KNOWLEDGE AND PERCEPTION OF RURAL COMMUNITIES IN ABUJA NIGERIA ON COMMUNITY BASED HEALTH INSURANCE SCHEME

A Case Study by Ms.Christiana Ogben, Nigeria
(Masters in Public Health Student of Texila American University)
Email:-macahazel@yahoo.com

ABSTRACT

Accessing the knowledge and perception of healthcare consumers towards community based health insurance scheme (CBHIS) is valuable in investigating the implementation of the scheme. This study aims to evaluate the knowledge and perception of healthcare consumers towards CBHIS since its inception in FCT. A cross-sectional survey was used on a sample size of 287 for this study. Data was collected through paper-based questionnaire and analyzed through SPSS. Findings imply that there was a high level of awareness of CBHIS among the study population but little knowledge of how the scheme is financed. Satisfaction level was significant to household size ($p<0.001$).

KEYWORDS

Rural Communities, Health insurance, Abuja, Consumer, Federal Ministry of Health, Perception

INTRODUCTION

Access to healthcare is severely limited in Nigeria. (Otuyemi, 2001) this may be due to inadequate facilities or inabilities of the consumer to pay for the services as well as the health care provision that is far from equitable. As far back as 1988, estimates from the Federal Ministry of Health and the Social Services show that not >35% of the population had access to modern health care services. Also, allocations to the health sector by the Federal Government have always been quite low. For instance, between 2000 and 2004, an average of 3.52% of the entire budget of the government was spent on health (Ngowu *et al*., 2008; Felagan, 2008), leaving a noticeable gap of 1.46% from the recommendation of the World Health Organisation (WHO).

In recent years there has been a trend for many developing countries to move towards a new or expanded role for various forms of health insurance schemes as a form of health care financing

in order to attain universal coverage and Nigeria is not excluded (Wagstaff, 2010). The community based health insurance scheme (CBHIS) which is a non-profit health insurance programme for a cohesive group of households/individuals or occupation based groups, formed on the basis of ethics of mutual aid and the collective pooling of health risks in which members take part in its management (Carrin *et al*., 2005; Kamau and Njiru, 2014). The scheme operates on the principal aim to reduce the high dependency on out-of-pocket (OOP) payments which accounts for more than 65% of all health expenditures in the form of user charges and co-payments, which disproportionately affect the poorest in society and has been recognized as an important tool for making health care affordable among the poorest. (McIntyre *et al*., 2008; Sapehri *et al*., 2006; Jutting, 2001).

A good number of developing countries have been seen to implement the Community Base Health Insurance Scheme. (Kamau and Njiru, 2004; Noubiap *et al*., 2013; Jehu-Appiah *et al*., 2012; Basaza *et al*., 2010; Allegri *et al*., 2006) but unfortunately, little attention is been paid to understand consumer's knowledge and perception in relation to the implementation of CBHIS, this can partly be attributed to consumers dissatisfaction and low enrollment in the scheme in some of the countries the scheme in being implemented (Allegri *et al*., 2006; Benneth *et al*., 2004). CBHIS was in the Federal Capital Territory (FCT) in 2010 by the FCT Health and Human Services Secretariat in collaboration with the Millennium Development Goals to tackle the inequality of access to healthcare by rural communities in the federal capital territory and to meet MDGs goal 3 and 4 and this study aims to evaluate the knowledge of health care consumers about the scheme since the implementation and to get their perspective of the scheme in an attempt to know how the scheme has met their expectation and plan for future scaling up of the scheme.

AIMS AND OBJECTIVES

Gwagwalada area council is one of the six area councils in the FCT having a majority of its working population in the informal sector and lives in rural communities. The aim of this study is:

1. To evaluate the knowledge of healthcare consumers towards CBHIS since its inception in the rural communities in the area council.
2. To access healthcare consumer's perception in rural communities toward the scheme.
3. To determine the level of satisfaction of healthcare consumers in the communities

The result of this study will help the FCT Health and Human services secretariat to plan for future scaling up and sustainability of CBHIS in an attempt to achieve universal coverage.

LITERATURE REVIEW

RESEARCH QUESTION

What is the knowledge of healthcare consumers towards CBHIS since its inception in the rural communities in Gwagwalada area council of the FCT and what is their perception toward the scheme's continuity and future scaling up?

SEARCH STRATEGY

The search for literature was limited to published journals and articles that had information on knowledge and perception of healthcare consumer towards CBHIS.

The following MeSH terms were used: community based health insurance scheme, Nigeria, knowledge, perception, healthcare utilization, Africa, awareness and household. The MeSH terms were combined into search set as follows: knowledge and perception of CBHIS, healthcare utilization and household perception of CBHIS, CBHIS in Africa, and awareness of CBHIS in Nigeria. Search was limited to literature from Nigeria dated 2004 till present.

LITERATURE SEARCH

The search for studies was conducted involving two approaches: searches in electronic databases on the Internet and reviews of reference lists of relevant papers. The databases searched were the following: ScienceDirect (Elsevier), BioMedCentral, Oxford University Press, Leeds Metropolitan University Online Library and The John Hopkins University Press. In addition to these databases, searches were made on the web pages of international organizations such as the World Bank, the WHO and UNICEF.

An initial search was conducted using a combination of the following MeSH terms: community based health insurance scheme, Nigeria, knowledge, perception, healthcare utilization, awareness and household. The initial search produced a more than a thousand articles on related search terms. To reduce the number of articles, refined searches were carried whenever possible by imposing restrictions such as year of publication and geographic location on searchable objects. After the electronic search, a total of 60 separate articles were identified and reviewed for final selection.

INCLUSION AND EXCLUSION CRITERIA

A number of studies were excluded on account of scant information on CBHIS and methodology. Criteria for inclusion were that papers should report analysis of CBHIS by healthcare consumers in communities, community knowledge and perception or preferences for the scheme. The process resulted in a total of 24 separate studies selected for inclusion in the literature review. 22 articles were published in international journals while 2 were health research articles.

SUMMARY OF REVIEW

Government and communities in Sub-Saharan Africa are eager to implement the CBHIS scheme as it promises a glimpse of hope to the unending health inequality affecting most especially the rural part of the region, providing a means of achieving universal health coverage and this eagerness has resulted in the spread of CBHI schemes. (Mulupi *et al*., 2013; WHO, 2010) Though CBHIS is relatively new and covers a small proportion of the population, their role in health financing is expanding as the number of schemes has grown from 76 in 1997 to 800 in 2004 in West Africa. (Gamble-Kelley *et al*., 2006; Jehu-Appiah *et al*., 2012). Nigeria as a country has in the past 10 years seen the implementation of CBHIS in states like Anambra, Ogun, Kwara and FCT (Onwujekwe *et al*., 2009).

Despite increasing support and spread of CBHIS as reported in several studies across Africa (Kamau and Njiru, 2014; Mulubi *et al*., 2013; Odeyemi, 2013; Banwat *et al*., 2012; Uzochukwu *et al*., 2009; M De Allegri *et al*., 2006; Ekman, 2004; Juttin, 2004), enrolment has remained low (Basaza *et al*., 2008; Robyn *et al*., 2012; Dong *et al*., 2004) indicating that CBHIS has continued to fail to reach satisfactory levels of participation amongst targeted population, this could be as a result of poor awareness and sensitization to the targeted population and a lack of understanding of their expectation of the scheme (Jean Jacques N Noubiap et al. 2013; Agyei-Baffour *et al*., 2013; M De Allegri *et al*., 2006; Mulupi *et al*., 2013; Onwujekwe *et al*.,2013; Dixon *et ali*., *2013*).

It is however believed that CBHIS increases access to health services through it benefit package and reduced out-of-pocket payment for health care services as the ability to access cash to pay for immediate health care needs can be very difficult for rural communities whose income flows tend to be uncertain, thereby encouraging timely use of health care facility. (Smith and Sulzbach, 2008).

Payment for CBHIS scheme varies across countries of Africa and this factor has been reported in four cross sectional studies as an important factor determining enrolment into CBHIS. (Juttin, 2004; Jean Jacques N Noubiap *et al*., 2013; Mulupi *et al*., 2013; Kamau and Njiru, 2014) and subsequent drop out of the scheme by already enrolled members (Jehu-Appiah, 2012; M. De Allegri *et al*., 2006).

The payment for FCT CBHIS is so minimal that a nuclear family of 6 pays the sum of ₦1500 and an additional ₦300 for any additional member of the family. A subsidy from the government is however added to the premium paid in order to provide quality services to the enrollees. This system of payment has made it easy for the community members to be enrolled as against the preferred monthly payment system reported in a study by Jean Jacques N Noubiap et al. 2013.

According to WHO, little attention is being paid to understanding consumers' preferences in the implementation of CBHIS across the world and the case is not different as only few studies were found to have recently accessed consumers knowledge and perception in CBHIS in Africa (Kamau and Njiru, 2014; Mulupi *et al*., 2013; Jean Jacques N Noubiap et al. 2013; *Afolabi et* al., 2013 M. De Allegri *et al*., 2006) and one found in Plateau state, Nigeria in which result from of the study showed that 71% had good knowledge of CBHIS through mass media (Banwat *et al*., 2012), however, there is paucity in the result of this study as there is no recorded CBHIS scheme in the community and the entire state where this study was carried out. The other study found in Nigeria which evaluated the benefit healthcare consumers are willing to pay for if CBHIS was eventually introduced excluded the communities in which CBHIS has been piloted in the study (Onwujekwe *et al*., 2010)

GAP IN LITERATURE REVIEW

Accessing the knowledge and having a clear understanding of perception of healthcare consumers is valuable in investigating the implementation of any health intervention (Mohammed *et al*., 2013), however, no study have evaluated the knowledge and perception of community members of CBHIS in Abuja where the scheme has been operational since 2012.

METHODOLOGY

RESEARCH CONTEXT

Gwagwalada area council is one of the six Local Government Area Councils of the Federal Capital Territory of Nigeria. It has an area of 1,043 km² and 104 communities which has an estimated 50,867 households and 201,496 members' population. Majority of its working population are in the informal sector dwelling in rural communities and involve in fadama farming which is the main economic activity in the area. Due to the difficult and remote terrains and poor access of the communities in the area council, provision of healthcare is limited with only 29 communities having Primary Healthcare Center (PHC) provided by the government out of the 104 communities (FCT Demographic and Household survey tool, 2011).

CBHIS is been implemented in this area council and enrollment into the scheme is voluntary. The unit of enrolment is the household with a yearly premium set at ₦1,500 and members are provided with an ID from the health maintenance organization for access of healthcare. Membership is renewable on a yearly basis and gives right to a wide range of first-line and second-

line medical services with no co-payment at point of delivery. Subsidy is however paid by the government to help provide quality service because the premium is too low.

Service delivery in the scheme is through the PHC in the community that provides basic curative and preventive healthcare services. The benefit package includes treatment of common endemic diseases, immunization, maternal and child care services and health promotion. All the services are available to both CBHIS card carrying members and non- members but the latter have to pay out of pocket unlike members who pay through premium. Monthly capitation is paid by the health maintenance organization to the clinic and management of funds is through the locally formed board of trustee supervised by a state government staff.

STUDY DESIGN

A descriptive cross sectional study design was used in this study because the study involves describing the knowledge and perception of rural communities in Gwagwalada area council therefore exploratory or hypothesis testing research design will be inappropriate. This research design was chosen for the following reasons;

1. The rigid nature of the design which does not encourage bias and maximizes reliability as oppose to exploratory design.
2. A sample size is required to carry out this kind of study and probability sampling technique is used to choose the sample which ensures that the sample chosen is a true representative of the entire population and therefore result of this study can be applied to the entire population. This is a big advantage over exploratory study design which uses non-probability sampling and encourages bias.
3. The study makes use of structured and well defined instrument for collection of data and method of data analysis is preplanned before collection of data.
4. This study design is budget friendly (Kotari, 2004).

.

SAMPLE SIZE

Sample size calculation used based on Williams Cochran's method for cross sectional survey (Cochran, 1977). In order to achieve a confidence interval of 95% and a power of 80% and to be able to detect a margin of error of 5%, the study sample size was calculated based on the estimated prevalence rate of knowledge of CBHI of 25% (Jean Jacques N Noubiap et al. 2013) and that there are 50,867 households in Gwagwalada.

The formula used was:

$$n = \frac{n_0}{1+ (n_0/N)} \quad \text{and} \quad n_0 = \frac{z^2 P(1- P)}{d^2}$$

N = Total number of eligible households in Gwagwalada CBHIS catchment area (50,867)

n_0 = Initial sample size

n = True sample size

p = estimated prevalence rate of knowledge of CBHIS (25%)

d = Margin of error (0.05)

z= Confidence interval (Z score for 95% CI = 1.96)

$$n_0 = \frac{1.96^2 * 0.25(1 - 0.25)}{0.05^2} = 288.1$$

$$n = \frac{288.1}{1 + (288.1/50,867)} = 286.5$$

Assuming a non-response rate of 5%, the required minimum sample would be 300.8 households.

SAMPLING METHODOLOGY

To identify the individual households to participate in this survey, the FCT demographic and household survey listing of households was used as a sampling frame. The first household was identified randomly, after which a systematic random sampling was applied to identify the subsequent household until the required sample was obtained. Questionnaires were administered to household heads or their spouses, and in their absence, another senior household member. Eligibility of the individual household included in this survey was individuals aged 18 years or more, consenting and willing to respond to an interview.

SAMPLING PLAN PROBLEM

Some community members were not happy because their households were not selected for the interview while some household heads were unwilling to present themselves for interview which they considered waste of time that is supposed to be spent on the farm. The help of the community chief and the PHC head was employed to gain easy access to the community members.

DATA COLLECTION

Data collection was through face-to-face interviews using a structured pretested questionnaire that contained both coded and open-ended questions administered to randomly selected household heads. The choice if household heads is because traditionally and in local context, they take key decisions in the house including decision to seek healthcare or to be enrolled in the CBHIS (Allegri *et al*., 2006)

MEASUREMENT OF STUDY VARIABLES

The first part of the questionnaire was designed to capture data on socioeconomic conditions such as age, sex,

marital status, level of education, religion, monthly household income, main source of income and household size. The second part of the questionnaire evaluated their knowledge on CBHIS depending on whether or not the respondent had heard of a CBHIS and classified as "aware" or "unaware", “enrolled” or “not enrolled” and whether or not they have benefitted from the scheme in terms of service delivery. Only the knowledge of those who were aware of CBHIS will be evaluated. The third part of the questionnaire evaluated community perception of CBHIS in terms of willingness to be involved in the scheme, satisfaction with service delivery, and payment of premium. Face-to-face interviews were used in order to avoid eliminating potential participants with low levels of education and participants who are unable to read and write. An interpreter was also used to translate response from their local gbagyi languae to English language.

DATA ANALYSIS

Data collected was analyzed using the Statistical Package for Social Science (SPSS) version 14.0 Descriptive statistics will be employed to describe the socio-economic characteristics of respondents and to examine the determinants of awareness of the scheme. Continuous variables will be described using means with standard deviations, and categorical variables using frequencies and percentages. The Chi-square test or its equivalents will be used to compare qualitative variables and a p value less than 0.05 considered statistically significant.

OUTCOME INDICATOR

Health care consumers in the community were evaluated on their knowledge of CBHIS since it became operational and their perception toward the scheme. The percentage of community members that are well knowledgeable and have a high level of satisfaction with healthcare providers in CBHIS will serve as a proof of evidence about the success of the scheme and motivate policy makers to scale up CBHIS in FCT

TIME FRAME

The study started March 1st 2014 and was expected to end 5th September 2014. Below is a gnat chat showing the timeline for the study;

Activity	Person Responsible	March	April	May	June	July	August	September
Develop project topic	Student							
Draft project proposal	Student							
Write & Submit proposal for approval	Student							
Draft & Submit Ethical proposal	Student							
Data collection	Interviewer							
Data analysis	Researcher/student							
Review findings with local Guide	Student/Guide							
Review drafted report with local Guide	Student/Guide							
Write final project report	Student							
Submit project to the Faculty	Student							

FIGURE 3.1. TIMELINE FOR PROJECT WORK

ETHICAL CONSIDERATIONS

Before collection of data, approval will be obtained from the FCT CBHIS Secretariat and Head of Department for health in Gwagwalada area council. Informed consent of each respondent will be sought by the researcher before each interview. The nature of the study, participant status, benefit of the study and confidentiality issues will be made clear to the respondents before obtaining their consent. The result of data collection and analysis will be encrypted in my personal computer with a password accessible to only me and the hard copy of the questionnaire will be locked in a box and destroyed after graduation from Texila or publication of the research in a journal.

LIMITATION OF STUDY

The Limitations of this research study is listed below:

1. My involvement in administration of questionnaires to evaluate the knowledge and perception of CBHIS may be a form of bias because I work with United Healthcare Intl which is the health maintenance organization that manages the CBHIS in FCT and most of the respondents who are enrolled in the scheme know me personally, they may not want to give their honest perception of the scheme. An external interviewer was therefore hired to eliminate this bias and this stretched the budget of the study.

2. The season of the year in which data was collected also posed a limitation because the rainy season is the planting season and most of the community dwellers are farmers, therefore little attention was paid to the interviewer who was seen as taking their time meant to be spent in the farm.

RESULT

A total of 301 questionnaires were distributed out of which 287 were properly filled and returned, this amounts to a response rate of 95.4 % and equals the originally calculated required sample size and so the data presented is based on the response of 287 respondents.

The socio-demographic characteristics of the 287 respondents is found in **Table 1** with 115(40.1%) in age group 30-39 years and the least 35(12.2%) in age group 20-29 years. There were 175(61%) male respondents. Islam was practiced by 143(49.8%). Gbagyi ethnic group were 151(52.6%). The married respondents were 236(82.2%) of the population. The mean household size was 6.5 and ranged from 4 to 21 with 190(66%) having household size of 6 and above. Only 22(7.7%) had secondary/tertiary education while 173(60.35) never had formal education. Farming is the predominant occupation of the study population, posing as source of income to 140(48.8%), 60(20.9%) of the respondents didn't have any source of income and only 13(4.5%) have their income from livestock rearing. About 175(63.4%) earn below the country's minimum wage of 18,000 naira. Respondents were categorized into 5 using wealth quintile.

Table 2 shows the respondent's knowledge and awareness of CBHIS. In all, 242(84.3%) were aware of the existence of CBHIS. Among the respondents who were aware of CBHIS, 115(47.5%) was through community sensitization, 13(5.4%) and 68(28.1%) were through radio and close relatives respectively. Table 2 also shows that 186 (76.9%) of the respondent have the knowledge that only the enrolled individual pay for the CBHIS and the premium paid is enough to provide healthcare for a one year period. In all, 54(22.3%) have the knowledge that the enrolled individual pays their premium which is only a part of the total cost needed to provide care while the government pay the rest in form of subsidy.

Table 1: Socio-demographic characteristics of the study population (N = 287)

Socio-demographic characteristics	Frequency	Percentage
Age group in years		
20-29	35	12.2
30-39	115	40.1
40-49	87	30.3
50+	50	17.4
Sex		
Male	175	61.0
Female	112	39.0
Religion		
Christianity	121	42.2
Islam	143	49.8
Traditional	23	8.0
Ethnic group		
Igbo	6	2.1
Hausa	94	32.8
Fulani	36	12.5
Gbagi	151	52.6
Marital Status		
Single	10	3.5
Married	236	82.2
Divorced	14	4.9
Widowed	27	9.4
Level of Education Completed		
No formal Education	173	60.3

Primary	92	32.1
Secondary/Tertiary	22	7.7
Household size		
≤5	97	33.8
≥6	190	66.2
Main source of income		
Farming	140	48.8
Livestock	13	4.5
Paid employment	32	11.1
Small business	42	14.6
No source of income	60	20.9
Monthly Income in naira(n=276)		
<18000	175	63.4
≥18,000 and above	101	36.6
Wealth index		
Poorest	58	20.2
Second quintile	58	20.2
Middle quintile	56	19.5
Forth quintile	58	20.2
Richest	57	19.9

TABLE 2: KNOWLEDGE AND AWARENESS OF CBHIS

Variable	Frequency	Percentage
Awareness of CBHIS (n= 287)		
Yes	242	84.3

No	45	15.7
Awareness medium (n=242)		
Radio	13	5.4
Health center	46	19.0
Close relative	68	28.1
Community sensitization programs	115	47.5
Knowledge of who pays for CBHIS (n= 242)		
Enrolled family	186	76.9
Government	2	0.8
Government and enrolled individual	54	22.3

Enrollment status of sample population is presented in *Table 3*. The total number of respondent that were aware of the scheme was 242 out of which 152(62.8%) enrolled into the scheme. 126(82%) of those enrolled also enrolled their dependents while 26(17.1%) did not enroll their dependents. Only 54(35.5%) have enrolled to the scheme for more than one year. Annual payment of health insurance premium was preferred by 91(59.9%) of enrolled respondents while only 138.6% preferred to pay quarterly. A greater number of the respondents were new to the scheme as 74(48.4%) were not due for renewal of their healthcare premium. However, 51(33.3%) had renewed their premium and only 28(18.3%) who were due for renewal had not yet renewed their premium. Willingness to renew healthcare premium was shown by 129(84.3%) of the enrolled population while 20(13.1%) were not sure if they will renew or not and 4(2.6%) were not willing to renew.

Table 3: Enrolment into CBHIS

Enrolment status	Frequency	Percentage
Enrollment in CBHIS (n=242)		
Yes	152	62.8
No	90	37.2
Dependants enrollment CBHIS (n=152)		

Yes	126	82.9
No	26	17.1
Period of membership		
< 6months	8	5.3
6 - 12 months	90	59.2
13 - 24 months	54	35.5
Preferred mode of payment		
Monthly	27	17.8
Quarterly	13	8.6
Bi-annually	21	13.8
Annually	91	59.9
Renewal of premium		
Yes	51	33.3
No	28	18.3
Not due for renewal	74	48.4
Willingness to renew premium		
Yes	129	84.3
No	4	2.6
Undecided	20	13.1

Figure 4.1 is a bar chart showing respondent's reason for enrolling into CBHIS. More than half of the respondents 92(60.1%) enrolled in the scheme because they perceived it to be a cheap way to access healthcare, 49(32%) enrolled because they felt the scheme will help them prevent out of pocket spending for healthcare while 7(4.6%) and 5(3.3%) enrolled to stay healthy and get timely treatment respectively.

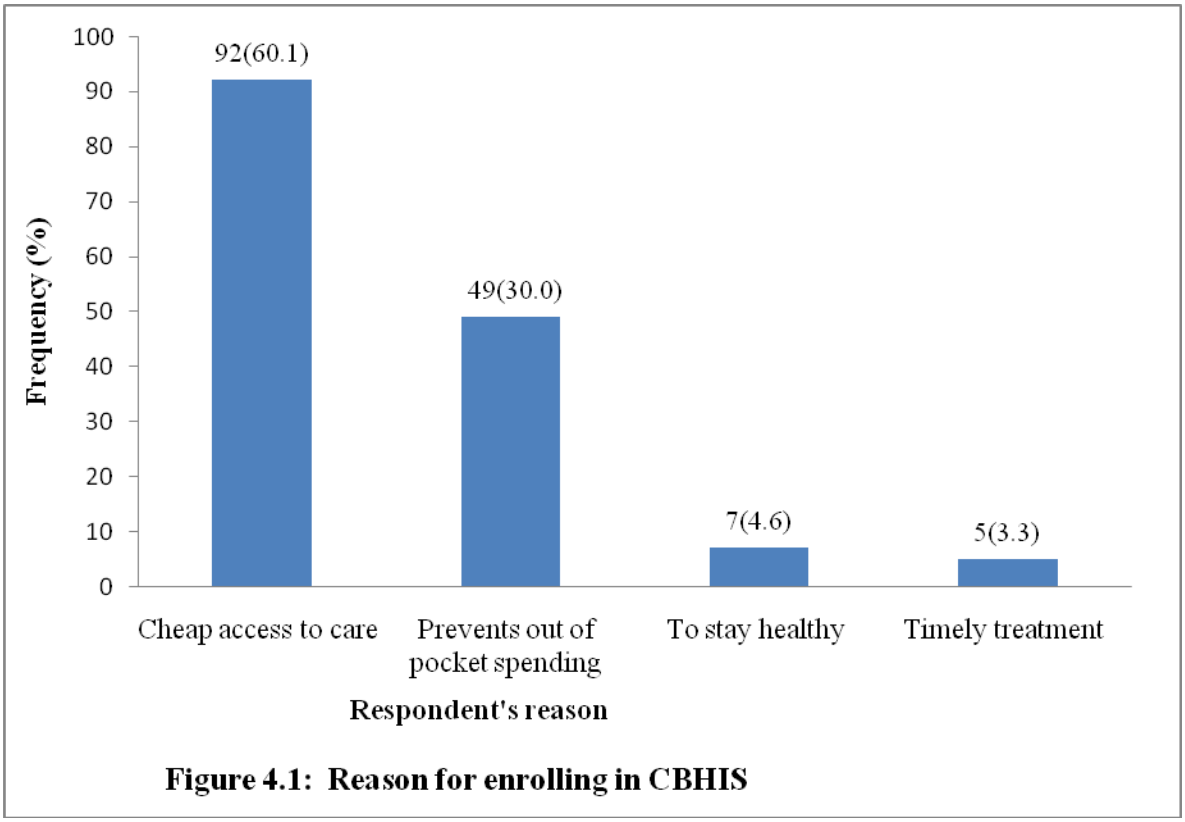

Figure 4.1: Reason for enrolling in CBHIS

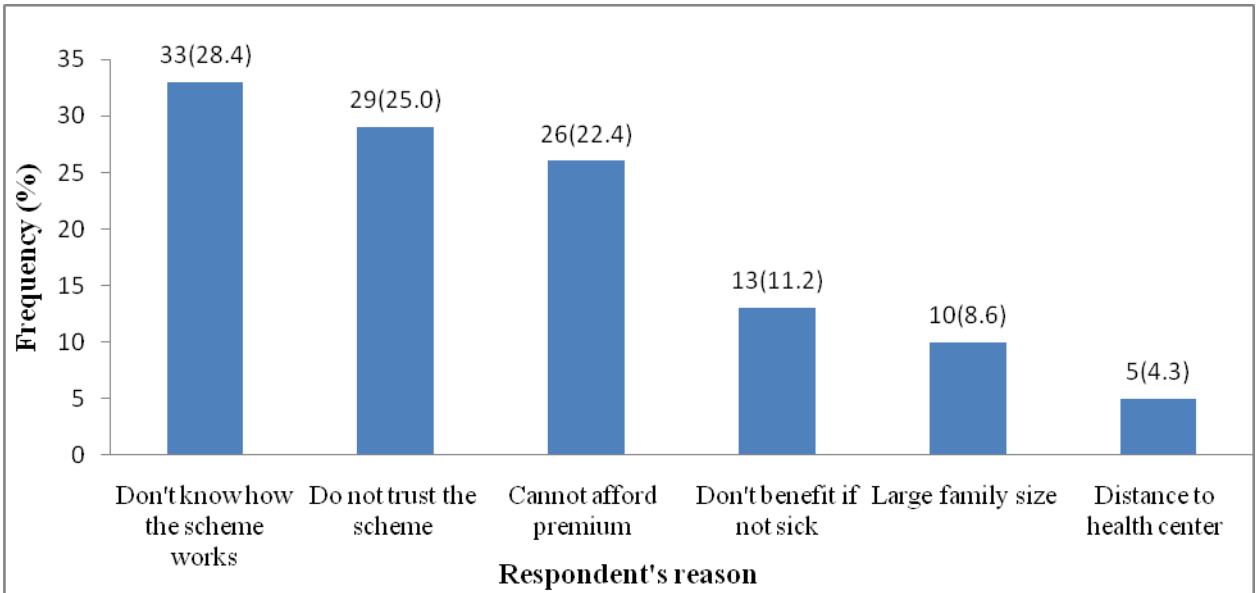

Figure 2: Reason for not enrolling in CBHIS

Figure 2 is showing the reasons why 116 of the respondents who were aware of CBHI did not enroll. As seen in figure 2, 33(28.4%) of those aware of the scheme did not enroll themselves or their dependents because they had no proper understanding on how the scheme works, 29(25%) did not trust the scheme. Those who couldn't afford the premium needed to be paid for them to enroll into the scheme were 26(22.4%). The reason why13 (11.2%) refused to enroll was because they don't see how they benefit when do not fall sick at the end of their cover period. Only 10(8.6%) could not register because they had large family size and 5(4.3%) because of distance to the healthcare center.

Table 4: Experience with healthcare provider (HCP)

HCP experience	Frequency	Percentage
Healthcare provider (n=242) Community PHC	201	83.1
Private Clinic	18	7.4
Traditional healer	8	3.3
Home	15	6.2

Use of PHC services Yes	193	79.8
No	49	20.2
Frequency of PHC services per year (n=193)		
< 5	31	16.1
5 - 10	93	48.2
10 – 20	69	35.8
Last visit to PHC < 2months ago	40	20.7
2 - 5 months ago	68	35.2
5 - 10 months ago	65	33.7
10 - 20 months ago	20	10.3
Referral to another healthcare provider (n=211)		
Yes	77	36.5
No	134	63.5
Referral facility (n=77)		
State Hospital	31	40.3
General Hospital	46	59.7

Data on respondent's experience with HCP is presented in *table 4* and shows that 201(83.1%) receive healthcare from the community primary healthcare center (PHC) and only 8(3.3%) use the services of the traditional healer. Out of 201 respondents that receive healthcare from the PHC, 193(79.8%) had used the services of the PHC since the inception of the scheme. Likewise, 93(48.2%) of the respondents used the services of the PHC 5-10 times and 31(16.1%) used it less than 5 year a times a year. In all, 68(35.2%) last visited the PHC about 2-5months ago with most recent visit of less than 2months ago by 40(20.7%) respondents. Only 77(36.5%) of respondents have been referred to another healthcare provider out of which 46(59.7%) were referred to the General hospital.

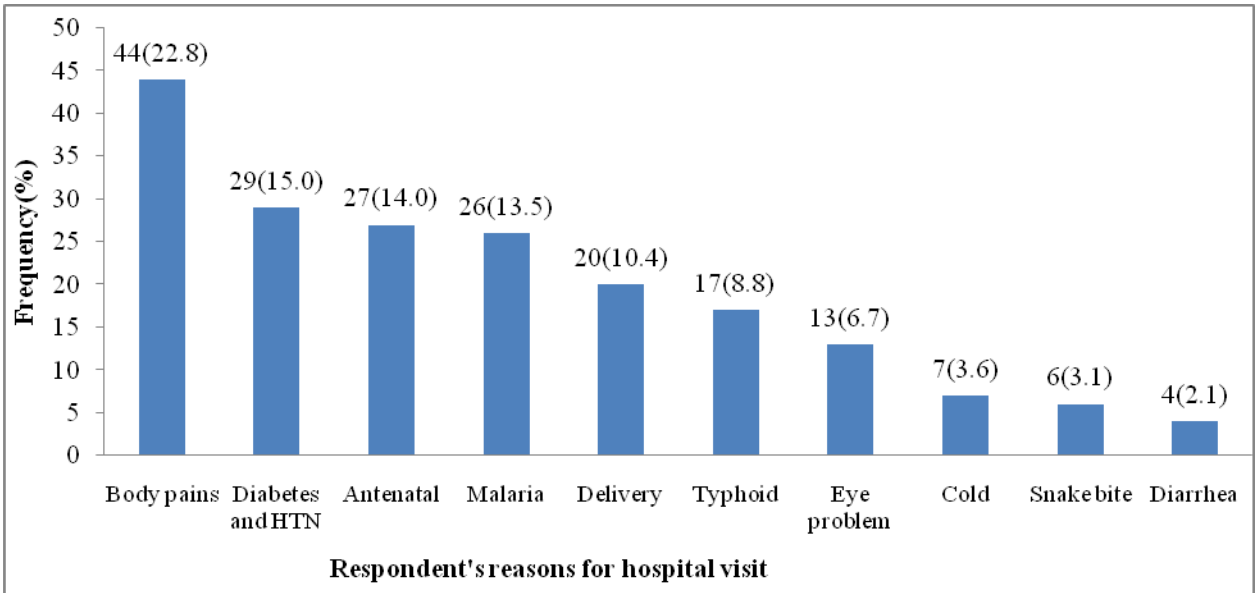

Figure 3: Respondent's reason for last visit to PHC

Figure 3 is a bar chart displaying respondent's reason for their last visit to PHC. Body pain was the reason why 44(22.8%) respondents visited the PHC. Diabetes & HTN was recorded as they reason why 29(15.0%) visited the PHC. Other reasons were antenatal care 27(14.0%) and malaria 26(13.5). Only 4(2.1%) visited the PHC because of diarrhea.

Table 5: Respondent's satisfaction with healthcare provider (HCP) services (n=225)

Satisfaction with HCP services	Frequency	Percentage
Drugs Provision		
Not satisfied	99	44.0
Satisfied	126	56.0
Hospital Services		
Not satisfied	104	46.2
Satisfied	121	53.8
Waiting time		
Not satisfied	94	41.8

Satisfied	131	58.2
Overall Satisfaction		
Not satisfied	101	44.9
Satisfied	124	55.1

Table 5 shows respondent's level of satisfaction with healthcare provider (HCP) services, 126(56%) were satisfied with the services that involved drug provision and dispensing. More than half of the respondents 121(53.8%) were satisfied with hospital services and 94(41.8%) respondents were not satisfied with the hospital waiting time. In all, 124(55.1%) were satisfied with the overall services provided to them by their HCP.

Table 6: Bivariate analysis of respondent's socio-demographic characteristics and satisfaction level.

Socio-demographic characteristics	**Satisfaction level**		**Chi square**	**p-value**
	Not satisfied (%)	**Satisfied (%)**		
Age Group in Years				
20-29	29 (85.3)	5 (14.7)		
30-39	45 (46.9)	51 (53.1)	33.77	<0.001
40-49	18 (32.1)	38 (67.9)		
>50	9 (23.1)	30 (76.9)		
Sex				
Male	23 (18.4)	102 (81.6)	79.77	<0.001
Female	78 (78.0)	22 (22.0)		
Religion				
Christianity	80 (77.7)	23 (22.3)	82.51	<0.001
Islam	21 (17.2)	101 (82.8)		
Ethnic group				
Igbo	4 (66.7)	2 (33.3)		

Hausa	20 (35.1)	37 (64.9)	3.95	0.267
Fulani	12 (44.4)	15 (55.6)		
Gbagyi	65 (48.1)	70 (51.9)		
Marital Status				
Single	6 (60.0)	4 (40.0)		
Married	78 (41.7)	109 (58.3)	6.96	0.073
Divorced	3 (37.5)	5 (62.5)		
Widowed	14 (70.0)	6 (30.0)		
Level of Education Completed				
No formal Education	76 (61.8)	47 (38.2)		
Primary	21 926.30	59 (73.8)	31.78	<0.001
Secondary/Tertiary	4 (18.2)	18 (81.8)		
Household size				
≤5	49 (62.8)	29 (37.2)	15.52	<0.001
≥6	52 (35.4)	95 (64.6)		
Monthly Income in Naira				
≤18000	73 (49.7)	74 (50.3)	6.27	0.012
>18,000	21 (31.3)	46 (68.7)		
Wealth index.				
Poorest	12 (48.0)	13 (52.0)		
Second quintile	44 (89.8)	5 (10.2)		
Middle quintile	17 (41.5)	24 (58.5)	37.77	<0.001
Fourth quintile	20 (36.4)	35 (63.6)		
Richest	8 (14.5)	47 (85.5)		

Bivariate analysis if respondent's socio-demographic characteristics and satisfaction level is presented in *table 6.* Among the respondents in age group 30-39 years, 51(53.1%) were satisfied

with HCP services while 45(46.9%) were not. Majority of respondents 29(85.3%) in age group 20-29 years were not satisfied with HCP services while only 5(14.7%) were satisfied, p<0.001. There was statistically significant difference between sex and level of satisfaction as more males 102(81.6%) were satisfied with HCP services and 23(18.4%) were not. Respondents that practiced Islam religion and were satisfied with the services of their HCP were 101(82.8%) as compared to only 23(22.3%) of respondents that practiced Christianity, p <0.001. with regards to level of education 18(81.8%) of the respondents with secondary/tertiary education were satisfied compared to 47(38.2%) of those who had no formal education, P<0.001. Households with ≥6 members were more satisfied with 95(64.6%) compared to only 29(37.2%) of households with ≤5members, p< 0.001. Considering monthly income 46(68.7%) earners of >₦18,000.00 were more satisfied with HCP than 74(50.3%) earners of≤ ₦18,000.00 monthly, this is statistically significant. Similarly, 47(85.5%) respondents in the richest wealth quintile were satisfied compared with only 13(52%) in the lowest category, p<0.001.

DISCUSSION

The objective of this study was to evaluate the knowledge and perception of healthcare consumers in rural communities in Abuja and also to determine their level of satisfaction with health care providers in the community health insurance scheme (CBHIS).

An analysis of data collected through structured questionnaire revealed that there was a high level of awareness of CBHIS among the study population through community sensitization programs organized by the drivers of the scheme in the FCT but little knowledge of how the scheme is financed.

The socio-demographic characteristics of the study population revealed that there were more respondents in the age group of 30-39 years. This could be because this age group holds the youth of the community who are more enlightened and actively involved in community development programs. Unlike the study carried out in rural East and West Africa (De Allegri *et al*., 2006; Kamau and Njiru, 2014) which recorded more female household heads in the study population. There were more male household heads in this study because in the Northern Nigerian context, the household heads are mostly males and it has been recorded that only 1 in 5 households are headed by female in Nigeria (NDHS 2013). About half of the study population practiced Islam religion and were of Gbagyi ethnic group as expected in rural setting of Abuja, Nigeria. As reported in some studies on CBHIS in Africa (De Allegri *et al*., 2006; Jehu-Appiah *et al*., 2012; Jean Jacques N Noubiap *et al*., 2013 Kamau and Njiru, 2014) most of the respondents in this study were married and had little or no formal education. Household size of more than 6 was seen in about 66% of respondent because the study was carried out in a rural area which records more household size than the urban area (NDHS 2013).

Awareness level of CBHIS in the communities under this study was high and can be attributed to the constant sensitization and awareness campaigns organized in the communities by the FCT Health and Human Services Secretariat combined with the brilliant collaboration with the FCT-MDGs office who has initiated various health and agricultural programs in the communities

before the introduction of CBHIS. This proves that the role of awareness and sensitization in CBHIS cannot be over emphasized. It gives an advantage to approach the rural community with a face they trust and are familiar with.

More than half of the household heads had enrolled themselves and their dependants. These figures are higher than the national health insurance scheme coverage level in Nigeria which is estimated as 5% of the population (Onoka *et al*., 2012). The study population saw the need to enroll in CBHIS as it provided cheap access to healthcare and prevents out of pocket spending but there was lack of knowledge of how CBHIS is financed in the FCT as 80% of respondents felt that the money they pay fully provides the health services they receive from the CBHIS and were not aware that the government pays a huge part of the cost of care in form of subsidy, without which the scheme will not be sustainable. Similarly, some of the respondents were not enrolled in the scheme because of lack of proper understanding of how the CBHIS works and were of the opinion that the enrolled individual or family be refunded the unutilized premium paid for healthcare at the end of the cover period. This finding is synonymous to results from a study where the study population had inadequate knowledge of financing CBHIS (Jean Jacques N Noubiap *et al*., 2013).

The price for health insurance was perceived to be high by some of the respondent this is because the study population were poor and 63.4% earn below the country's minimum wage of 18,000 naira from mostly farming coupled with the design of CBHIS that uses the family as a unit of enrollment which makes it difficult for the poor population to register themselves and their dependants. High price for health insurance being a barrier for rural communities to enroll into CBHIS was also reported in qualitative studies from Senegal, Uganda and Kenya (Jutting, 2001; Basaza *et al*., 2007; Kamau and Njiru, 2014). Another study went ahead to suggest possible premium exemption or waivers for the poorest of the community members as an assurance for equitable enrollment into health insurance schemes (Jehu-Appiah *et al*. 2010).

The primary healthcare center (PHC) the only public health facility in most rural communities and serves as the first point of healthcare contact to about 83% of respondents of this study when they fall ill but access to this PHC is actually limited as only 48.2% use the services of the PHC 5-10 times a year and just a few had been referred to the only general hospital in the area council. Presence of a healthcare facility in the community where the CBHIS is a critical factor for community members to be involved in the scheme but Gwagwalada area council where this study was conducted has PHC in only 29 out of 104 communities (FCT Baseline data on health services) and as expected, some respondents gave distance to PHC as their reason for not getting involved in CBHIS because they had to travel to a neighboring community to receive healthcare. This shows poor access and inequitable distribution of healthcare facilities and the people in the rural communities are disproportionately affected like in studies from some other African countries (Basaza *et al*., 2010; Robyn *et al*., 2012; Kamau and Njiru, 2014). Despite poor access to PHC, more than half of the respondents were satisfied with PHC services. This could be because people in this part of the country are ignorant of what their health rights are coupled with the failing health system and the community members perceived that some form of cheap health care is better than none at all.

Regarding satisfaction level and socio-demographic characteristics, older household heads were more satisfied ($p<0.001$) with PHC services. Reason being that this age group of household heads holds the vulnerable group and they use more of the services of the health center. Household size plays a significant role in respondent's satisfaction as respondents with larger households were more satisfied with their PHC ($p<0.001$). This is because the health insurance is cheap and has helped reduce the burden of out of pocket payment for their large household when they visit the health center uninsured. Higher income earners and respondents in the richest wealth quintile showed a significant positive level of satisfaction with healthcare services provided to them under the CBHIS ($P<0.001$). This high satisfaction level could be attributed to their ability to comfortably pay the premium for health insurance and can afford to pay for subsidized drugs outside the benefit package outlined in the CBHIS.

CONCLUSION

Findings from this study suggest that although there is a high level of awareness of CBHIS among the study population but there is misconception on how the scheme is financed as community members are under the impression that the premium paid provides the healthcare they receive under the scheme and are not aware of the subsidy paid by the government.

There exists a lack of understanding of the principle of risk pooling on which health insurance operates by the community who expects a refund for unutilized health premium. The community members perceive the CBHIS as affordable and protect them from out of pocket payment; the reason behind high enrolment. On the other hand, lack of understanding on how the scheme works, lack of trust and inability to pay premium were hindrances to becoming members of CBHIS by some community members.

Increased access to healthcare facility and improved quality of health services particularly in drug availability, infrastructure and hospital personnel will go a long way to sustain the existence of CBHIS. The Nigerian government needs to dedicate more resources to bridge the gap created by lack of health care centers in the community and improve the bad state of the existing ones in order to keep the CBHIS running and achieve universal health coverage.

RECOMMENDATION

Following results from this study, the following recommendations have been made to policy makers, government and any organization planning to execute a CBHIS program;

1. The FCT-CBHIS should carry out a proper feasibility study to determine what community members are willing to pay for their healthcare premium and possibly design healthcare premium for different wealth quintiles of the community.

2. Comprehensive awareness campaign should be carried put using various medium of awareness to reach out to the community members because people are likely to accept a program if only they understand key concepts and how the program actually runs
3. Other CBHIS programs should emulate the strategy used by the FCT-CBHIS to create awareness and acceptability of the scheme by going into the community through already established programs and people they trust.

REFERENCES

1.Afolabi, M. O., Daropale, V. O., Irinoye, A, I., & Adegoke, A, A., Health-seeking behaviour and student perception of health care services in a university community in Nigeria. *Health* 2013; (5) :817-824.

2.Agyei-Baffour, P., Oppong, R & Boateng, D. Knowledge, perceptions and expectations of capitation payment system in a health insurance setting: a repeated survey of clients and health providers in Kumasi, Ghana. *BMC Public Health* 2013, 13:1220

3.Banwat, M. E., Agbo, H. A., Hassan, Z., Lassa, S., Osagie, I. A., Ozoilo, J. U., & Ogbonna, C. Community based health insurance knowledge and willingness to pay; A survey of a rural community in North Central zone of Nigeria. *Jos Journal of Medicine*, 2012; (6): 1

4.Basaza, R., Criel, B., & Vander Stuyft, P. Community health insurance in Uganda: why does enrolment remain low? A view from beneath. *Health Policy*. 2008(87) 172–184. Doi:10.1016/j.healthpol.2007.12.008

5.Bennett, S. The role of community-based health insurance within the health care financing system: a framework for analysis. *Health Policy and Planning* 2004; 19(3):147-58.

6.Bjorn Ekman, 2004. Community-based health insurance in low-income countries a systematic review of evidence. *Health Policy and Planning*; 19(5): 249-270

7.Carrin, G., Waelkens, M., Criel, B. Community-based health insurance in developing countries: a study of its contribution to the performance of health financing systems. *Trop Med Int Health*. 2005; 10(8):799-811.

8.Carrin, G., Waelkens, M, P., & Criel, B. Community-based health insurance in developing countries: a study of its contribution to the performance of health financing systems. *Trop Med Int Health*. 2005; 10(8):799-811.

9. Cochran, W, G. Sampling techniques (3rd ed.). New York, NY: John Wiley and Sons, 1977.
De Allegri, M., Sanon, M., Bridges, J. and Sauerborn, R. Understanding consumers' preferences and decision to enrol in community-based health insurance in rural West Africa. *Health Policy* 76 (2006) 58–71.

10.Dixon, J., Tenkorang, E. Y. & Luginaah, I. Ghana's National Health Insurance Scheme: a national level investigation of members' perceptions of service provision. *BMC International Health and Human Rights* 2013, 13:35.

11.Dong, H., Kouyate, B., Snow, R., Mugisha, F. & Sauerborn, R. "Gender's effect on willingness to-pay for community-based insurance in Burkina Faso". *Health Policy* 64 (2003) 153 – 162

12.Falegan, I, J.(2008). "Healthcare financing in the developing world: is Nigeria's National Health Insurance Scheme a Viable Option?" *Jos Journal of Medicine* 3 (1).

13.Gamble-Kelley, A., Diop, F., & Makinen, M., "Approaches for scaling up community-based health financing schemes. Bethesda, MD: Partners for Health Reform Plus Project. 2006. Cambridge. Abt". Associates Inc. *PubMed.*

14.Ichoku, H,E., Fonta, W, M., & Ataguba, J, E., "Estimating the Willingness to Pay for Community-Based Health Insurance Schemes in Nigeria: A Random Valuation Framework". *The IUP Journal of Risk & Insurance*, 2010; (7) 1-2.

15.Jean, Jacques, N., & Noubiap, et, al.," Community-based health insurance knowledge, concern, preferences and financial planning for health care among informal sector workers in a health district of Douala, Cameroon". *Pan African Medical Journals*. 2013;16:17. Doi:10.11604/pamj.2013.16.17.2279

16.Jehu-Appiah, C., Aryeetey, G., Agyepong, I., Spaan, E., & Baltussen, R. Household perceptions and their implications for enrolment in the National Health Insurance Scheme in Ghana. *Health Policy and Planning* 2012; (27): 222–233. Doi:10.1093/heapol/czr032

17.Jutting, J, P., The Impact of Health Insurance on the Access to Health Care and Financial Protection in Rural Developing Countries: The Example of Senegal. Health, Nutrition and Population Discussion Paper. 2001. Washington. The World Bank.

18.Jutting, J, P., Do Community-based health insurance schemes improve poor people's access to health care? Evidence from rural Senegal. *World Development.* 2004; (32) 2: 273-288.

19.Kamau, Njoroge., & Njiru, Haron., Community based health insurance schemes: Lesson from rural Kenya. *Journal of Health Care for the Poor and Underserved.* 2014; 25(1): 192-203. DOI: 10.1353/hpu.2014.0023.

20.Kotari, C, R., 2004. Research Methodology; Methods and Techniques. 2nd Revised Edition. New Age Publisher, New Delhi, India. Pp 35-39.

21.McIntyre, D., Garshong, B., Mtei, G., et, al., Beyond fragmentation and towards universal coverage: insights from Ghana, South Africa and the United Republic of Tanzania. *Bull World Health Organ*. 2008;86(11): 871–876.

22.Mohammed, S., Bermejo, J. L., Souares, A., Sauerborn, R., & Dong, H. Assessing responsiveness of health care services within a health insurance scheme in Nigeria: Users' perspective. *BMC Health Services Research* 2013, 13:502 doi:10.1186/1472-6963-13-502.

23.Mulupi, S., Kirigia, D., & Chuma, J. Community perceptions of health insurance and their preferred design features: implications for the design of universal health coverage reforms in Kenya. *BMC Health Services Research* 2013; 13: 474. Doi:10.1186/1472-6963-13-474.

24.National Population Commission (NPC) [Nigeria] and ICF International. 2014. *Nigeria Demographic and Health Survey 2013*. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF International

25.Ngowu, R., Larson, J, S., & Kim, M, S. (2008). Reducing child mortality in Nigeria: A case study of immunization and systemic factors. *Social Sciences and Medicine* 67 (1): 161-164.

26.Odeyemi, Isaac, A, O. Community-based health insurance programmes and the national health insurance scheme of Nigeria: challenges to uptake and integration. *BMC Health Services Research* 2013; (2) 12: 237.

27.Onoka, C., Onwujekwe, O., Uzochukwu, B. & Ezumah, N. National Health Insurance Scheme in Nigeria: an analysis of constraints and enabling factors to adoption. Alliance for Health Policy and Systems Research. 2012.

28.Onwujekwe, O., Onoka, C., Uzochukwu, B., Nkoli, U. Nnnena, T., Eze, S., Kirigia, J. & Petu, A., Preferences for benefit packages for community-based health insurance: an exploratory study in Nigeria. *BMC Health Services Research* 2010, 10:162

29.Onwujekwe, O., Onoka, C., Uzochukwu, B., Okoli, C., Obikeze, E. & Eze, S. Is community-based health insurance an equitable strategy for paying for healthcare? Experiences from southeast Nigeria. *Health Policy* 92 (2009) 96–102

30. Parmar, D., De Allegri, M., Savadogo, G., & Sauerborn, R. Do community-based health insurance schemes fulfil the promise of equity? A study from Burkina Faso. Health Policy and Planning 2014; 29:76–84. Doi:10.1093/heapol/czs136

31. Parmar, D., Reinhold, S., Souares, A., Savadogo, G., & Sauerborn, R. Does Community-Based Health Insurance Protect Household Assets? Evidence from Rural Africa. *Health Services Research*, 2012 (47): 2

32.Robyn, P, J., Fink, G., Sié, A., & Sauerborn, R. Health insurance and health-seeking behavior: Evidence from a randomized community-based insurance rollout in rural Burkina Faso. *Social Science & Medicine* 75 (2012) 595- 603. Doi:10.1016/j.socscimed.2011.12.018

33.Sepehri, A,S., Sarma, W., & Simpson. Does non-profit health insurance reduce financial burden? Evidence from the Vietnam Living Standards Survey Panel. *Health Economics* 2006; 15(6):603-16.

34.Smith, K, V., & Sulzbach, S. Community-based health insurance and access to maternal health services: Evidence from three West African countries. *Social Science & Medicine* 66 (2008) 2460-2473. Doi:10.1016/j.socscimed.2008.01.044

35.Uzochukwu, B, S, C., Onwujekwe, O, E., Eze, S., Ezuma, N., Obikeze, E,N., & Onoka, C, A., Community Based Health Insurance Scheme in Anambra State, Nigeria: an analysis of policy development, implementation and equity effects. The Consortium for Research on Equitable Health Systems (CREHS) 2009.

36.Wagstaff, A. "Social Health Insurance Re-examined". *Health Economics* 2010, 19:503–517
World health report 2010 - Health systems financing: the path to universal coverage. Geneva: World Health Organization; 2010.