Urban Self-employed Social Health Insurance Program as an Option in Financing Health Care within the Informal Sector? An Insight into the Acceptability of the Scheme by the Self-employed in Rivers State, Nigeria

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the
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Article Information

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ABSTRACT

Introduction: Health care financing in the Nigerian health sector has been a major impediment within the sector due to increasing healthcare costs. Various forms of financing mechanisms are employed within the country with majority tilting to out-of-pocket payment, which led to the launch of the National Health Insurance Scheme in 2005. The National Health Insurance Scheme has the ambition to provide universal coverage to the population in 15-20 years, but the scheme had its limitations in achieving universal health coverage because it is limited to federal government civil servants neglecting the informal sector, which includes self-employed individuals. Although other forms of social health insurance scheme are being implemented within the country such as the Community Based Health Insurance Scheme. There is no sufficient evidence on the actualization of a health insurance program specifically for the self-employed despite its presence in the health

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insurance package known as Urban Self-Employed Social Health Insurance Program. This study aims to ascertain the perceived impact and acceptability of the Urban Self-employed Social Health Insurance Program as a viable option in financing healthcare among the self-employed.

Methodology: This was a cross-sectional descriptive study of 204 self-employed individuals who were selected from seven different trade associations in Port Harcourt using semi-structured interviewer-administered pre-tested questionnaires. A Socio-Economic Status index was used to divide the households into quintile. The respondents rated their perception about the possible benefits of health insurance from 1 (none) to 4 (high) and the willingness of respondents to enrol in a community-based health insurance scheme (elicited as a binary 'yes' or 'no' variable) was also used as a proxy of acceptability data collected were analysed using the statistical package for social science (SPSS), version 23 software.

Result: A majority 201 (98.5%) of the respondents perceived that having any form of insurance has the potential to improve access to health care and affordable. Respondents gave responses rated with an average mean of 3, which translates to medium impact on financial protection, improved access to healthcare, affordability and improving quality of treatment. Most respondents 183 (89.7%) accepted the urban self-employed health insurance scheme as a strategy for financing healthcare.

Conclusion: Urban Self-Employed Social Health Insurance Program appears to be a viable and acceptable method of paying for healthcare among the self-employed in Port Harcourt city of Rivers State, Nigeria.

1. INTRODUCTION

Health care financing in the Nigerian health sector has been a major impediment within the sector due to increasing healthcare costs. Various forms of financing mechanisms are employed within the country with majority tilting to out-of-pocket payment. Over-reliance on this non-pooled financing healthcare mechanism and the related absence of risk pooling confers the greatest economic burden on the poor due to its impoverishing effect on the poor [1].

In a bid to improve the financing structure within the health sector to attain universal coverage which has been defined by the World Health Organization as "all people and communities can use the preventive, curative, rehabilitative, health services they need, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship" [2]. The National Health Financing Policy articulates funding of health, recommended additional avenues of revenue such as health insurance schemes [3]. This recommendation was developed on the theory that availability of equitable and efficient revenue generation mechanisms, pooling and managing financial risks, protection of vulnerable groups and efficient healthcare purchasing arrangements will aid in attaining universal coverage [4].

This led to the launching of the National Health Insurance Scheme (NHIS) in 2005. This scheme has the ambition to provide universal coverage to the population in 15-20 years. It is unique and innovative in that it is government-driven but operated by private sector health-maintenance organizations (HMOs). This scheme had its limitation in achieving universal health coverage, where its coverage is being limited to federal government civil servants neglecting the informal sector, which includes self-employed individuals. Although other forms of social health insurance schemes are being implemented within the country such as the community-based health insurance scheme. There is no sufficient evidence on the actualization of a health insurance program specifically for the self-employed despite its presence in the NHIS package known as Urban Self-Employed Social Health Insurance Program (USSHIP). Similar to community-based health insurance scheme, USSHIP is a package in the NHIS specifically but not limited to self-employed individuals in Nigeria [5]. According to the scheme, this is a non-profit health insurance program covering groups of individuals with common economic activities handled by the members (NHIS, 2012). The participants of this program can choose their individual health care packages based on their individual needs. There is a flat contribution fee paid monthly by self-employed individuals, which is dependent by the type of plan chosen in the health insurance program [5].

Due to lack of employment within the country's informal sector, majorly the self-employed has

been the major employer of labor while contributing to over 50% of the gross domestic product of the country [6].

Even though the informal sector is an opportunity for generating reasonable incomes for many people, most informal workers are without secured income, employment benefits and social protection [6]. These self-employed individuals often face health-related shocks, such as unpredictable illnesses that weaken their health status. This results into a massive loss of income but also meager resources that have been in a hard way saved over a long period of time.

This study aims to ascertain the perceived impact and acceptability of USSHIP as a viable option in financing healthcare among the self-employed, by determining their acceptability of USSHIP in generating new policy. This knowledge would be relevant for policy makers to make informed choices in designing the program for successful implementation.

2. MATERIALS AND METHODS

2.1 Study Area

The study was carried out in Port Harcourt, which is the administrative and commercial capital of Rivers State, Nigeria [7]. From its small population of 235,098 in 1963, the total population in the area was last recorded at 1.5 million in 2014 [8]. A population projection for Port Harcourt was estimated from 2014-2017 with an annual growth rate of 3.46%. Using a population geometric model, an estimated population of 1,551,900 was gotten. It has a total size of 390 km^2 square kilometres [9]. English is the official language, but Ikwerre language is the major local language spoken in Port Harcourt city.

With the discovery of oil in commercial quantity in the region, the young city provided more economic opportunities for persons from all over the country [7]. This was the beginning of rapid migration into the area and has recorded an astronomical growth, which has created some growing concerns which include; leading to unplanned structures and poor drainage structure causing heavy over-flooding which displaces residents from their homes during the rainy seasons [7]. The availability of efficient transport network, access to the city by air, road, water, coupled with a good business environment (heavily industrialized), the city was quick to attract investment both in the formal and informal sector from all parts of the country [7].

Port Harcourt is the leading hub for medical services in Rivers State as primary health care centres are evenly distributed in every community within the city. Two tertiary healthcare centres also serve it. A vast number of private hospitals, clinics and other complementary healthcare providers which includes; patent medicine dealers, traditional medicine practitioners, traditional birth attendants, traditional bone setters and Christian based organizations are providing various healthcare services within the city.

2.2 Study Design

A cross-sectional study design was used with the data collected using semi-structured interviewer-administered questionnaire. The questionnaire was developed and modified with reference to existing tools used in a similar study [10].

2.3 Sample Size Estimation

The study was designed to detect alpha error at 5%, assuming a proportion of willingness to pay for community-based health insurance in South-East Nigeria of 86% [11]. Using the formula sample size determination for studying proportions in populations of less than ten thousand [11], the minimum required sample size was thus determined to be 188, but made up to 204 self-employed individuals in the study area, to take care of non-responses.

2.4 Sampling Method

A stratified sampling using proportionate size allocation was used to select respondents by their trade or line of occupation.

2.5 Data Collection Procedure

Three research assistants were recruited to participate in the data collection. The research assistants were selected from those residing in the study area with a minimum of secondary level of education, fluent in both English and had an understanding of a local language (Pidgin). The research assistants were taken through a one-day training which entailed; explaining the objectives and methodology, training on interviewing and communication skills, reading through all the questions and agreeing on a standard way of asking them and strategies on

establishing good rapport and understanding neutrality essential for obtaining complete and accurate data [12]. Face-to-face interviews were conducted with the aid of an interview schedule; this ensured consistency and reduced chances of extraneous variables. The duration of data collection lasted for a period of 2 weeks with a minimum of 20 mins per interview and 20 interviews per day.

Respondents were given a brief theoretical scenario of USSHIP before ascertaining their perception on the perceived impact and acceptability of the program. The respondents rated their perception about the possible benefits of health insurance from 1 (none) to 4 (high). The perceptions were with respect to; financial protection offered by health insurance, improved access to affordable services and stable household consumption patterns. The willingness of respondents to enroll in a CBHI scheme (elicited as a binary 'yes' or 'no' variable) was also used as a proxy of acceptability. Data were also collected on the demographic and socio-economic characteristics of the population.

2.6 Data Analysis

Data analysis was done using statistical Package for Social Sciences, (SPSS) version 23. Data was first cleaned, organized, coded then entered into the computer for processing. Descriptive statistics were conducted to describe the background characteristics of the respondents. Data was presented in this format; mean, frequency and percentage tables.

An asset based socio-economic status index was computed using principal component analysis, was developed from information on household ownership of assets such as; ownership of land, radio, car, television, air conditioner, bicycle, motorcycle, electric fan etc., were used to derive weights for the SES index. The SES index was used to differentiate the respondents into socio-economic groups and chi-square analysis was used to determine the statistical significance of the differentiation of the dependent variables into socio-economic groups.

3. RESULTS

Table 1 shows the socio-demographic distribution of respondents in respect to age, sex, marital status and religion, about one-third 79 (38.7%) of the respondents were between the ages of 21-30 years, 57 (27.9%) of the respondents were between the ages of 41-50 years, 52 (25.5%) were between the ages of 31-40 years, while 16 (7.8%) were >50 years of age. More than half 111 (54.4%) were males. A greater percentage of the respondents 121 (59.3%) were married. Most 157 (77.0%) of the respondents were of Igbo ethnic group.

Table 2 shows that over two-thirds 149 (73.8%) had completed only their senior secondary school education. A little more than half 71 (53.8%) of the respondents have between 1-2 children. Over two-thirds 137 (67.2%) of the respondents have a household size ranging from 1-4. The mean household size was 3.84±1.78. Half 104 (51.0%) of the respondents were male heads of the household; one hundred and forty-two (69.6%) were the main income earner. Most 141 (69.1%) of the respondents were the main decision-maker and over one-third 75 (36.8%) earned between ₦40001 - ₦80000 ($110.4 US - $220.7US) per month. The mean income per month was ₦87724.51 ± 41287.93 ($242 US) while the median income per month was ₦78,000 ($215.8 US). Amongst the respondents, 40 (19.6%) were within the poorest quintiles, 45 (22.1%) were within poor quintiles, 37 (18.1%) in the middle quintiles, 38 (18.6%) were within the rich quintile, while 44 (21.6%) were in the richest quintile.

Table 3 shows that majority 202(99.0%) of the respondents had no form of health insurance, while 2(1.0) had health insurance using National health insurance scheme as the type of health insurance they have with reasons for taking out the health insurance policy which ranges from access to affordable care to financial protection against cost of illness. Most 201(98.5%) of the respondents perceived that having any form of insurance has the potential to improve access to health care and affordable.

Table 4 shows that respondents gave rated with an average mean of 3 which translates to medium impact on financial protection, improved access to healthcare, affordability and improving quality of treatment.

Table 5 shows that the majority 183 (89.7%) accepted urban self-employed health insurance as a strategy for financing healthcare, while 21 (10.3%) did not accept it as strategy for financing healthcare. Reasons for not accepting among ranges from, 6 (28.5%) adverse selection, 2 (9.5%) (Lack of fund, lack of trust, reliability of the scheme, don't believe in English medicine) respectively, while 1 (4.8%) governments' job.

Table 1. Socio-demographic characteristics of respondents

Variable	Frequency (n = 204)	Percentage (%)
Age (years)		
21-30	79	38.7
31-40	52	25.5
41-50	57	27.9
>50	16	7.8
Sex		
Male	111	54.4
Female	93	45.6
Marital status		
Married	121	59.3
Single	72	35.3
Widowed	7	3.4
Separated/Divorced	4	2.0
Ethnicity		
Igbo	157	77.0
Ijaw	19	9.3
Ibibio	14	6.9
Yoruba	13	6.4
Hausa	1	0.5
Income per month (₦)		
≤40000	30	14.7
40001 – 80000	75	36.8
80001 – 120000	56	27.5
120001 – 160000	35	17.2
160001 – 200000	5	2.5
>200000	3	1.5
	Mean = ₦87724.51 ± 41287.93	
	Median = ₦78,000	
Socio-economic status (SES)		
Poorest	40	19.6
Poor	45	22.1
Middle	37	18.1
Rich	38	18.6
Richest	44	21.6

Table 2. Socio-economic characteristics of respondents

Variable	Frequency (n = 204)	Percentage (%)
Level of education completed		
No formal education	2	1.0
Primary	10	4.9
Junior Secondary	8	3.9
Senior Secondary	149	73.0
Tertiary	35	17.2
No of children (n = 132)		
1-2	71	53.8
3 – 4	40	30.3
5 – 6	21	15.9
House hold size		
1-4	137	67.2
5 – 7	65	31.9
8 – 10	2	1.0
Mean household size		**3.84±1.78**

Variable	Frequency (n = 204)	Percentage (%)
Household Status		
Male Head Of Household	104	51.0
Wife	53	26.0
Female Head Of Household	40	19.6
Husband	4	2.0
Household Representative	3	1.5
Main income Earner		
Yes	142	69.6
No	62	30.4
Main decision maker		
Yes	141	69.1
No	63	30.9
Income per month (₦)		
≤40000	30	14.7
40001 – 80000	75	36.8
80001 – 120000	56	27.5
120001 – 160000	35	17.2
160001 – 200000	5	2.5
>200000	3	1.5
	Mean = ₦87724.51 ± 41287.93	
	Median = ₦78,000	
Socio-economic status (SES)		
Poorest	40	19.6
Poor	45	22.1
Middle	37	18.1
Rich	38	18.6
Richest	44	21.6

Table 3. Perception on impact of USSHIP

Variable	Frequency (n = 204)	Percentage (%)
Any form of health insurance		
No	202	99.0
Yes	2	1.0
Type of health insurance (n = 2)		
NHIS	2	100.0
Reason for taking a health insurance policy (n = 2)		
Financial protection and access to affordable care	2	100.0
Do You Believe Access To Health Insurance Will Improve Access To Healthcare Services		
Yes	201	98.5
No	3	1.5
Do You Believe Being Enrolled Make Healthcare More Affordable		
Yes	201	98.5
No	3	1.5

Table 4. Rating on the perceived impact of USSHIP

Variable	Frequency	Mean rating	Standard deviation
Rating of urban self-employed health insurance on Financial Protection Against Cost Of Illness	204	3.05	0.423
Rating of urban self-employed health insurance on Level of Access To Affordable Healthcare	204	3.07	0.392
Rating of urban self-employed health insurance on Ensuring Healthcare Cost Are Reduced	204	3.07	0.371
Rating of urban self-employed health insurance on Improving Quality Of Healthcare Services	204	3.06	0.353

Mean rating 1 = none, 2 = low, 3 = medium, 4 = high

Table 5. Acceptability of USSHIP

Variable	Frequency (n = 204)	Percentage (%)
Is USSHIP Acceptable as a Strategy in paying for healthcare		
Yes	183	89.7
No	21	10.3
Reasons for not accepting USSHIP as a Strategy in Paying for Healthcare (n = 21)		
I Treat Myself, Can't Put Money Which I Might Not Use (Adverse Selection	6	28.5
Don't Believe In Bad Future	2	9.5
Don't Believe In English Medicine	2	9.5
Don't Like It	2	9.5
I Don't Plan For Bad Things	2	9.5
I Don't Trust The managerial process	2	9.5
Not Reliable	2	9.5
Lack Of Funds	2	9.5
I Don't Just Want To Accept	1	4.8
Government Is Supposed To Pay	1	4.8
The Area Is Not Civilized	1	4.8

Table 6. Willingness to enroll

Variable	Frequency (n = 204)	Percentage (%)
Willing to enroll self		
No	23	11.3
Yes	181	88.7
Reasons For Not Enrolling Self (n = 23)		
Lack of funds	15	64.1
Don't Believe In English Medicine	2	8.7
Don't Fall Sick	2	8.7
Lack Of Trust	2	8.7
Don't Understand How It Operates	1	4.3
Its Government Job	1	4.3

Table 7. Acceptability of USSHIP by socio-economic status

Variable	Poorest n(%)	Poor n (%)	Middle n (%)	Rich n (%)	Richest n (%)	χ2 (p-value)
Acceptability of USSHIP as a viable strategy for financing healthcare	38(95)	39(86.7)	30(81.1)	38(100)	38(86.4)	**9.538 (0.049)**
USSHIP will improve access to healthcare services	40(100)	42(93.3%)	37(100)	38(100)	44(100)	10.758 (0.29)
USSHIP will improve the affordability of healthcare	40(100)	42(93.3%)	37(100)	38(100)	44(100)	10.935 (0.27)
Willing to enroll self	37(92.5)	36(80.0)	28(75.7)	38(100)	41(93.2)	**15.367 (0.004)**

*statistically significant

Table 6 shows that majority of the respondents 181(88.7%) were willing to enroll into the scheme. Lack of funds 15 (64.1%) was the major cause of not willing among members into the scheme.

Table 7 shows that majority of individual when grouped by Socio-economic Status were willing to accept the USSHIP as a mode of financing healthcare specifically in the informal sector and it was statistically significant (p<0.05). Also

almost all of the individuals when grouped by Socio-economic Status willing to pay for USSHIP as a mode of financing healthcare specifically in the informal sector and it was statistically significant ($p<0.05$).

4. DISCUSSION AND CONCLUSION

Perception of the perceived impact of urban self-employed social among respondents in which majority were of the opinion that urban self-employed social health insurance program will have a positive impact in terms of financial protection against the cost of illness, improving access to healthcare and making healthcare more affordable thereby creating stability in their household expenditure pattern. USSHIP is accepted as a viable strategy in financing healthcare among self-employed individuals across socio-economic status. This implies if the health insurance program is implemented there is a likelihood of successful implementation.

This finding may be attributed to the perceived impact of the health insurance program in terms improvement in their level of access to quality healthcare services. The scheme was highly accepted across socio-economic status; this suggests equity in demand for all status, which describes health as a public good. A similar study in Nigeria found a higher 98% of the respondents accepted CBHI as a strategy for paying healthcare [13]. It is important to note that despite the acceptability of the health insurance program, few of the respondents decline its acceptance as a viable strategy for financing healthcare where it is perceived that paying a fee when one is healthy is an unnecessary economic loss. This finding resonates with a study in Tanzania, where respondents in the informal sector who declined in accepting health insurance as a strategy in paying for healthcare indicated that adverse selection in health insurance scheme membership, whereby healthy people have a lower probability of joining health insurance as compared to unhealthy individuals [14]. Conclusively, USSHIP appears to be a viable and acceptable method of paying for healthcare among the self-employed Port Harcourt city of Rivers State, Nigeria.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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