An Assessment Of Level Of Education Of Individual And Their Ability To Register For National Health Insurance Scheme In Choggu In The Tamale Metropolis

Nabia Alhassan John  
Department of Statistics Mathematics and Science, Tamale Polytechnic

Sophia Ayaric  
Department of Secretaryship and Management Studies, Tamale Polytechnic

Abstract: In most recent times the issue of the Ghana National Health Insurance scheme (GNHIS) has preoccupied many a mind. Some perceive it as a savior but others, the skeptimists, imagine it as another big white elephant. The efforts made in this study have sought to digest some concepts of the Health as well as outline the benefits of GNHIS to registered members of the scheme. The objectives of this study were to examine how the individuals education or income status influences his/her willingness to register for the GNHIS and to prefer some recommendations to the appropriate bodies on some challenges confronting GNHIS. A sample size of 81 respondents was randomly selected within the Choggu area in the Tamale Metropolis. Questionnaires were used mainly for primary data collection coupled with secondary data. The study revealed that people who are educated or earned some level of income were in good position to register for the NHIS in the Choggu area. Majority of the respondents, 50.6% indicated that the major challenge they face was annual renewal of membership status with the quality of drugs issued to health insurance cards as a challenge scoring the least, 3.7%. The researchers recommend that Short Message Service (SMS) system be put in place to regularly remind registered members of the expiry dated of their membership.

Key words: Ghana National Health Insurance Scheme, Membership, Challenges, public sector, perceived

I. INTRODUCTION

Dubbed as the most effective poverty alleviation strategy in recent times, Ghana’s National Health Insurance Scheme (NHIS) has attracted so much attention of many a scholar. The reason for this is not farfetched if one takes a bit of pain to follow the trend of the nation’s health delivery system for a period spanning about half a century since attainment of independence. The verity or otherwise of this assertion will become evident after acquainting oneself with what the health policy, vision, mission, targets as well as the goals have been through these years.

II. BACKGROUND

Our colonial masters, the British, left us in 1957 with the free medical service system which failed to withstand the economic stress and strain that the ensuring political upheavals threw the country into. The dwindled economy brought in its wake diminished monetary allocations to the health sector which only triggered off escalating cost of health services. Since independence successive regimes (both military and civilian) have had to grapple with his checkered health delivery system till 1985 when the “cash-and-carry system” was adopted. From then till the early years of the third millennium this unpopular system lingered on till the
National Health Insurance system came into being in 2004. A dimension that existed just before the introduction of the NHIS ensured that the aged, very poor and children were exempted from payments. It was anticipated that by that practice, the recurrent expenses incurred by the government could be borne but it just did not work out like solving a simple arithmetic problem. Instead, the exemption policy was either grossly abused or bluntly ignored by policy implementers. Though the monetary recovery aspirations were achieved, it was not without inflicting further wounds on the poor. As a consequence, the number of people in the exemption class swelled up disproportionately. The drug stock got depleted, mortality rates rose to alarming dimensions.

At the beginning of the last decade of the 20th century, some fresh agitations for reforms had started as reported by (Agyepong 1999). These were the medium term health strategy (1996-2000). Such agitations were aimed at improved health care efficient delivery and strengthened links to other sectors like Agriculture and Education. This supported the introduction of user fees but this time with clear specification of the exemption class and provision of a close monitoring system. This system, however, rather thwarted the government’s policy of including the poor with the ensuring years registering a heavy decline in quality health care, acute drug shortage and a drastic reduction in government health facility users. As the economy worsened, the full cost recovery was brought into force as a frantic move to save the health sector from total collapse. All told, the ‘cash and carry system’ only served to widen the gap between the rich and the poor thus bringing about a further drop in the facility utilization. For example a survey by the statistical survey department in 1998 suggested that only 43.8 % of those who were ill could afford to see a medical practitioner. By 1992 the nation’s poverty index had shot up and in realistic terms only 20% of the population could afford to use any of the government health facilities.

COMPARISON WITH SOME AFRICAN NATIONS

The findings of research done in some developing African nations which had implemented the user fee policy indicated varying consequences. In Mali (Audibert & Mathonnat, 2000) and the Niger (Chawla & Pellis, 2000) the availability of the drugs led to an improvement in health services. For some of the countries as in Tanzania (Tibandebage & Mackintosh, 2001), in Ghana (Waddington & Enyinayew, 1989) as well as (Gilson and Mills 1995), in Zimbabwe (Dlodlo,1995) and in several countries, the trend showed that the financial access of the poor to the health services was dwindling though a lot of revenue was accrued. As strange as this would seem to be Ghana was forced to consider policies that exemplified the poor. This had the effect of minimizing the reduced access of the poor to health facilities while maintaining equity loss as well. This ushered in the provisions known as Social Dimensions of Adjustments (SDA) and the Structural Adjustment Policies (SAPs). The introduction of the latter brought in its wake the ‘new poor’, the victims of the SDA. In Ghana, the health sector has had to undergo many reforms as seen by Agyepong in his work (Agyepong, 1999).

Since 1990 as a medium term health strategy 1996-2000, it sought to improve access to health services, quality health care, efficiency of delivery and strengthening links with other sectors like ministry of Agriculture and Education which have health components in their activities. Hence the introduction of the user fees as part of a broad set of public sector reforms and initiatives otherwise known as the ‘New Public Management’. This included other policies as decentralization of the health sector, introduction of autonomous hospital boards and deregulation, and enablement and regulation of the all these were especially aimed at attaining a sustainable financing of health services, quality improvement and equity in terms of health care and its access (Russell, 1996).

CHANGE IN HEALTH POLICY IN GHANA

The situation as outlined could not persist for long. So in line with Ghana’s poverty reduction strategy (GPRS) as well as the health sector five year programme of work (2002-2006) the NHIS was given birth to as by radio announcement on 17 March 2004.

THE NATURE OF HEALTH

Health can be defined broadly or narrowly depending on the institution or focus. Basically, the standpoint and the believe system of a person or body defining health is mostly geared at drawing the target audience attention to something. The concepts of health considered of interest to researchers in this paper are the medical structure model of health, the social model of health, the functional model of health and the holistic or modern model of health.

According to Dubos (1960), the medical structure model draws it roots from ancient Greek man called Asclepius. This model perceived health as something related to wholeness. This model stressed that the chief role of a physician is the treat disease, thus, restoring wholeness by correcting any imperfections caused by accidents of birth. Supporters of the social model of health perceived health as a social phenomenon. The Morris (1975), conception of health and illness vary among different groups within a single society and between societies as well as in any singly society overtime. Illness behavior to Mechanic (1968) is seen as the response to symptoms and the tendency or reluctance to define any symptom as a health problem and requires one to seek medical care which varies between cultural and social groups.

Perceiving health functionally, Galen, a noble Greek physician (200-129AD) accepted that that health in the abstract was an ideal state to which nobody attained yet he found difficulty regarding as unhealthy all who did not function perfectly (David & David 1984). It is therefore normal to overlook minor ailments and to consider health as a state of reasonable functioning and freedom from pain. The functional model sees health as a state in which we need not suffer pain and we are not impeded in activities of life.

The holistic or modern view of health is accredited to the World Health Organisation (WHO). This model views health as ‘a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity’ (WHO 1948). This model asserts that being in a state of good health...
is not necessarily the absence of disease but it includes being not only in a sound physical, mental and psychological state but also in a good financial state.

EXPECTED GAINS OF THE GHANA NATIONAL HEALTH INSURANCE SCHEME

The NHIS was established under Act 650 of 2003 by government of Ghana to provide basic health services to persons resident in the country through mutual and private health insurance schemes. Provision is made in the Act for district and private mutual health insurance schemes that will cater for the specific needs and interest of beneficiaries depending on members’ interest.

The district mutual health insurance council has defined the minimum benefit package of health services to be provided by all the various types of schemes. This has been made quite flexible and a compromise between what one’s health needs are and what can be realistically provided under our peculiar circumstances taking into consideration the total amount contributed and its sustainability. Such realistic needs are subjected to the economic constraints with limitations placed on what can be practically provided.

Basic package of benefits that the NHIS is expected to provide to registered members. According to Salisu and Prinz (2009), beneficiaries provided to NHIS registered members includes: (1) coverage of all costs, including meals during admission, (2) full payment for medicine as will contain in an approved list of drugs and medicine; and (3) payments for referrals in an approved list. The NHIS will specifically cover oral health; eye care; emergencies; maternity care, including prenatal care, normal delivery, and some complicated deliveries that will require caesarean section; and treatment for malaria, diarrhoea, upper respiratory tract infections, skin diseases, hypertension, asthma, and diabetes (Mensah, Oppong, and Schmidt 2009).

More than 95 percent of disease conditions that afflict Ghanaians are covered by the NHIS. However, other healthcare products and services such as cosmetic surgeries, antiretroviral drugs, and assisted reproduction medical services are excluded from the scheme. From the creation of the scheme, indigents, people above 70 years, children under 18 years, pensioners, and Social Security contributors were exempt from payment of the premium but had to register to obtain the scheme’s benefits. However, this provision is reviewed due to some financial challenges experienced during the inception of the scheme. It is important to note that there is no limit on what NHIS pay in medical bills as long as the care is within the provision of the benefits package.

Also as published in Ghana web, whatever form of health insurance you sign up to, it will entitle you to some minimum services. These are:

- Out-patient services – including general and specialist consultations reviews, general and specialist diagnostic testing comprising laboratory investigation, X-rays, ultrasound scanning, medicines on the NHIS Medicines list, surgical operations such as hernia repair and physiotherapy.
- In-patient services – this include general and specialist in-patient care, diagnostic tests, medication - prescribed medicines on the NHIS medicines list, blood and blood products, surgical operations, in patient physiotherapy, accommodation and feeding in the general and emergency wards.
- Oral health – pain relief (tooth extraction, temporary incision and drainage), simple amalgam filling and temporary dressing.
- Maternity care – antenatal care, deliveries (normal and assisted), Caesarean section, and post-natal care.
- Emergencies – these refer to crises in health situations that demand urgent attention such as medical emergencies, surgical emergencies, paediatric emergencies, obstetric and gynaecological emergencies and road traffic accidents.


SOURCES OF FUNDING

Funding the scheme is done mainly with funds from contributions of members. Right from the onset three sources of continual type of funding were earmarked to form a buffering pool for the scheme. Namely, the two and half percent of the VAT money, another two and a half percent SSNIT contribution by every SSNIT contributor as well as the premium accruing from private participation. The sum accruing from these three sources would serve as a solid base for the smooth takeoff of the scheme. Apart from payment of contributions, a national health insurance fund shall be created at the central level to play a reinsurance role especially for catastrophic events equalize the varying risk levels of disease that exist from one geographical area to another and to make outright contribution on behalf of the core poor and vulnerable groups. The council will monitor and evaluate the operations of all health insurance schemes in the country. They will also insure that the efforts of the scheme are properly coordinated to bring about ultimate realization of the policy goals of the government. A risk-equalization formula will be developed to allocate central funds to the scheme in order to subsidize the contribution levels of the poor and vulnerable groups. The entire DMHIS scheme will have to meet the following conditions.

- Cover the poor and vulnerable
- Public accountability to their members
- Transparency in their financial dealings
- Regular annual external audit of all their financial transactions to verify that standard financial management procedures are followed

STUDY AREA

The research was carried out in Choggu a suburb of Tamale. The education Ridge of Tamale is located in Choggu where we have a good number of basic school, a senior secondary schools, two colleges of education, a polytechnic and the faculty of education of the University for Development Studies. For administrative running of the NHIS, Choggu comprises Choggu Hill Top, Choggu Nnanaayili, the whole of the education ridge engulfing Wurishe, Gholo Kpalsi and the Filling Point area.
STATEMENT OF THE PROBLEM

To a developing nation, issues on health are very essential and should take a centre stage of any government agenda. Health as a primary means of achieving the Millennium development goals cannot therefore be gambled with. Therefore, the NHIS which serves as a life wire for developing nations like Ghana should be made explicitly clear through communication and education to engender acceptance and buy in. Are Ghanaians who have formal education and earn reasonable income attracted to and have subscribed for the NHIS? These constitute the main problem prompting the researchers to investigate.

GENERAL OBJECTIVE

The main objective of this study is to determine the major factors which affect the smooth implementation of the GNHIS, the new health delivery system.

Specifically, the study seeks to:
- examine how the individuals income /academic status influences his/her willingness to register for the GNHIS.
- Prefer recommends to the appropriate bodies the possible solutions to some of the challenges confronting GNHIS

HYPOTHESIS

H1: A person’s academic level /income level significantly influences the rate of registration into the GNHIS so far.

SIGNIFICANCE OF THE STUDY

It will among other things, bring to the fore, as many as possible factors that so far impinge on the smooth take off of GNHIS. This could in turn nurture initiatives for the systematic rethinking of the health insurance policy along lines of correction and improvement.

RESEARCH METHODOLOGY

In an attempt to solicit information to help address the problem, a field survey questionnaires were administered to a sample of 100 individuals from the target population. Supplementary data came from interviews with a purposively sampled set of individuals. Also, secondary data was solicited from the offices of the Metropolitan Health Insurance Scheme to support this study.

SAMPLING DESIGN AND TECHNIQUE

A proportional random sampling was adopted to choose respondents for this study. First, household units were considered with the household head been purposively selected irrespective of whether his/her is a registered member of the NHIS. Sample size was drawn from the population space obtained from the NHIA office. The sample as drawn from the various communities are shown in the table below.

<table>
<thead>
<tr>
<th>COMMUNITY</th>
<th>FREQUENCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choggu –Hill Top</td>
<td>14</td>
</tr>
</tbody>
</table>

LIMITATIONS OF THE STUDY

DATA ANALYSIS

All the various kinds of data were sorted and analyzed with the help of SPSS16 to do comparative statistical schemes for relative deductions to be done. The Chi-Square, tests, Pearson’s relatedness test, linear regression analysis for influence based tests were carried out. Generalizations were inferred by taking the ANOVA test into consideration.

III. DISCUSSIONS OF RESULTS

CHARACTERISTICS OF RESPONDENTS

The women to men ratio of the total respondents for the study were 30:70. Women respondents were about 24 while male respondents were 57. This is represented in the pie chart below.

Sex distribution of respondents

This is not surprising because at the time of visits, women were engaged with their household chores, making them available for contact than their male counterparts. However, majority of the respondents were within the working class and are the household heads or those responsible for the upkeep of the entire family. Interestingly, a very small number of the respondents were above sixty-year-olds. Even though those above age sixty should be seen to be the majority when it comes to seeking health, and for that matter national health insurance, the opposite was the result. However, this situation is partly because in the Education Ridge, there are very few in this age brackets but many of those in the active working class.
The figures in the chart above are taken from an early study by Nabia and Issahaku (2015). From the chart, it is clear that the registered members of NHIS increased slowly between the periods 2006 to 2008 but increased at an increasing rate between 2008 and 2009. This steady rise in registration of members is a demonstration of the benefits of NHIS that accrued to members. It is interesting to note that even though the premium for the NHIS has slightly increased over the years, such an increase does not adversely affect demand as the case of “the law of demand” – “the higher the price, the lower the quantity demanded” – all things being equal. This case of NHIS defies the law which signifies that the NHIS is considered a prestigious service, hence, the higher the price, the higher the demand for it. To the researchers, this is no surprise because as people begin to enjoy the benefits of NHIS and give testimonies, the more the people who were skeptical about the programme will rush to join.

Probing further to ascertain the duration or length of time that respondents have been with the scheme, the results were highly interesting. Out of a total respondents of 81 sampled for this study in Choggu, only 18 respondents representing 22.2% did indicate that they are yet to join the scheme, while 63 respondents, representing 77.8% of the total respondents were registered members of the scheme with varied duration as shown on the pie chart below.

Clearly, the NHIS is accepted by the residents in Choggu. 48.1% are on the scheme for the past two year. Even though the 22.1% of the sampled population are not registered members as of the time of this research, they indicate positively their intention to register and join the NHIS as soon as possible. Concluding this discussion, it clear that about 77.7% of the sampled respondents in the study are accepted the NHIS while a minority of the respondents, representing about 22.2% have not accepted the NHIS by not registering by have expressed the interest of joining the scheme very soon.

The Relationship Between the individual’s Income level/academic Qualification and the Capability to Acquire the Membership Card of the Ghana National Health Insurance Scheme. Testing the hypothesis

$H_0$: There is a significant relationship between a person’s income level and his/her capability to acquire the GNHIS membership card.

$H_1$: There is no significant relationship between a person’s income level and his/her capability to acquire the GNHIS membership card.

**Table 2**

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
<th>Lower Confidence Limit</th>
<th>Upper Confidence Limit</th>
<th>Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highest Educ</td>
<td>3.25</td>
<td>.325</td>
<td>.105</td>
<td>1.13621</td>
<td>9.306</td>
<td>.003</td>
</tr>
</tbody>
</table>

$a$. Predictors: (Constant), Highest Edu level  
$b$. Dependent Variable: Registration status

**Table 3**

In the survey a lot of care was taken to avoid asking people about their salary levels. A very close, almost equivalent factor was found in the variable that boarded on the individual’s highest academic level. Almost invariably in Ghana, with the exception of a few artisans and self-styled businessmen, a person’s highest academic level determines the kind of position and income level given him. A person’s highest level of education contains six graded levels of responses.

Such a variable, ‘the highest educational levels’, is regressed with the variable registration status which also goes with 4 graded responses. This in turn is a direct reflection of the individual’s readiness to register. The outcome of the regression operation is shown in Appendix 1, Appendix 2, Appendix 3, and Appendix 5.

**Table 4**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Square</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>12.014</td>
<td>1</td>
<td>12.014</td>
<td>9.306</td>
<td>.003</td>
</tr>
<tr>
<td>Residual</td>
<td>101.986</td>
<td>79</td>
<td>.094</td>
<td>1.13621</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>114.000</td>
<td>80</td>
<td>.325</td>
<td>.105</td>
<td></td>
</tr>
</tbody>
</table>

$a$. Predictors: (Constant), Highest Edu level  
$b$. Dependent Variable: Registration status
APPENDIX 1: CORRELATION OF REGISTRATION STATUS WITH THE HIGHEST EDUCATIONAL LEVEL

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Registration status</th>
<th>Highest Edu level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1.000</td>
<td>.325</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>81</td>
<td>81</td>
</tr>
</tbody>
</table>

Table 5

APPENDIX 2: MODEL SUMMARY OF HIGHEST EDUCATIONAL LEVEL AND REGISTRATION STATUS OF RESPONDENTS

<table>
<thead>
<tr>
<th>Model Summaryb</th>
<th>Registration status</th>
<th>Highest Edu level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1.000</td>
<td>.325</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>81</td>
<td>81</td>
</tr>
</tbody>
</table>

Table 6

APPENDIX 3: ANOVA OF REGRESSION OF HIGHEST EDUCATIONAL LEVEL ON REGISTRATION STATUS

Table 7

Adjusted R square value in the model summary shows that 0.094 i.e. 0.094 x100=9.4% This implies that up to 9.4% of the variation in the independent variable (education level) can be explained or can be accounted for by changes in the dependent variable (registration status) of the individual.

To test for hypothesis, a look at the ANOVA, appendix 4 shows that the significance value is 0.003. The calculated significance value is 0.003, but 0.05 > 0.003 indicating that we can reject the null hypotheses as insignificant and therefore state that at 95% confidence level there is a significant relationship between a person’s educational level and his/her ability to register.

The researchers took the pain to ascertain some key reasons why some people failed to register for the NHIS in the Choggu area even though majority of respondents agreed that the scheme was beneficial to them. Data gathered and analysed revealed that 38 out of the 81 respondents, representing 46.9% stated that the processes involved in registering for the scheme was cumbersome. They emphasized that even most people have the ability to pay, going through the processes leading to the acquisition of the health insurance card deter most people from starting and/or completing the process of registration. 21 respondents, representing 25.9% considered the premium to be high, hence preventing people from registering for the scheme, while 17 respondents, representing 21% were of the view that most people are yet to realise its value. This is true because most people registered for the NHIS only after their experience in seeking medical care at public hospital or clinic. Other reasons but rather insignificant, why people failed to register for the NHIS as given by respondents were the length of time for the membership card to be printed and issued by the Authority and lack of awareness of the operations and benefits of the scheme.

As can be read off from the ANOVA in appendix 4 registration status= 1.709 x 0.325 (Educational level) suggesting that the education level of a person really influences the registration status, because for every unit rise in the education level the registration status increases by 0.325.units of measure.

Figure 4

Respondents outlined the perceived challenges they faced in using the NHIS. Five main challenges were outlined but with varied magnitude. Of the challenges, majority of respondents 41, representing 50.6% stated that the main challenge they faced is annual renewal of membership. This challenge is considered serious because respondents indicated that in most cases, they will forget of the expiry date stated on the card until they are sick and get to the hospital only to be told that the card is expired. They think that there is the need for a system that prompts them towards the renewal of their
cards. The next most considered challenges were non-claim issues 16 and lukewarm attitude towards NHIS card holders 15 respondents respectively. These scored 19.8% and 18.5% respectively. Respondents were worried about non-claim issues. They stated that there are instances when a member does not make any claim on the health insurance policy the whole year, yet the beneficiary who never made a claim the previous year is expected to make fresh payment as contribution or premium for next year. There is no ‘no claim benefit’ or discount for such beneficiary.

CONCLUSION

This study was conducted to establish the relationship between the level of respondents’ education and its influence on their ability to register with the NHIS in the Tamale Metropolis. The researchers collected both primary data from field survey and secondary data from the Metropolis NHIS office to support this study. The results of the study revealed that the ability to register for membership of the NHIS is greatly influenced by the respondents’ level of education at a significant level. The conclusion is that at 95% level, the level of education influences an individual ability to register as a member of the NHIS in the Tamale Metropolis. Also, the study revealed that the respondents perceived some challenges associated with the NHIS, prominent and most rated challenge been the annual renewal of membership cards which score of 50.6%.

RECOMMENDATIONS

This study was carried out to establish the relationship that exists between an individual level of education or income and his or her ability to pay and register for the NHIS in the Tamale Metropolis. However, the problem of registration for the NHIS is solved because if this study established that there is a strong relationship between the educated and registration for NHIS, what is the state of the uneducated or the non-working class? The challenges identified indicated that all is not well with the NHIS. It is the opinion of the researchers that the National Health Insurance Authority should put in place a system that has the capability of providing reminder to registered members about the expiry date. Like any other card, the expiry date is usually on the card, but the nature of the NHIS card is so dear to members such they cannot afford to be missed out anytime they wish to use the card just because of expiry date. The Authority should therefore established a link with two major telecommunication companies to establish Short Message Service (SMS) that will always automatically send messages to members to remind them of the expiration of the membership status. It is also important to think of ‘no claim discount’ for any member who did not make a claim on the card the previous year. This ‘no claim discount’ will require that such members pay less than the actual premium for renewal. Finally, the educated are able to register because their premium is low once it is established they are registered members and contributors to the Social Security and National Insurance Trust (SSNIT). If the government can establish a fund the also subsidizes for the unemployed, it is certain that they will be able to register for the NHIS just like their counterpart who are educated and working.

REFERENCES