

Does the NHIS cover the poor?

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Introduction

In 1985 the Hospital Fees Regulations (LI 1313) mandated fees to be charged for health services. The introduction of user fees resulted in a decline in utilization of health services in the country¹.

To offset the negative effects of the “Cash and Carry” system, especially its consequences on the poor, the Government commissioned various studies into alternatives, principally insurance-based. Initially, a lot of efforts were vested into investigating the feasibility of a national health insurance scheme.

The enactment of the National Health Insurance Scheme (NHIS) law in 2003 provided the basis for setting up health insurance schemes at the district level in Ghana. In 2004, Legislative Instrument (LI) 1809 was passed. The LI is the arrangement of regulations for the health insurance scheme.

NHIS operates with three categories of registrants; *registrants*, who have registered with NHIS but have not necessarily paid the full premium for the current year; *members*, who have registered and paid the full premium, and who are eligible to hold a membership card; and *card holders*, who hold a valid membership card, providing access to health services under the scheme².

Currently, the NHIS has been established in all districts in Ghana. The proportion of NHIS members increased from 15 percent of the Ghanaian population in 2005 to 38 percent in June 2007, approximately 3.2 million and 8.2 million people respectively².

Subsidies are provided by the National Health Insurance Fund for formal sector workers who contribute to Social Security and National Insurance Trust (SSNIT), children less than 18 years if both parents are card holders, the aged above 70, SSNIT pensioners and the indigent. The indigent are defined as people who are unemployed and have no visible source of income; does not have a fixed place of residence; does not live with a person who is employed and who has a fixed place of residence; and does not have any identifiable consistent support from another person³.

According to the NHIS 2007 mid-year operational status report, the subsidised groups constituted 64 percent of all members, more than half being children below the age of 18. Approximately 190,000 indigents had received subsidised premium, amounting to 2.3 percent of NHIS members². Approximately 24 percent of the NHIS members were adults from the informal sector, i.e. paying premiums. The remaining 12 percent NHIS members were SSNIT contributors.

Table 1:
NHIS members as of June 2007

	Members	Percent
Total Registered	9,823,149	
Total Membership	8,203,035	100.0%
SSNIT contributors	948,342	11.6%
Informal adult members	1,976,297	24.1%
Subsidies members		
<i>SSNIT pensioners</i>	109,854	1.3%
<i>Children under 18</i>	4,257,500	51.9%
<i>Adults above 70</i>	722,614	8.8%
<i>Indigent</i>	188,428	2.3%
Total subsidised members	5,278,396	64.3%
Total Card holders	6,511,515	

The vision of NHIS is to assure equitable universal access to a quality basic package of health services for all residents in Ghana without being required to pay out-of-pocket at the point of consumption of service⁴.

With an average GNI of USD 520⁵ per capita in 2006, Ghana is classified as a low income country. The latest Ghana Living Standard Survey, GLSS V, estimates that 28.5% of Ghana’s population lives below the poverty line⁵. The discrepancy between the proportion of the population identified to be living below the poverty line and the proportion of subsidised indigents in the NHIS has led to concern that a significant proportion of the population is not able to pay the NHIS premium required to register with the health insurance.

As it is fundamental to the NHIS to assure equitable access to health services, we have found it important to critically examine the issue of enrolment of the poor in comparison to the non-poor, and provide information for devising policies on NHIS that reduce inequality in enrolment and access to health services.

Method

Data

A household survey in two rural forest districts of Ghana was conducted. The selected districts were the Asutifi District in the Brong Ahafo Region and the Kwaebibirem District in the Eastern Region. These two districts were selected to provide data from rural parts of the country's forest belt, which will complement the ongoing supplementary Multi Indicator Cluster Survey (MICS) being conducted in the Northern and Southern parts of the country. It was not the intention of the study to provide information which could be considered representative for Ghana or the country's forest belt. However, the sampling was conducted according to procedures of providing representative data for the two districts.

For each district, 27 Enumeration Areas (EA) were surveyed. The EAs were representative of the district based on the Ghana Statistical Service classification. In each EA, 30 households were systematically sampled (with an additional 10 households for replacement). The 30 households were obtained by first listing all households in the EAs and then systematically selecting the 40 households. Thus, in each district 810 households (i.e. 30 households x 27 EAs) were sampled and interviewed. For the two selected districts, a total of 1,620 households were interviewed.

Statistical Analysis

Data on household ownership of assets⁷ as well as housing condition⁸ was used to create socio-economic status (wealth) index. The approach used in computing the index is the same as that of the Demographic and Health Survey of 2003. The index is used in identifying the poor and non-poor by grouping the population into five socio-economic quintiles. The first and the fifth quintile represent the poorest and the richest respectively.

In order to obtain the true contribution of each selected Enumeration Area in the sample, weights were computed for each household and applied to all respondents belonging to that particular household. The weight is used to denote the inverse of the probability of being included in the sample due to the sampling design.

The sampling design is a two-stage design and the weight is calculated as $1/p_1p_2$, which means that the inverse of the sampling fraction for the first stage is multiplied by the inverse of the sampling fraction for the second stage. p_1 is calculated as $(a_h M_{hi}) / \sum M_{hi}$, where a_h is the number of enumeration areas selected for the survey at the first stage in district h , M_{hi} is the number of households in EA i in district h , and $\sum M_{hi}$ is the total number of households in the respective district stratum. p_2 is calculated as $b / \sum M'_{hi}$, where b is the number of selected households per given EA at the second stage

and $\sum M'_{hi}$ is the number of listed households in EA i in district h . M_{hi} , $\sum M_{hi}$ and $\sum M'_{hi}$ stem from the 2000 Population Census.

Results

Household characteristics

The respondents originated from 1,620 households, 810 households in Kwaebibirem district and 810 households in Asutifi district. Table 2 shows the characteristics of the sampled population in the two districts.

In both districts, majority were Akans (66 percent in Kwaebibirem and 72 percent in Asutifi districts) which reflects the general ethnic background of the regions in which we find these districts. Eastern and Brong Ahafo regions are mainly Akan-speaking areas. Other ethnic groups in the districts were Mampruli, Frafra, Kassen, Dagbani, Dagari and Sissali (all from northern Ghana) and Ewes.

90.1% of individuals in Asutifi were living in rural areas against 51.2% in Kwaebibirem. 80.1% from Kwaebibirem district ever attended school. This is slightly higher than Asutifi where 76.5% ever attended school.

The proportion of the poor is higher in Asutifi district than in Kwaebibirem district. In Asutifi district 32.5% [30.9% - 34.3%] of the population fall in the poorest quintile compared to 13.9% [12.7% - 15.1%] in Kwaebibirem district.

Variances in age and gender characteristics are insignificant between the two districts.

Table 2:
Characteristics of sampled districts

	Asutifi	Kwaebibirem
District population	99,179	206,634
Number of adult respondents to NHIS questions	1,053	945
NHIS registrants (%)	49.3%	57.1%
NHIS card holders (%)	40.7%	45.9%
Age	26.1	27.0
Female (%)	52.2%	52.2%
Living in rural area (%)	90.1%	51.2%
Ever attended school	76.5%	80.1%
Proportion in poorest quintile	32.5%	13.9%

Status of People Enrolled in the NHIS

The proportion of adult respondents who have ever registered with NHIS was higher in Kwaebibirem District than in Asutifi District, 57.1% [53.3% - 60.8%] and 49.3% [46.1% - 52.5%] respectively.

A further look at the registration status of respondents by wealth quintiles in the two districts is presented in Figure 1. The proportion of adults who have ever registered with NHIS was lowest in the poorest quintile and increased with socio-economic status. Furthermore, the proportion of registrants in the poorest quintile is significantly lower than the median, 40.0% [35.4% - 44.6%] and 52.5% [46.7% - 58.2%] respectively.

Status of People holding NHIS card

81.9% [78.7% - 85.0%] of the respondents who ever registered with NHIS are currently holding a valid NHIS membership card. There is no significant association between the socio-economic quintiles and probability of holding a valid NHIS card.

A variance analysis shows that the association between NHIS card holders and socio-economic status is significant ($p < 0.0001$) with respondent being more likely to hold an NHIS membership card if they belong to richer quintiles (Figure 2). Furthermore, the proportion of NHIS card holders among the poorest quintile is significantly lower than the median population, represented by the middle quintile (Table 3).

Table 3:
% card holders by socio-economic status

Wealth Index	Card holders (%)	SE	Confidence Int.	
Poorest	30.2%	2.2%	25.9%	34.6%
Second	37.2%	2.5%	32.3%	42.1%
Middle	43.1%	2.8%	37.5%	48.6%
Fourth	52.2%	3.6%	45.2%	59.1%
Richest	58.7%	4.0%	50.8%	66.6%
Total	44.2%	1.4%	41.4%	47.1%

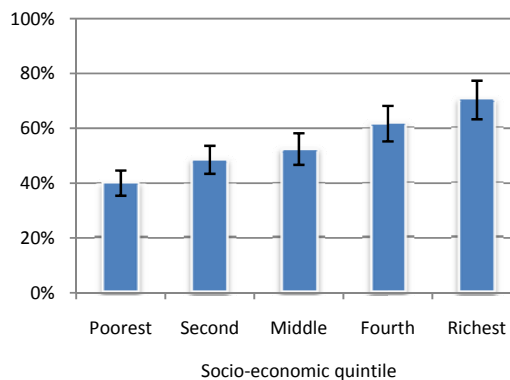
Reasons for Not registering with NHIS

The most important barrier to registration with NHIS is that the premium is too expensive (Figure 3). This is reported to be a reason for not registering by 91.7% [89.4% - 94.1%] of the non registered respondents (Figure 3). Surprisingly a high proportion of the respondents (24.0% [20.2% - 27.7%]), particularly among the poorer populations, has never heard of NHIS. Only the populations in the richest quintile were significantly better informed about NHIS. Other variances among socio-economic quintiles are insignificant.

Do card holding NHIS members perceive any benefits from the membership?

92.6% [90.6% - 94.6%] of the card holding respondents reported that they benefit from holding a NHIS membership card. There is no significant association between socio-economic status and probability of benefitting from having a NHIS membership card.

Figure 2:
NHIS registration by socio-economic quintiles



Majority of respondents indicated that all four areas of benefit examined had been of benefit (saved money from paying hospital bills; did not need to borrow to pay for hospital bills; was not afraid of using health facilities because of cost, can now use health services to prevent illness becoming severe). Saving money from paying hospital bills was the subject that the largest proportion of respondents regarded as a benefit with 96.9% of the respondent answering confirmatively. There was no significant correlation between benefits and socio-economic status.

Are NHIS members willing to renew their registration?

The survey shows that 97.2% [95.9% - 98.4%] of NHIS card holders were willing to continue to be members of the scheme regardless of socio-economic status.

Discussion

The intention of this study was to provide information for devising policies on NHIS that reduce inequality in enrolment and increase access to health services for the poorest population.

For the purpose of the study, we define that for the NHIS to be equitable, the poorest population must have equal or better registration rate with the scheme compared to the average population. The results presented above reveal that there is a significant correlation between socio-economic status and probability of registering with the NHIS, reflecting reduced registration with NHIS for the poor population. Furthermore, individuals belonging to the poorest socio-economic quintile are registering to a significantly lower extend than the median. This study shows that in the two surveyed districts, the NHIS does not comply with the used definition of being equitable.

Issuing of NHIS membership cards to people who have registered has been a source of concern since the introduction of NHIS. This study demonstrates that more than eighty percent of individuals who ever registered with NHIS hold a valid membership card. It is expected

Figure 2:
NHIS card holders by socio-economic quintiles

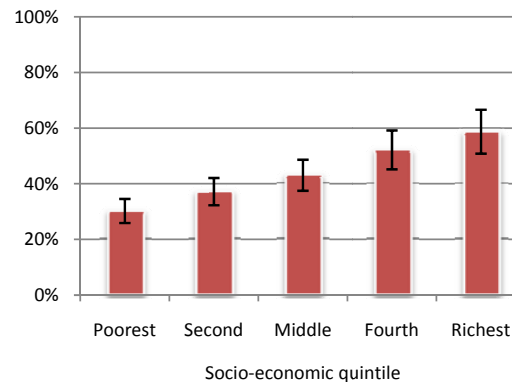
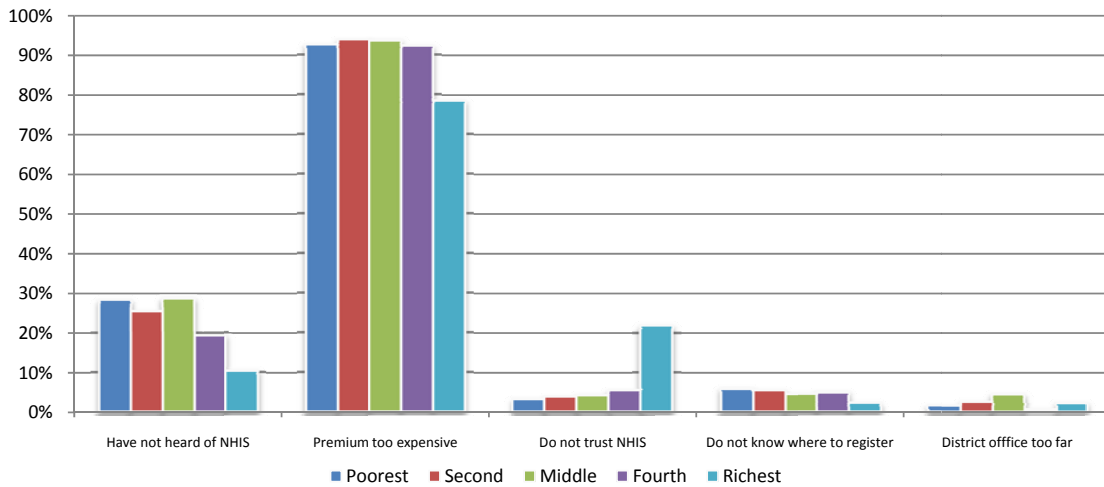


Figure 3:
Reasons for not registering with NHIS by socio-economic status



that some individuals in the population of ever registered with NHIS will not have paid the premium for the current year, and hence would not be eligible to hold a NHIS membership card. Therefore, the actual proportion of NHIS card holders among registrants eligible to hold a NHIS membership card is expected to be higher than eighty percent. This indicates that issuing of NHIS membership cards should no longer be a concern. The study did not identify any significant difference between the five socio-economic groupings in regards to probability of receiving a NHIS membership card after registration.

More than 90% of all card holders are benefitting from their health insurance. Prior research has demonstrated that the poorest populations are facing barriers to accessing health services that are not alleviated by the NHIS, and that the general insured population incurred more costs with respect to health care as compared to the insured poor⁹. Based on this, concern has been raised that the poorest population would benefit to a lesser extend from the NHIS compared to the average population. The current study can not confirm any correlation between benefits and socio-economic status of the individual.

More than 95% of all current card holders, regardless of socio-economic status, were willing to renew their registration with NHIS. This indicates an overwhelming satisfaction among those who have access to services provided under the scheme.

In conclusion, this study describes a health insurance scheme which is operating effectively and with high level of benefits and satisfaction among card holders regardless of socio-economic status. This indicates that the NHIS has the potential to significantly increase access to health services, also for the poorest population if this population is enrolled into the scheme to a larger extend than what is the current case. This will require actively pursuing and investigation of underlying factors for not enrolling.

The current study focused the correlation between enrolment into the NHIS and one independent variable, namely socio-economic status. It is recommended to do further research into identifying other significant variables in regards to enrolment. The study has not provided adequate information on why poor people register to a lesser extend than the richer people. This question is important to answer in the process of designing strategies that will reduce inequality in enrolment and access to health services. Further research into this area is recommended.

¹ Waddington and Enyimayew, 1989

² 2007 Mid-Year Operational Status Report, NHIS, 2007

³ L.I. 1809 National Health Insurance Regulations, 2004

⁴ Policy Framework for the Establishment of Health Insurance in Ghana, Ministry of Health, March 2002

⁵ World Development Indicators, www.worldbank.org/data

⁶ Ghana CEM: Meeting the Challenge of Accelerated and Shared Growth, World Bank, Partial and preliminary draft for review, Updated: June 11, 2007

⁷ Ownership of Household Assets: Radio, Television, Computer, Clock, Mobile and Fixed-line Telephones, Refrigerator, Video deck, Freezer, DVD, Wood furniture, Iron, Mattress/Bed, Sewing Machine, Stove, Fan and Generator, Bicycle, Motorcycle, Animal drawn cart, Car/truck and Canoe/boat.

⁸ Housing condition: Number of rooms, Material of dwelling floor, Main material of roof and Walls, Type of cooking fuel and Place of cooking

⁹ Utilization by and Cost of Health Care of the Insured Poor in Saboba-Chereponi District, Northern Region, Dr Moses Aikins and Ms. Helen Dzikunu, June 2006