the rural households.

**Limitations**

There was recall bias on the amount spent for health shocks. The study was limited to Kwara and Nasarawa States due to limited budget and time. However, these did not undermine the findings in this research.

**Conclusions**

The occurrence of health shocks in households is barely supported by the present health insurance scheme because of the alarming high rate of OOP involved in healthcare financing in Nigeria. This catastrophic financial experience by many households has deteriorated their health outcomes, economy and wellbeing. Financial protection in terms of health insurance will reduce the financial hardships faced by households when they experience health shocks especially among the rural and vulnerable populations.

It is recommended that Public Private Partnership (PPP) model for health insurance, CBHI and increasing fiscal space for healthcare should be explored and utilized. There is therefore an urgent need for the government to expand the scope and coverage of health insurance with focus on rural populations, the poor or vulnerable, the unemployed, and the informal sector so as to smoothen the relationship between health shocks and health insurance as this could be the only viable stepping stone towards achieving UHC in Nigeria.

**Competing interest**

The authors declare that they have no competing interests.

**CODES OF QUALITATIVE ANALYSIS**

FUE – Female rural Elemere
FRO - Female rural Osin
FRBu - Female rural Buku
FRG - Female rural Gruku
FRB - Female rural Babanloma
FUA - Female rural Agbo-oba
FUSH – Female urban Share
FUS – Female urban Shao
MRE –Male rural Elemere
MRB – Male rural Bruku
MRBu – Male rural Buku
MRG – Male rural Gruku
MRO – Male rural Osin
MUA –Male Urban Akwanga
MUSH – Male Urban Share
MUS –Male Urban Shao

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