Exploring options for financial sustainability of Ghana's National Health Insurance Scheme.

Aaron Asibi Abuosi,
Department of Public Administration and Health Services Management
University of Ghana Business School
P.O Box LG 78,
Legon, Accra, Ghana.
Mobile: +233244757436;
+233202836995

Correspondence:
Email: aabuosi@ug.edu.gh;
aabuosi@yahoo.co.uk

Abstract
Even though Ghana's National Health Insurance Scheme (NHIS) has been hailed as a success story of health financing in developing countries, it is facing serious challenges of financial sustainability. This has been attributed to several factors including low premium contribution by the informal sector, low health insurance levy (NHIL) and large exemption package. However, no study has been done to explore options for reforms to sustain the scheme.

The objective of this study was to explore options for reforms to sustain Ghana's National Health Insurance Scheme.

A cross-sectional survey of five hospitals within the Greater Accra Region of Ghana was conducted. Questionnaire was administered to a total of 596 patients. Data was analysed with the aid of SPSS version 20 using descriptive statistics and chi-square analysis.

The results showed that only 2 in 10 respondents approved of increasing premium as a means of raising revenue to sustain the scheme. About 4 in 10 were in favour of increasing the NHIL. About 5 in 10 were in favour of co-payment for in-patients services, while about 3 in 10 approved of co-payment for out-patient services. Over 7 in 10 respondents were in favour of other forms of taxes such as company tax and sin tax.

Tax sources of revenue will be the most feasible option to ensure financial sustainability of the NHIS. Increasing the NHIL from 2.5% to 4% or 5% will improve the financial position of the NHIS. Co-payments could be introduced as a temporary measure.

Keywords: health insurance, patients, exemption mechanisms, children, primary care, access

Introduction

The key motive for adoption of a World Health Assembly Resolution in 2005 on financial protection was the large amount of household out-of-pocket payments for medical expenses, resulting in household financial disruption and impoverishment (World Health Organization, 2005). To reduce financial impoverishment resulting from out-of-pocket expenditure, attention is increasingly given to universal health coverage (UHC), that is, to improve access to needed, effective services while protecting users from financial ruin (Kutzin, 2012). The assertion by the former Director General of WHO, Margaret Chan, that UHC is "the single most powerful concept that public health has to offer" lends credence to the importance of UHC (Lagomarsino, Garabrant, Adyas, Muga, & Otoo, 2012).

There are two main options for achieving universal coverage (Bärnighausen & Sauerborn, 2002; Carrin, James, & Organization, 2004; Immergut, 1992; Kutzin, Ibraimova, Jakab, & O'Dougherty, 2009). First, general tax revenue similar to the United Kingdom scheme. Secondly, social health insurance (SHI), which requires mandatory membership for all the population. However, a third hybrid system which has the features of tax revenue and SHI, is emerging in many countries. They have clearly specified segment of the population partially covered via general tax revenue, and others by health insurance (Carrin *et al.*, 2004; Kutzin, 2012; Lagomarsino *et al.*, 2012). A system of private health insurers may also be in place, but one that is subject to government regulatory powers, especially ensuring a specified benefit package of care (Carrin et al., 2004).

Many countries in Sub-Saharan Africa and Asia have embarked on health insurance reforms within their socio-economic contexts, in order to attain UHC (Lagomarsino *et al.*, 2012) In 2003, Ghana launched a National Health Insurance Scheme (NHIS) under Act 650 as a further step towards equitable and financial access to basic health services. The scheme was introduced countrywide in 2005. The introduction of the NHIS has resulted in tremendous improvement in access to healthcare in Ghana. For example, out-patient attendance increased from about 0.6 million in 2005 to over 27,000,000 million in 2013 (National Health Insurance Authority, 2011, 2013). Currently, about 38% of the Ghanaian population are active members of the scheme; over 80% of out-patient attendants are insured with the NHIS; and over 80% of internally generated funds of health facilities in Ghana are from the NHIS.

However, the NHIS is currently at a cross-road in respect of its financial sustainability. The scheme reached a turning point in 2010, with expenditure outpacing revenues for the first time because of rapidly increasing use and costs (Lagomarsino *et al.*, 2012). As of 2011, the scheme was financed primarily through progressive VAT (NHIL) which formed 73% of the National Health Insurance Authority (NHIA) funding, followed by Social Security and National Insurance Trust (SSNIT) contributions (17.5%), interest on investments (5.2%), and premium payment (4.5%) (National Health Insurance Authority, 2011). Against this background, over 60% of beneficiaries are exempted from payment of premium. These include all children below 18 years (who constitute close to 50% of Ghana's population), the elderly

(70 years and above), all pregnant women and all those who are very poor (National Health Insurance Authority, 2011). This presents a sustainability problem, in that revenue is decoupled from the growing membership(Witter & Garshong, 2009). Meanwhile, about 95% of all diseases in Ghana treated by both public and private health care providers are covered by the scheme (National Health Insurance Authority, 2011).

In 2013, the NHIS commemorated 10 years of its existence with an International Conference which was attended by participants from over 40 countries. For improvement in the operations of the NHIS, participants recommended that the NHIA should, among others, lobby Parliament to increase the funding sources of the NHIS and increase the earmarked tax (NHIL). Participants also recommended that the benefit package should be reviewed in line with best practices and international evidence; cost containment and prudent financial management measures should be pursued; and continue to provide exemptions for the poor and vulnerable (National Health Insurance Authority, 2013).

Anecdotally, there has been much discourse among Ghanaians about possible options for reform. Some of the areas include a call to charge actuarially fair premiums; increase in the NHIL rate; introduction of copayment; a review of the targeted exemptions to allow many pregnant women who could afford to contribute premium; include only children below five years; covering only primary level health care with health insurance, and imposing additional taxes such as 'sin' tax, corporate tax, air tax, or tax on oil or gold revenue. To the best of the authors' knowledge no comprehensive study has so far been undertaken to provide insights into the feasibility of some of the options for health insurance reform in order to sustain the NHIS. This study therefore seeks to fill this gap.

Methods

Research Design

The study was a cross-sectional survey of selected health facilities within Greater Accra Region of Ghana in 2016. Questionnaire was developed to elicit views of patients on appropriate financing options to sustain the NHIS. Patients were chosen for this study because of their immediate experience of health care and the costs involved, at the respective levels of health care. Three types of patients were included: out-patients, in-patients and maternity clients (antenatal, delivery and postnatal).

Study setting

The study was carried out within the Greater Accra Region. The reason for choosing Greater Accra is that it is the national capital of Ghana, and all the types of health facilities can be found in Accra, including primary and high-level referral hospitals, as well as a mix of government, quasi-government, private and mission health facilities.

Sampling methods

The study employed multi-stage sampling method to select respondents for interview. First of all, health facilities were purposively selected according to their types. These include one teaching

hospital, one regional hospital, one general government hospital, one private hospital, one mission and one quasi-government hospital. However, it was not possible to gain access to the teaching hospital due to time constraints. Within the health facilities convenience sampling were used to select patients for interviews. The exit interview method was used, that is, patients who received treatment and were about to leave the health facility were contacted, and those who consented were interviewed. The inclusion criteria were out-patients, in-patients and women who visited health facilities for maternity services such as antenatal care and deliveries. Convenience sampling was used for selecting patients, since all categories of patients visit and leave health facilities at different times.

Sample size determination

The sample size of patients who were interviewed was determined with the aid of OpenEpi version 2, open source calculator –Sspropor.

The sample size formula that was used is as follows:

$$n = deff\ x\ \frac{Npq}{\frac{d^2}{1.96^2}(N-1)pq}$$

where,

n = sample size

deff = design effect

N = population size

p^ = the estimated proportion

q^ = −1p^

d = desired absolute precision or absolute level of precision

OpenEpi suggests that a default population of 1,000,000 as the maximum for determining any sample size. Since it was difficult to determine the population of patients in the Greater Accra Region for the current year, we used 1,000,000. The design effect was 1.5 in line with the 2014 Ghana Demographic and Health Survey (Seddoh & Akor, 2012). The sample size determined was 576. To cater for non-response, 10% of the sample was added, which gave a new sample size of 634. The sample was divided proportionally according to the bed capacity of the selected hospitals. Bed capacity is a proxy of hospital size (Akazili, Garshong, Aikins, Gyapong, & McIntyre, 2012). However, the final sample size was 596, representing 94% of respondents.

Instruments and data collection

The questionnaire was designed according to the respective financing options for sustainability of the NHIS. The major options include a review of the revenue sources, a review of the exemption scheme, a review of the health insurance benefit package and other proposed options.

Ethical considerations

Adhering to ethical standards in research is essential. In this regard, ethical approval was taken from University of Ghana Ethics and Review Committee (ECH 052/15-16) before commencing data collection. Approval was also taken from

Ghana Health Service and management of the selected health facilities. Patients who volunteered to participate were asked to consent either by signing or word of mouth before a questionnaire was administered. Other ethical standards of scientific research were duly observed.

Data analysis

IBM SPSS version 20 software was used for performing all statistical analysis. These include frequencies, mean distributions and chi-square analysis respectively. Findings were then discussed according to the objectives, vis-à-vis extant literature.

Results

The socio-economic indicators in Table I show that 375 (63%) of respondents were female. In terms of age, respondents aged 18 to 20 years were 62 (10%). Those within the 21-30 age group were in the majority, 200 (34%), followed by those within the 31-40, 167 (24%). Those who were 51 years and above constituted the lowest proportion of respondents, 75 (13%). Married respondents were in the majority, 338 (58%). With regard to educational level of respondents, those who had no formal education were the least, 56 (9%). Majority of respondents, 208 (35%), were people with tertiary level education, while respondents with primary/junior high school level and secondary/vocational/technical levels were 169 (29%) and 160 (27%) respectively. Regarding the occupational status of respondents, farmers/fishers were the least respondents, 15 (2%), followed by the unemployed, 47 (8%); while artisans, hairdressers and traders were in the majority, 238 (40%), followed by government/company workers, 150 (26%). In terms of income levels of respondents, those who earned GH¢100 ($25) or below were 338 (57%), while those who earned GH¢101 and above were 258 (43%). A little above half, 308 (52%) of the respondents were out-patients with general disease conditions. In-patients were 171 (29%), while 116 (19%) were maternal conditions. About 90% (525) of all respondents were insured.

Table 1. Socio-economic and other background characteristics of respondents.

Characteristic		Frequency	Percent
Sex	Female	375	63
	Male	219	37
	Total	594	100
Age	20 years and below	62	10
	21 to 30 years	200	34
	31 to 40 years	167	28
	41 to 50 years	88	15
	51 years and above	75	13
	Total	592	100
Marital status	Never married	240	42
	Married	338	58
	Total	578	100

Educational status	None	56	9
	Primary/JHS	169	29
	Secondary/Voc/Technical	160	27
	Tertiary	208	35
	Total	593	100
Occupation	None	47	8
	Student	142	24
	Farmer/Fisher	15	2
	Artisan/Hairdresser etc	238	40
	Govt/Company employee	150	26
	Total	592	100
Level of income	100 and below	338	57
	101 and below	258	43
	Total	596	100
Patient type	Out-patient	308	52
	In-patient	171	29
	Maternity	116	19
	Total	595	100
Insurance status	Insured	525	89
	Uninsured	64	11
	Total	589	100

Respondents were asked about options for reform of the NHIS. The options related to issues that were often discussed by various stakeholders in Ghana, including ordinary citizens, the media, religious groups, and civil society organizations. From the responses shown in Table 2, it is observed that 127 (22%) respondents were in favour of increasing the insurance premium above the prevailing average amount of GH¢24 ($6). Majority, 405 (70%) respondents were against any increase, with 47 (8%) not sure whether premium should be increased or not.

Table 2. Options for reform of the NHIS

Options of for reform	N	Yes (%)	No (%)	Don't Know (%)
The amount of NHIS premium should be increased	579	22	70	8
The VAT rate should be more than 2.5%	578	39	49	12
The SSNIT levy should be increased	579	40	45	15
SSNIT contribution should be a percentage of workers income	574	36	47	17
Companies should be taxed for NHIS	572	82	14	4
There should be tax on habit-forming goods	574	89	8	3
There should be special tax on oil or gold revenue	575	80	16	4
There should be special aviation tax for NHIS	574	68	23	9
There should be special communication tax for NHIS	570	70	22	8
Some pregnant women should pay premium	553	17	76	7
Parents should pay premium for children above 5 years	571	31	62	7

Co-payment should be introduced for out-patient care	573	27	64	9
Co-payment should be introduced for in-patient care	572	44	46	10
NHIS should cover only primary care	543	6	91	3

From Table 3, the average amount proposed by those who were in favour of increasing the premium was GH¢40 ($10) per year. The median and model amounts were GH¢35 and GH¢30 respectively. It is observed that all the proposed premiums were more than the initial minimum premium of GH¢ 7.20 (less than $2). However, they are less than the initial maximum premium of GH¢ 48 ($12) set by the NHIS policy framework (Abiiro & McIntyre, 2012). The maximum premium was however hardly implemented anywhere in the country.

Regarding increasing the NHIL (VAT) above the current rate of 2.5%, 227 (39%) were in favour, while 280 (49%) were against, and the rest, 71 (12%) were not sure. The mean, median and modal rates proposed were 4.21%, 4% and 3% respectively (Table 3).

Formal sector workers contribute 2.5% of their pension contribution (SSNIT) to the insurance scheme. On whether this rate should be increased, 232 (40%) of respondents were in favour, while 261 (45%) were against, with 86 (15%) not sure. The mean, median and modal rates proposed were 4.37%, 4% and 3% respectively (Table 3).

Informed by the public discourse and practices in other countries, respondents were asked whether formal sector workers should contribute a proportion of their gross salary instead of a percentage of SSNIT contribution which was the prevailing practice, and which is far less than a proportion of gross salary. Thirty-six percent (203) of the respondents were in favour of formal sector workers contributing a percentage of their gross salaries, while 271 (47%) were against, with 100 (17%) not sure.

Opinions of respondents were also sought on other sources of tax beyond the prevailing 2.5% consumption tax (VAT). An overwhelming majority of respondents, ranging from about 405 (70%) to about 521 (90%) were in favour of raising revenue from other sources of tax including tax on company profits, special tax on gold or oil revenue for health, aviation tax, communication tax on telecommunications companies and 'sin tax' on habit-forming goods such as alcohol and cigarettes. The mean rates for the respective proposed taxes ranged from 9-13%, with 25.36% proposed for 'sin tax'. The median and modal rates proposed ranged from 2-5% (Table 3).

One of the most debated issues on sustainability of the health insurance scheme in Ghana is the blanket exemption of all pregnant women from contributing to the scheme. Some school of thought argues that a means test should be developed to identify and exempt only women who are really poor, so that women who could afford could contribute to sustain the scheme. This question was posed to the respondents. More than three-quarters, 422 (76%) of respondents were against any move to let some pregnant women contribute insurance premium. However, 93 (17%) of respondents were in favour, with 38 (7%) not sure.

Similar to the pregnancy exemption argument, some people argue that instead of a blanket exemption of all children below 18 years, who happen to constitute the majority of Ghana's population, only the conventional under-five years children who are more vulnerable should be exempt, so that parents pay the premium of children who are five years and above. A considerable number, 174 (31%) is in support of this view. However, majority, 357 (62%) is against, with 40 (7%) not sure. The mean amount proposed for children as premium was GH¢8.38 ($2) per year (Table 3).

Co-payments are practiced in other developing countries with similar health insurance schemes. Respondents' views were sought regarding co-payments. While 154 (27%) were in favour of co-payments for out-patient care, 368 (64%) were against, with 51 (9%) not sure. For in-patient care, 249 (44%) were in favour of co-payments, 263 (46%) were against, with 60 (11%) not sure. The mean, median and modal annual amounts proposed as co-payments GH¢39 ($10), GH¢30 ($7.5) and GH¢50 ($12.5) respectively, for out-patients; and GH¢48 ($12), GH¢36 ($9) and GH¢100 ($25) respectively, for in-patients. Co-payments with regard to the contribution of the patient normally depends on the total health cost per person. However, since the NHIS in principle covers virtually the total cost of care, the proposed co-payments were amounts respondents were willing and able to contribute in order to ensure sustainability of the scheme.

Finally, on whether the insurance scheme should dwell on primary care where many people access health care, and which is less expensive compared with secondary and tertiary levels, this was virtually rejected by all respondents, with 493 (91%) against; 36 (6%) in favour and 14 (3%) not sure.

Table 3. Descriptive statistics of options for reform

Options for reform	N	Min.	Max.	Mean	Median	Mode	Std. Dev
Suggested premium (amount)	101	10	100	40	35.00	30	14.958
Suggested VAT rate (%)	191	1	10	4.21	4	3	1.706
Suggested SSNIT rate (%)	190	1	10	4.37	4	3	1.809
Suggested company tax rate (%)	248	1	10	3.81	3	2	2.768
Suggested habits goods tax rate (%)	357	1	90	25.36	15	10	24.326
Suggested oil or gold tax rate (%)	275	1	20	6.49	4	2	6.143
Suggested oil aviation tax rate (%)	239	1	15	5.2	3	2	4.592
Suggested communication tax rate (%)	287	1	20	6.51	5	5	5.333
Suggested premium for pregnant women (amount)	78	1	80	13.1	10	1	14.121
Suggested premium for children above 5 years (amount)	137	1	60	8.38	3	2	10.381
Suggested amount of co-payment for out-patient care	105	5	100	38.98	30	50	26.534

Bivariate analysis was done to determine the association between patients' characteristics and some key reform indicators such as payment of premium and VAT rate. Chi-square was used to test for significance in the association. Only significant associations were reported. From Table 4, the results show that compared with La General hospital, which is an urban government hospital, patients in Dodowa government hospital which is a rural hospital were more likely to reject any proposal to increase insurance premium. It is also observed that patients in Ridge Hospital which is a referral (secondary) hospital were more likely to reject proposals for premium increase compared with the other hospitals.

The results also show that those in the middle to elderly age groups, from 41 years to 50 and beyond were less likely to accept increase in premium. Finally, those within the relatively lower income bracket (GH¢100 and below) were less likely to accept increase in premium.

Table 4. Cross-tabulation of patient characteristics and willingness to increase premium

	Patient characteristic	No (%)	Yes (%)	N (%)	p-value
Name of hospital	Ridge Hospital	111 (89)	14 (11)	125 (100)	0.000
	La General Hospital	133 (85)	24 (15)	157 (100)	
	Dodowa Hospital	77 (93)	6 (7)	83 (100)	
	Pentecost Hospital	61 (48)	65 (52)	126 (100)	
	Ashongman Community Hospital	22 (51)	21 (41)	43 (100)	
Age	20 years and below	40 (71)	16 (29)	56 (100)	0.028
	21 to 30 years	144 (79)	38 (21)	182 (100)	
	31 to 40 years	101 (67)	50 (33)	151 (100)	
	41 to 50 years	64 (83)	13 (17)	77 (100)	
	51 years and above	51 (80)	13 (20)	77 (100)	
Income	100 and below	251 (82)	55 (18)	306 (100)	0.000
	101 and above	153 (67)	75 (33)	228 (100)	

From Table 5, the results show that patients in Ridge and Dodowa hospitals were again more likely to reject increase in tax compared with patients in the other hospitals. Respondents with relatively higher incomes (GH¢101 and above) were less likely to approve of tax increase. Respondents from the secondary to tertiary level education were also less likely to approve of tax increase. Farmers and artisans were also less likely to accept tax increase. Finally, compared with those insured, the uninsured were less likely to approve any increase in tax.

Table 5. Cross-tabulation of patient characteristics and willingness to increase tax (VAT)

	Patient characteristics	No	Yes	N*	P-value
Name of Hospital	Ridge Hospital	85 (72)	33 (28)	118 (100)	0.000
	La General Hospital	117 (76)	37 (24)	154 (100)	
	Dodowa Hospital	9 (11)	74 64	83 (100)	
	Pentecost Hospital	56 (47)	64 (53)	120 (100)	
	Ashongman Community Hospital	13 (41)	19 (59)	32 (100)	
Income level	100 and below	150 (50)	150 (50)	300 (100)	0.003
	101 and above	130 (63)	77 (37)	207 (100)	
Educational level	None	19 (49)	20 (51)	39 (100)	0.002
	Primary/JHS	90 (64)	50 (36)	140 (100)	
	Secondary/Voc/Technical	83 (62)	52 (39)	135 (100)	
	Tertiary	87 (45)	105 (55)	192 (100)	

Occupation	None	23 (64)	13 (36)	36 (100)	0.000
	Student	32 (24)	102 (76)	134 (100)	
	Farmer/Fisher	8 (80)	2 (20)	10 (100)	
	Artisan/Hairdresser etc.	129 (67)	63 (33)	192 (100)	
	Government employee	56 (65)	30 (35)	86 (100)	
	Company worker	31 (65)	17 (35)	48 (100)	
Insurance status	Insured	240 (53)	212 (47)	452 (100)	0.002
	Uninsured	38 (75)	13 (25)	51 (100)	

*N represents the number of respondents of each patient characteristic

Discussion

The aim of this paper was to explore options for sustainability of Ghana's National health insurance scheme which is now facing serious difficulties as far as financial sustainability is concerned. Generally, findings from our study suggest that increasing premium as a way of generating revenue to sustain the NHIS may not receive favourable co-operation from Ghanaians, as more than two-thirds of respondents in our study were not willing to pay higher premiums. Indeed, the insignificance of premium as a reliable source of income in Ghana is obvious, considering that it contributes to only 4.5% of NHIS revenue (National Health Insurance Authority, 2011). Our findings also suggest that should there be need to increase premium it should not exceed GH¢40 ($10) per year which is the mean premium proposed. Currently the premium in Accra is GH¢24 ($6), which is about the highest in the country. De Allegri, Sauerborn, Kouyaté, and Flessa (2009) report that aside the premium, the scheme also takes registration fees. Low registration is also influenced by household heads having to register many dependents both children who qualified to be exempted but had to pay registration fees.

It is significant to note that patients in rural areas and those attending higher level hospitals were more likely to reject attempts at increasing premium. This implies that rural people who are usually farmers/fisher folks with meagre and irregular incomes are already having difficulties in paying current premium and may be worse off in the event of any increase in premium. Similarly, patients attending higher level referral hospitals may be spending more than what insurance covers including transportation costs as well as payments for drugs not covered by health insurance. Thus, the reluctance for any increase in insurance premium, since it will add to cost of health care.

Regarding increasing tax beyond 2.5%, even though about 40% of respondents were in

favour, it may be argued that this proportion is relatively higher than expected because respondents are not paying directly out-of-pocket. Notwithstanding this argument, it may also be argued that tax which contributes 73% of the insurance revenue in Ghana (National Health Insurance Authority, 2011) is the main strength of the scheme, and therefore a more acceptable option by Ghanaians. Seddoh and Akor (2012) argue that Ghana's policy makers consider an earmarked tax to be politically acceptable, as long as the new revenues would be spent on health. In spite of the tendency for consumption taxes to be regressive, evidence shows that Ghana's consumption tax is actually progressive (Akazili *et al.*, 2012). Our findings therefore suggest that in spite of the majority being against tax increase, it will be a better option in terms of sustainability compared with increase in premium. It is however, important to emphasize that the feasibility of collecting tax is beyond the scope of this study. The merits and demerits of taxation and other revenue sources of Ghana's NHIS has been well debated by Abiiro and McIntyre (2012) De Allegri *et al.* (2009) also identified operational difficulties hampering the successful development of community health insurance in sub-Saharan Africa.

With respect to exploring other sources of tax such as special tax on gold or oil revenue for health, aviation tax, communication tax on telecommunications companies and 'sin tax' on habit forming goods, the high approval for these taxes to be paid may be due to the fact that it has no direct effect on respondents' out-of-pocket payments. It may also be argued that some respondents neither understand the tax system nor the implications of taxes. On the other hand, it may be a genuine desire by respondents for 'sin tax' to be imposed in order to deter people from consuming the goods involved. It should be noted that some of these unconventional sources of taxes are explored in other developing countries. For example, the National Health Insurance Scheme in Nigeria is proposing an earmarked national tax on mobile telephone bills to finance health coverage (Joint-Learning-Network, 2016).

More than one-quarter of respondents endorsed the introduction of co-payments for out-patient care, while almost half endorsed co-payment for in-patient care. The endorsement by some respondents for co-payment is a proposal that demands a critical look. It may be argued that respondents are endorsing co-payment out of desperation, for fear of the eventual collapse of the insurance scheme and possible re-introduction of the unpopular user fees system known as "Cash-and-Carry". I A Agyepong (2013) argues that without the horrible experience of user fees, it might have been harder to get Ghanaians to embrace the concept of an alternative in the form of health insurance so enthusiastically. Irene Akua Agyepong and Adjei (2008) report that the pinch of out of-pocket fees under the "Cash-and-Carry" system was felt not only by the poorest, who usually suffer most from regressive taxation, but also by middle-income groups. Even those in the higher income brackets felt the pinch, especially given that traditional extended family structures which obliges the better off to provide financial support in times of financial crises are still strong in Ghana.

Considering the fact that in-patient costs are more likely to be catastrophic compared with outpatient costs, it is ironical that respondents were more likely to propose in-patient services for co-payments than out-patient services. The choice of co-payment for in-patient care may therefore be reluctant one. Notwithstanding the preceding argument, it is also possible that respondents have carefully thought-

through their choice. Out-patient (primary) care is more frequent and preventive in nature. Lagomarsino *et al.* (2012) argue that the tendency of past health insurance models to place emphasis on in-patient services due to its low-probability but high costs is no longer tenable, since chronic illnesses such as hypertension and diabetes which are on the rise are also costly to treat at the out-patient (ambulatory) care level. Besides, coverage of preventive and primary care has been reported to have a greater net benefit to the population compared with coverage of in-patient services (Lagomarsino *et al.*, 2012). Thus, when care at that level is covered by insurance, preventive treatment may reduce incidence of in-patient care. In view of the argument that co-payment is probably a reluctant option, policy makers may consider introducing co-payment as a temporary sustainable measure and work towards its removal in future.

Finally, the apparent rejection by respondents against limiting insurance to only primary level is an important finding. Snippets of information from a committee constituted by the government of Ghana to review the insurance scheme however, suggests that this is a key proposal of the committee. The detail modalities are not yet known, but it will be interesting to see how this will play out. It also raises fundamental questions about the principles of universal health coverage, which is that all people should have access to essential health care at affordable cost. Limiting insurance to only primary level implies that a section of the population will be denied access to secondary or tertiary level care. However, according to Kutzin (2013) it is more useful to think of UHC as a direction rather than a destination.

Conclusions

The need to reform the NHIS to ensure its sustainability is generally acknowledged by respondents. However, the feasible approach seems to be a tax option, whether through increasing the prevailing 2.5% NHIL or introducing other unconventional forms of taxes. If co-payments will be introduced, it should be a temporary measure, and it should be limited to inpatient services. Increasing premium contribution may not yield any significant effect. Limiting the exemption package to children under five years instead of children below 18 years; excluding some pregnant women from the exemption package; and limiting services to primary level only may not be popular options.

Limitations of the study

In spite of the relevance of this study, it has some limitations. First of all, there are other factors affecting financial sustainability of the NHIS. For example, Schieber, Cashin, Saleh, and Lavado (2012) observe that severe operational inefficiencies within the NHIS, particularly in processing claims is a major bane of its financial sustainability. They argue that simply increasing revenues to pay for expansions results in very poor value for money if the base system is inefficient. There is therefore the need for further research to aim at improving the operational efficiency of the NHIS.

Findings of this study may also need to be interpreted with caution, since the sample is taken from only one region of Ghana, the Greater Accra region. It may not be possible to generalize nationally. There is therefore need for a nation-wide study to validate these findings. There was no tertiary level hospital in the study, and therefore views of patients who were attending tertiary hospital at the time were not included, thus findings may

not be generalizable to all levels of care in Ghana. Finally, being a cosmopolitan area, most respondents were salaried income earners and small scale traders. Few respondents were farmers and fisher folks, whose occupations are synonymous with low incomes. However, findings from Dodowa government hospital which is rural may be more likely to be a reflection of rural populations throughout the country. Similarly, views of salaried workers may be similar across the country.

Reference

Abiiro, G. A. & McIntyre, D. (2012). Achieving universal health care coverage: Current debates in Ghana on covering those outside the formal sector. *BMC International Health and Human Rights,* 12(1), 25.

Agyepong, I. A. (2013). *Ghana NHIS @ 10: Where have we come from, what have we learned and where are we going?* 10th Anniversary Conference of Ghana's National Health Insurance Scheme. Retrieved from Accra-Ghana:

Agyepong, I. A. & Adjei, S. (2008). Public social policy development and implementation: a case study of the Ghana National Health Insurance scheme. *Health Policy and Planning,* 23(2), 150-160.

Akazili, J., Garshong, B., Aikins, M., Gyapong, J. & McIntyre, D. (2012). Progressivity of health care financing and incidence of service benefits in Ghana. *Health Policy and Planning,* 27(suppl_1), i13-i22.

Bärnighausen, T. & Sauerborn, R. (2002). One hundred and eighteen years of the German health insurance system: are there any lessons for middle-and low-income countries? *Social Science & Medicine,* 54(10), 1559-1587.

Carrin, G. & James, C. (2004). *Reaching universal coverage via social health insurance: Key design features in the transition period.* WHO Discussion Paper.

De Allegri, M., Sauerborn, R., Kouyaté, B. & Flessa, S. (2009). Community health insurance in sub-Saharan Africa: What operational difficulties hamper its successful development? *Tropical Medicine & International Health,* 14(5), 586-596.

Immergut, E. M. (1992). *Health politics: Interests and institutions in Western Europe:* CUP Archive.

Joint-Learning-Network. (2016). *National Health Insurance System, .* Retrieved from Nigeria:

Kutzin, J. (2012). Anything goes on the path to universal health coverage? No. *Bulletin of the World Health Organization,* 90, 867-868.

Kutzin, J. (2013). Health financing for universal coverage and health system performance: Concepts and implications for policy. *Bulletin of the World Health Organization,* 91, 602-611.

Kutzin, J., Ibraimova, A., Jakab, M. & O'Dougherty, S. (2009). Bismarck meets Beveridge on the Silk Road: coordinating funding sources to create a universal health financing system in Kyrgyzstan. *Bulletin of the World Health Organization,* 87, 549-554.

Lagomarsino, G., Garabrant, A., Adyas, A., Muga, R. & Otoo, N. (2012). Moving towards universal health coverage: Health insurance reforms in nine developing countries in Africa and Asia. *The Lancet, 380*(9845), 933-943.

National-Health-Insuranc-Authority. (2011). *Annual Report.* Retrieved from Accra:

National-Health-Insuranc-Authority. (2013). *Annual Report.* Retrieved from Accra:

National-Health-Insurance-Authority. (2011). *Annual Report.* Retrieved from Accra:

Schieber, G., Cashin, C., Saleh, K., & Lavado, R. (2012). *Health financing in Ghana:* The World Bank.

Seddoh, A., & Akor, S. A. (2012). *Policy initiation and political levers in health policy: lessons from Ghana's health insurance.* Paper presented at the BMC Public Health.

World Health Organisation (2005). *Sustainable health financing, universal coverage and social health insurance,* Resolution WHA58. 33. WHO, Geneva.

Witter, S., & Garshong, B. (2009). Something old or something new? Social health insurance in Ghana. *BMC International Health and Human Rights, 9*(1), 20.