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Perception of National Health Insurance Scheme (NHIS) by Health Care Consumers in Oyo State, Nigeria

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Abstract: The primary motivation for public intervention in the health sector is equity in health care due to lack of access to basic and quality health care services by the poor as well as the skewed advantages derived by the affluent from public health expenditure. In order to provide equitable access to health care, the Nigerian government introduced the National Health Insurance Scheme (NHIS). Therefore, this study assessed the perception of NHIS by health care consumers. A random sampling technique was used in administering one hundred questionnaires on health care consumers in Oyo State by interview schedule. Information collected include age, gender, marital status, family size, employment status, educational status, income level and (possibility of) NHIS sustainability. Data analysis was done using descriptive statistics and Logit model. The study revealed that about 65% of the respondents wanted the programme discontinued. Furthermore, gender, marital status and income level were some of the factors that did not significantly influence respondent's opinion on NHIS continuity. However, registration of dependant ($p<0.10$) and perception by respondents of drug sufficiency under NHIS ($p<0.05$) were significant factors determining respondents' opinion on NHIS continuity. Since the scheme is recent, it can be said to have marginal effect on health care system. Hence, the government need to take measures for the sustainability of the scheme in order to improve its performance.

Key words: NHIS, health care, consumers, continuity, perception, Nigeria

INTRODUCTION

The reforms of government in the health sector are to improve efficiency in both public and private health care markets and to cover the poor who have previously been marginalized. In most developing countries, Nigeria inclusive, there is a clear lack of universal coverage of health care and little equity.

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 (Adeyemi and Petu, 1989; Falegan, 2008; Ngowu *et al*., 2008). 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 (Adeyemi and Petu, 1989; Falegan, 2008; Ngowu *et al*., 2008) leaving a noticeable gap of 1.46% from the recommendation of the World Health Organisation (WHO).

A growing number of countries have implemented, or are considering alternatives to government budget allocations for financing health services. Thus many developing countries design health policy toward achieving universal access to medical care. According to Ngowu *et al*. (2008) and Falegan (2008) in Nigeria an increased proportion of the nation's resources are being spent on health and medical care than it was at independence. Nonetheless, Ononokpono (2008) observed that the nation's ratio of population per health resources has shown large decreases from 47,330 persons per doctor in 1960-6,200 in 1986 and 1,042, 240 persons per dentist in 1960-99,000 per dentist in 1986. Also, 8,600 persons per registered nurse in 1960-1,950 in 1986 and a decrease in population per hospital bed from 2,520 persons in 1960-1,000 in 1986.

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In spite of these achievements however, majority of Nigerians still do not have access to medical care when they need it. The government instituted the National Health Policy (NHP) in 1988 with the primary objective of improving the health status of the people to allow Nigerians to have wholesome, productive, social and economic lives, yet a large proportion of the privileged few who have access to medical facilities cannot afford to pay for health care due to its rapidly escalating cost.

As a way out, the government launched a National Health Insurance Scheme (NHIS) in June 2005 (Ononokpono, 2008). In recent years, several developing countries have evolved national health insurance scheme to cover all or majority of their citizens. Insurance serves two principal functions in improving the economic welfare of a nation (Feldstein and Grubber, 1994; Farber and Levy, 2000; Dusansky and Koç, 2007). First, insurance pools together the financial risks facing a large group of people each of whom has a small probability of significant losses. Second, insurance enables individuals to transfer their risk to an insurance plan by paying a premium; the insurance plan agrees to pay specified benefit when uncertain events occur (Feldstein and Grubber, 1994; Farber and Levy, 2000; Dusansky and Koç, 2007).

According to Ononokpono (2008), the NHIS programme was designed to provide comprehensive health care delivery at affordable costs, covering employees of the formal sector, self-employed, rural communities, the poor and the vulnerable groups.

The burden of ill health has many facets. One facet that is of great concern in recent times is the soaring financial cost of illness. For instance, in recent years, 500 million work days were lost in Europe because of health problems (Woolhandler *et al*., 2003; Collins *et al*., 2007). The situation is similar elsewhere. Reduced productivity at workplace, together with the increasing costs of health care, creates a financial burden that affect all. The poor usually find it difficult to obtain care, if any at all and this in developing countries is the tragic plight of millions who have either limited access or no access to professional health services. Even in wealthy countries, some have to struggle to benefit from the good medical care available.

The Nigerian government is of the notion that a National Health Insurance Scheme (NHIS) which is a healthcare risk spreading mechanism is probably what is required to solve the problem of inequality in the provision of healthcare services (Ibiwoye and Adeleke, 2007). Thus the scheme was proposed to help spread the risks and minimize the costs of health care.

Therefore, the main issues that this study addressed are: what categories of people does the scheme cover? what are the perceptions of NHIS service consumer about the scheme? what are the challenges facing the success of this progamme in Nigeria?

Consequently, the objective of this study is to assess the National Health Insurance Scheme in Oyo State, Nigeria vis-à-vis:

- To describe the socio-economic characteristic of health service consumers and providers in Nigeria
- To determine the prospect for continuity (sustainability) of NHIS programme according to the perspectives of (health care delivery) consumers
- To examine the influence of the socio-economic variables of respondent consumers on respondent's perception of the NHIS programme

MATERIALS AND METHODS

The study area of this research was Ibadan city; the headquarters of Oyo state of Nigeria and the largest city in West Africa. It is located approximately on longitude 3°54' East of the Greenwich meridian and latitude 7°23' North of the equator. The town is entirely the tropics and is bounded to the North by Oyo town, to the East by Ikire town, to the West by Eruwa town and to the South by Ijebu-ode town. Ibadan has a land area of 120,000 km^2 (CBN, 1990) and one of the highest population densities in the country. According to the 2006 census, the total population of Ibadan was 2,258,625 people comprising of 1,125,843 urban and 1,132,782 rural population sizes. The choice of Ibadan was due to the presence of government institutions that were the starting point of the implementation of the NHIS programme.

Data collection for this study was mainly through primary source. The data were obtained with the administration of well-structured questionnaire. One hundred questionnaires were administered on randomly selected respondent health care service consumers. However, 95 questionnaires (representing 95% response rate) were used for data analysis. Others (questionnaires) were rejected due to serious inconsistencies and incomplete responses. The sampled respondents were sourced from the list obtained from NHIS (website) as well as Oyo State Ministries of Information and Commerce.

The questionnaire aims to examine the level of awareness of Nigerians, number of people that are registered under the NHIS, number that have started enjoying the programme, whether consumer were attended to promptly and given sufficient drugs and consumers' perception about the sustainability of the programme.

The data of the study were analysed using the following methods:

Descriptive statistics: This was employed to describe the socio-economic characteristics of (health care) service consumers under the NHIS programme in the study area. These include cross tabulation, frequencies and percentages.

Inferential statistics: This method was used in estimating the influence of respondents perceptions on the sustainability or otherwise of the NHIS programme. The statistic employed is Logit regression model.
The model is given as:

$$P_i = \beta E_i + \varepsilon_i \quad (1)$$

where:

P_i = Variable that indexes the sustainability (continuity) opinion of health care consumers (P_i = 1 if respondent want NHIS continued and 0 otherwise)
β_i = Parameters to be estimated
E_i = Vector of explanatory variables
ε_i = Random error term

RESULTS AND DISCUSSION

Table 1 revealed that 84.2% respondents were within 25-55 years age bracket. This implies that majority of the respondents fell within the (active) working class group of the population. It is in this same age group only that those who wanted the NHIS programme discontinued were in the majority (Table 1). About 52% of respondents were males while 48% were females (Table 1). However, many respondents in both gender wanted the discontinuation of NHIS (Table 1).

Table 1 also showed that 87% of respondents were married. This means that the NHIS programme would be well populated because a married individual is expected to register along with his or her family members (nuclear family only). However, it was only amongst the married respondents that those who wanted NHIS to be discontinued were in the majority (Table 1). Furthermore, Table 1 shows that about 63% of respondents had a fairly large family size (of 6 persons). This is another indication that NHIS programme would be well participated in by consumers. Generally, however, all respondents in all household size categories had those who wanted the discontinuation of the programme in the majority (Table 1).

About 83% of the respondents were educated up to tertiary level (Table 1). This implies that a significant proportion of the respondents will be appreciative of the programme. However, respondents with tertiary education were the majority who wanted NHIS programme to be discontinued (Table 1).

Table 1: Distribution of respondents by socio-economic variables

Variable	Discontinue	Continue	Total	(%)
Age (years)				
<25	1	7	8	8.42
25-55	58	22	80	84.21
>55	3	4	7	7.37
Total	62	33	95	100.00
Gender				
Male	35	14	49	51.58
Female	27	19	46	48.42
Total	62	33	95	100.00
Marital status				
Single	2	4	6	6.31
Married	57	26	83	87.38
Divorced	3	3	6	6.31
Total	62	33	95	100.00
Household size				
4	4	1	5	5.26
5	11	7	18	18.95
6	39	21	60	63.16
7	7	4	11	11.58
8	1	0	1	1.05
Total	62	33	95	100.00
Educational status				
Secondary education	8	8	16	16.84
Tertiary education	54	25	79	83.16
Total	62	33	95	100.00
Employment status				
Federal Govt.	11	7	18	18.95
State Govt.	25	6	31	32.63
Local Govt.	24	9	33	34.74
Private Sector	1	11	12	12.63
Self-employed	1	0	1	1.05
Total	62	33	95	100.00
Income level				
<10,000	0	1	1	1.05
10,000-20,000	15	11	26	27.37
21,000-40,000	33	15	48	50.53
41,000-80,000	14	6	20	21.05
Total	62	33	95	100.00

Field Survey, 2006

Table 1 shows that the civil service was the largest employer of labour, with about 19, 33 and 35% of the respondents being employees of the Federal, State and Local governments respectively. Since, NHIS started with government workers (particularly Federal) who made up to 86% of respondents, this gives them better opportunity to register and enjoy health services under the programme. By implication, if NHIS programme could cover all government employees, a good proportion of the working population in Nigeria will have access to qualitative and quantitative health care services. However, majority of the respondents who wanted the programme to be discontinued were either state or local government employees (Table 1).

Furthermore, about 51% of respondents earned monthly income in the range of ₦21,000-40,000 while only 1% earned <₦10,000 (Table 1). This means a substantial number of people will be able to contribute financially to the programme. However, respondents within the income level of ₦21,000-40,000 were the majority who wanted the programme discontinued (Table 1).

Although, NHIS is still new in Nigeria, yet 87% of the respondents were aware of the programme as indicated in Table 2. This implies that with this level of awareness the prospect of successful administration of the programme in Nigeria is high. However, majority of respondents who were aware of the NHIS opined that it should be discontinued (Table 2).

About 83% of the respondents were registered with the programme while about 17% were not (Table 2). Also, about 81% of the respondents have registered their dependants with the programme while about 19% had not (Table 2). It is in both categories that many respondents wanted the programme to be discontinued (Table 2). If registration is not compulsory not everybody that is aware of the programme will register. The reluctance of consumers to register with NHIS may be attributed to lack of confidence in the programme like previous government programmes or lack of social insurance model that will ensure universal coverage. In the eyes of the uninsured, insurance is meant to help equalise financial risk between the healthy and the sick, the healthy will not be willing to register.

About 25% of the respondents were non-contributors while about 75% of respondents were contributors to the (NHIS) programme (Table 2). However, majority of the respondents who wanted the programme to be discontinued were contributors to the programme.

In Table 3, it is shown that about 59% of the respondents have started enjoying services under the NHIS programme since about one year of registration. This indicates the slow process of implementation of the programme. However, respondents who have enjoyed services provided by the programme were the majority who wanted the programme discontinued (Table 3).

Also, about 72% of respondents were not promptly attended to by their providers; ironically majority of those who said they were promptly attended (though marginal) and those who said they were not promptly attended wanted the programme discontinued (Table 3). Table 3 equally shows that about 97% of the respondents have fallen sick while about 72% had their dependants falling sick at one time or another after registration with the programme. However, respondent who have either fallen sick or whose dependants have at one time or the other; were the majority who wanted the programme discontinued (Table 3).

About 75% of the respondents have received treatment from registered health care providers under the NHIS programme (Table 3). However, respondents who have been treated under the programme wanted the programme discontinued (Table 3). This indicates that people have little hope in the programme.

Table 2: Distribution of respondent consumers by participation in NHIS

Variable	Discontinue	Continue	Total	(%)
Awareness				
Unaware	5	7	12	12.63
Aware	57	26	83	87.37
Total	62	33	95	100.00
Registration				
Unregistered	4	12	16	16.84
Registered	58	21	79	83.16
Total	62	33	95	100.00
Dependant unregistered	5	13	18	18.95
Dependants registered	58	19	77	81.05
Total	62	32	95	100.00
Contribution				
Non-contributor	8	16	24	25.26
Contributor	54	17	71	74.74
Total	62	33	95	100.00

Field survey, 2006

Table 3: Distribution of respondent consumers by NHIS service delivery

NHIS features	Discontinue	Continue	Total	(%)
Services				
Not enjoyed	20	18	38	40.00
Enjoyed	43	14	57	60.00
Total	63	32	95	100.00
Not prompt	48	20	68	71.58
Prompt	14	13	27	28.42
Total	62	33	95	100.00
Health history				
Healthy	3	0	3	3.16
Fell sick	59	33	92	96.84
Total	62	33	95	100.00
Dependant healthy	14	13	27	28.42
Dependant fell sick	48	20	68	71.58
Total	62	33	95	100.00
Treatment (NHIS)				
Untreated	14	13	27	28.42
Treated	48	20	68	71.58
Total	62	33	95	100.00
Payment				
No payment	10	13	23	24.21
Paid	52	20	72	75.79
Total	62	33	95	100.00
Drug sufficiency				
Insufficiency	31	15	46	48.42
Sufficient	31	18	49	51.58
Total	62	33	95	100.00
Opinion				
No diff.	55	28	83	87.37
Sig. diff.	7	5	12	12.63
Total	62	33	95	100.00

Field survey, 2006

Furthermore, Table 3 showed that about 76% of respondents paid providers for services rendered. However, majority of respondents who wanted the programme discontinued were from both group of those who paid and those who did not pay providers for services rendered (Table 3). About 52% of respondents believed that sufficient drug was available under NHIS (Table 3). However, majority of those who either believed or did not believe that sufficient drug was available under NHIS wanted the programme discontinued (Table 3). Finally, majority (87%) of respondents did not believe there was any difference in health care service delivery

Table 4: Logit Regression Result for (Health Care) Consumers

Variable	Estimate	SE	Sig.
Constant	-10.02	49.33	0.84
Age	0.11	1.19	0.92
Gender	1.25	0.77	0.10
Educational status	0.53	1.06	0.62
Employment status	0.48	0.41	0.24
Marital status	0.92	0.72	0.20
Household size	-0.37	0.43	0.39
Household income	0.03	0.51	0.95
Awareness of NHIS	7.62	36.34	0.83
Registration dependant(s) (NHIS)	-6.93	36.36	0.85
Registration of dependant(s) (NHIS)	2.84*	1.51	0.06
Started enjoying the programme	0.84	0.84	0.32
Respondents' sickness history	8.67	49.19	0.86
Dependant sickness history	-1.80	1.12	0.11
Treatment history	-0.51	0.83	0.54
Contributor in NHIS	-1.65	1.18	0.16
Paid for treatment (NHIS)	-0.82	1.05	0.44
Attention to consumers	1.09	0.78	0.16
Sufficiency of drug (NHIS)	1.81**	0.71	0.01
Better-off (NHIS)	0.40	1.10	0.72
[a]HL Test	6.73[b]*	-	0.06
[c]LE	70.69	-	-
[d]CS R^2	0.47	-	-
[e]N R^2	0.66	-	-

NB: *Sig. at 10%, **Sig. at 5%, ***Sig. at 1%; [a]Hosmer and Lemeshow Test (Goodness-of-Fit), [b]Chi-square Value, [c]Log likelihood Estimate, [d]Cox and Snell R^2, [e]Nagelkerke R^2

before NHIS and under NHIS (Table 3). Expectedly, majority of respondents in both groups wanted the programme to be discontinued (Table 3).

Logit regression model (Table 4) revealed that registration of dependant and respondents' perception of drug sufficiency under the NHIS scheme were the significant factors determining the probability of respondents opining for the scheme's continuity ($p<0.1$ and $p<0.05$, respectively).

The coefficients for both factors were positive (Table 4), implying that the fewer the dependants of respondents registered (for NHIS) and the more respondents believe that drugs were insufficient under NHIS, the higher the probability of respondents being of the opinion that the programme should be scrapped. This can be traced to the fact that respondents who had fewer or no dependant registered for NHIS must be of the opinion that they were being cheated by others who had dependants registered for NHIS. Furthermore, respondents who affirm that drugs were insufficient must be of the believe that they were being short-changed on their contributions into the scheme.

CONCLUSION AND RECOMMENDATIONS

Equity in the provision of health care is very important particularly to alleviate the suffering of the masses who lack adequate access to basic and quality health care services. Hence, for the purpose of finding appropriate and comprehensive solutions to the problem, the Nigerian government established the National Health Insurance Scheme (NHIS). Health insurance is aimed at achieving the objective of equity, efficiency and sustainability in health care services. Consequently, how has the programme produced its intended benefit according to the consumer patient's perception is the focus of attention of this study.

Health services users' perceptions are important; since their perception of programme quality is one of the most important determinants in the success of any policy aimed at providing equitable, efficient and sustainable health care service to the citizenry.

In order to assess the performance of NHIS in the view of (health care) consumers, primary data were collected through the use of questionnaire. The data collected were then analysed with the use of descriptive statistics and Logit model regression techniques.

The study revealed that 87.4% of the respondents were aware of the programme and 83.2% were registered for the programme while 58.9% of the respondents have started enjoying the programme. Furthermore, registration of dependants and perception by respondents of drug sufficiency under the NHIS programme were the significant factors influencing the probability of respondents having the opinion that the scheme be continued ($p<0.10$ and $p<0.05$, respectively).

Although the scheme is still at its infant stage, this study shows that notwithstanding, the scheme has marginal effect on the people. This is because respondents having the fear of being short-changed favoured discontinuation of the scheme.

Therefore, the government need to:

- Intensify awareness campaigns so that majority of Nigerians will become aware of the possible benefits obtainable from the scheme
- Ensure universal coverage so that the scheme will be well participated in to reduce the burden of dependency on the few participating so far (particularly to facilitate the incorporation of the rural communities)
- Registration should be made compulsory so as to ensure sufficient pooling of resource, spreading of risk and minimisation of cost. This should solve the problem of drug insufficiency

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