Factors influencing the decision to drop out of health insurance enrolment among urban slum dwellers in Ghana

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Abstract

OBJECTIVE   To identify the factors influencing dropout from Ghana's health insurance scheme among populations living in slum communities.

METHODS   Cross-sectional data were collected from residents of 22 slums in the Accra Metropolitan Assembly. Cluster and systematic random sampling techniques were used to select and interview 600 individuals who had dropped out from the scheme 6 months prior to the study. Descriptive statistics and multivariate logistic regression models were computed to account for sample characteristics and reasons associated with the decision to dropout.

RESULTS   The proportion of dropouts in the sample increased from the range of 6.8% in 2008 to 34.8% in 2012. Non-affordability of premium was the predominant reason followed by rare illness episodes, limited benefits of the scheme and poor service quality. Low-income earners and those with low education were significantly more likely to report premium non-affordability. Rare illness was a common reason among younger respondents, informal sector workers and respondents with higher education. All subgroups of age, education, occupation and income reported nominal benefits of the scheme as a reason for dropout.

CONCLUSION   Interventions targeted at removing bottlenecks to health insurance enrolment are salient to maximising the size of the insurance pool. Strengthening service quality and extending the premium exemption to cover low-income families in slum communities is a valuable strategy to achieve universal health coverage.

keywords   health insurance, membership, dropout, slum, Ghana

Introduction

There is growing world attention on moving towards universal health coverage, and health insurance is instrumental in that endeavour. As a prepaid financing system, health insurance ensures collective pooling of risks and the redistribution of financial resources in a way that guarantees financial protection against the cost of illness (Ataguba & Akazili 2010; Evans & Etienne 2010). It also seeks to promote equitable access to health care for all people (De Allegri et al. 2009; Meng et al. 2011). However, in low- and middle-income countries (LMICs), the majority of health insurance schemes are unable to extend coverage to every segment of the population (Guy Carrin & James 2005; Hsiao et al. 2007; Preker et al. 2004).

Health insurance enrolment in LMICs tends to be inequitable as most schemes favour the few well off over the many poor, the vulnerable and low-income earners

(Yazbeck 2009). Yet these groups of people face a disproportionate share of the disease burden and need financial protection (Habtom & Ruys 2007). Even when attempts are made to provide coverage for vulnerable groups, maintaining their membership becomes problematic as they are likely to drop out due to problems associated with membership renewal (De Allegri et al. 2006a,b; Dong et al. 2009). The difficulty of enrolling and retaining membership for the less endowed is seen as a reason why schemes in LMICs often fail to secure satisfactory enrolment levels (De Allegri et al. 2009). This poses a major threat on the transition towards universal health coverage in these countries (Evans & Etienne 2010; Abiiro & McIntyre 2012; Savedoff et al. 2012).

In sub-Saharan Africa (SSA), only few health insurance schemes have attained >30% coverage of their populations (Evans & Etienne 2010; National Health Insurance Authority (NHIA) 2011). Most schemes have not been able to achieve more than 10% coverage (De Allegri

et al. 2009; Dong *et al.* 2009). Low enrolment (Arhin-Tenkorang 2004; Criel *et al.* 2004; Carrin *et al.* 2005; Basaza *et al.* 2007; Kayonga 2007) and high dropout rates (Criel & Waelkens 2003; Dong *et al.* 2009) account for this stagnating growth of schemes in SSA. Dropout in particular tends to undermine the very spirit of these schemes – to provide financial protection and facilitate access to care for individuals outside the formal sector. The decision to dropout from health insurance membership re-imposes the impoverishment and catastrophic health spending associated with the absence of insurance cover. Members of schemes who decide to dropout are more likely to be constrained in terms of access to needed care during illness (Sommers 2005). Dropout from insurance enrolment also hampers resource mobilisation for effective scheme management and creates long-term sustainability problems, especially for community-based health insurance schemes.

Given the difficulties associated with retaining health insurance membership, especially for the traditionally excluded informal sector, the need to understand the decision to dropout from insurance enrolment becomes a relevant policy and research issue. Yet in SSA, only few studies have comprehensively examined factors influencing non-renewal of insurance membership (De Allegri *et al.* 2006a,b; Basaza *et al.* 2007; Dong *et al.* 2009). Little attention has been paid to the underlying reasons from the perspectives of dropouts. The paucity of empirical research is overwhelming as governments and health policy makers need empirical evidence to justify whether investing in health insurance is an appropriate vehicle of moving towards universal health coverage.

Since the inception of Ghana's health insurance, cumulative membership has been extrapolated at 68% of the population (National Health Insurance Authority (NHIA) 2011). However, an estimated 34% of the enrolled are active members (hold valid membership cards) of the scheme (National Health Insurance Authority (NHIA) 2011; Saleh 2012). Dropout mainly account for the discrepancy between active and inactive membership of the scheme. Low active membership raises pessimistic questions about the future of the scheme and its ability to maintain equity at all levels. This makes the search for identifying the factors influencing dropout of the scheme more compelling.

We aimed to examine the decision to dropout of health insurance membership in slum communities in Accra, the capital of Ghana. These slums are inhabited by mostly low-income earners and, and migrants living in makeshift accommodation. Structural and social inequalities between planned settlements and slum dwellings disadvantage slum dwellers in terms of mortality and morbidity. Without insurance cover, many of the populations of slum communities could be pushed into poverty when paying for medical care. Identifying the reasons associated with insurance dropout could help provide policy recommendations to enhance enrolment and retention of this group in Ghana and other LMICs.

Conceptual framework of the study

The health insurance literature has consistently reported that the factors associated with an individual's decision to dropout from insurance membership include individuals' predisposing factors, scheme-level factors and provider-related factors (Schneider 2004). Individual predisposing factors are linked to the socio-economic and demographic profile of the enrollee (Mitchell *et al.* 2006; Kamuzora & Gilson 2007; Sarpong *et al.* 2010; Jehu-Appiah *et al.* 2012). In particular, income levels measured by access to employment or regular income increase the propensity to remain insured. This is so because spending limited income on insurance renewals is likely to divert resources from the consumption of other pressing goods (Gertler & Gruber 2002; Chetty & Looney 2006). Wagstaff (2000) observed that individuals are unlikely to insure as they move closer to poverty because any decrease in income can push them further towards mere survival.

An individual's health status and uncertainty about episodes of illness can significantly influence decisions on enrolment continuation or discontinuation (Mitchell *et al.* 2006). Expected utility theorists explain how individuals are risk-averse, and that influences choices about insurance uptake (Schneider 2004; Gottret & Schieber 2006). At the point of making insurance decisions, consumers are uncertain whether they will fall ill or not (Schneider 2004; Folland *et al.* 2012). A high level of certainty about relatively good health reduces tolerance for insurance uptake and vice versa. This being the case, the decision to insure and remain insured reflects in individual's risk aversion and demand for certainty.

Scheme-level factors emerging from the organisation and management of insurance schemes can translate into either incentives or disincentives for enrolment and retention. More specifically, financial and administrative disincentives emanating from the insurance design features such as premium cost, bureaucratic registration and membership renewable procedures can result in membership withdrawal (Ross & Hill 2003; Phillips *et al.* 2004; Mitchell *et al.* 2006; Basaza *et al.* 2007). Limited benefits as well as failure to provide promised benefits can negatively affect the decision to remain insured (Chankova *et al.* 2008).

There is some consensus that enrolment decisions are linked to trust for services offered by healthcare providers (Mechanic 1998; Schneider 2004). Trust is generated by clients' previous experience of quality of care, and healthcare providers' ability to offer services that meet their expectations during service use. Ideally, the insured often expect both quality and promised benefit packages. Hence, if the standard of care is perceived to be low, enrolment becomes less attractive (Jütting 2004; Mathauer *et al.* 2008).

We posit that individuals' perception about cost of premium, the provision of sub-standard quality services, perception of rare illness occurrence and scheme-level factors such as difficult registration procedures, inconvenient location of scheme office and scheme benefits can contribute to insurance dropout.

Methods

Setting

The study was conducted in urban slums located in the Accra Metropolitan Assembly (AMA) of the Greater Accra region. AMA, the oldest metropolis in Ghana, is the most populous settlement in the Greater Accra region. An estimated 17.7% of Ghana's total population lives in Accra (Ghana Statistical Service 2012) resulting in the proliferation of slum communities and peripheral sprawls, that are largely excluded from safe drinking water, sanitation facilities and health care (Fobil *et al.* 2008).

The AMA is made up of 11 administrative submetros each of which hosts at least two slum communities. Generally, 78 tenable slums accommodating an estimated 38.4% of the population of Accra exist within the AMA (UN-Habitat 2011). These slums consist of secure and insecure settlements. These two dwellings are distinguished by land tenure security and residential enclave. Secure slums are traditional Accra neighbourhoods that have been downgraded owing to population swell and tenuous economic activities that limit efforts at building and maintaining more convincing residential structures. Insecure slums are characteristic of immigrants' dwellings that have been ignored and viewed differently from wider urban dynamics and modifications. They are characterised by substandard housing, poor drainage and life-threatening conditions (Aikins & Ofori-Atta 2007).

Study design and sampling

This study used cross-sectional data collected from individuals in both secure and insecure slum communities who dropped out from the national health insurance scheme at least 6 months prior to the study. A three-stage sampling procedure was used to select respondents. In the first stage, the list of the 78 slums identified by the UN-Habitat report (2011) to exist within the AMA was mapped against their respective submetros. Subsequently, 2 slum communities from each submetro were randomly selected, resulting in a sample of 22 slums (Figure 1). In the second stage, we relied on the Census Enumeration Areas (EAs) generated by the Ghana Statistical Service (GSS) for the Population and Housing Census to select one EA from each slum using digital numbers generated by the computer (Jehu-Appiah *et al.* 2011).

In the third stage, we employed systematic sampling to select the fifth residential structure in all streets from each cluster using the probability-proportionate-to-size approach. In each selected residential structure, tenants whose insurance membership status expired half year before the study were eligible for selection. In circumstances where more than two persons within a residential structure qualified for selection, only two were randomly selected using a simple balloting strategy. Persons who renewed their membership prior to the study and were awaiting their cards were excluded. In all, 600 respondents from 520 residential structures participated in the study.

Data collection

Data were collected using a structured questionnaire divided into three parts: socio-demographic characteristics, insurance status and the reasons for non-renewal of insurance membership. The socio-demographic characteristics comprised the following: age, sex, education, marital status, occupation, home ownership and monthly income. Insurance status data comprised year and place of registration; date that membership status expired; difficulties encountered using card to access care; key reason for disenrolment and intention to renew membership in future. Based on the conceptual framework, we employed four factors as dependent variables (cost of premium, service quality, illness episode and scheme benefits) to assess reasons for membership dropout.

Questions on premium cost sought to find out whether the current premium is affordable, why it is unaffordable and whether during the last enrolment respondents incurred additional cost as part of registration. The service quality variable sought answers to questions on health providers' attitude towards the insured; discrimination against card-bearing members; availability of health providers, necessary drugs and equipment and overall experience of quality. Questions on illness epi-
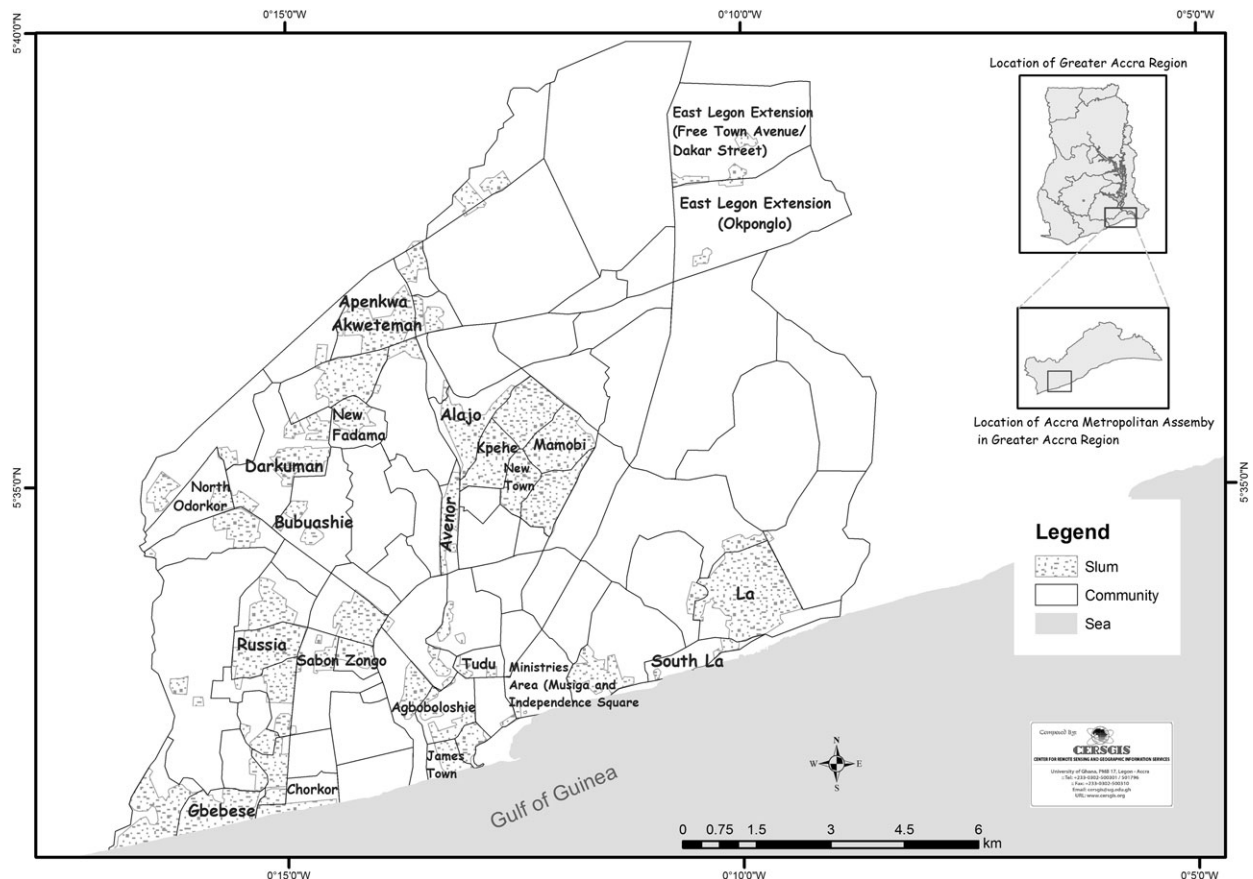
Figure 1 Slum communities selected for the study.

sodes covered self-perceived health status; beliefs about illness occurrence; injuries or illness experienced 4 weeks prior to the study. Questions on scheme benefits focused on whether at the time of enrolment the scheme was beneficial; helped alleviate cost of medical bills; covered common health problems; offered good services and offices conveniently located.

The team of data collectors visited each slum daily in the early hours of the morning to administer the questionnaire before respondents left for work. After written informed consent, eligible participants were assisted to complete the research questionnaire which was translated into a local language where necessary.

Statistical analysis

Data were analysed with the aid of SPSS version 20. Descriptive statistics were used to examine the characteristics of the sample including the proportions of dropouts in the years prior to the study. We used chi-

square analysis to explore associations between respondents' characteristics and their intention to renew membership in the future. Principal component analysis (PCA) with varimax rotation was employed to confirm the dependent measures of dropout. PCA allows for the reduction of a large number of variables that are not correlated into discrete factors (Pallant 2010). All but cost of premium were measured using 5 item-measures each. A total of 18 item-measures were loaded and the results produced four factors as contained in our original model. Two item-measures were extracted for cost of premium while all the other factors produced three item-measures each. Finally, multivariate logistic regression models were used to examine associations between the independent variables (sex, age, education, marital status, occupation, income, home ownership, place of registration) and the dependent variables. Each dependent variable in the regression model was represented by the item-measure (produced from the PCA) that was significantly associated with

Table 1 Respondents' characteristics

	n = 600 Frequency (%)
Sex	
Male	297 (49.5)
Female	303 (50.5)
Age	
20–29	310 (51.7)
30–39	147 (24.5)
40–49	78 (13.0)
50–59	51 (8.5)
60–69	14 (2.3)
Marital status	
Living with partner	263 (43.8)
Living without partner	337 (56.2)
Education	
None	55 (9.2)
Primary/junior high	83 (13.8)
Senior high	268 (44.7)
Tertiary	194 (32.3)
Occupation type	
Unemployed	194 (32.3)
Informal sector	258 (43.0)
Forma sector	148 (24.7)
Home ownership	
Rented	325 (54.2)
Rent free	174 (29.0)
Self owned	101 (16.8)
Income	
<100	169 (28.2)
100–399	250 (41.7)
400–699	86 (14.3)
700–999	61 (10.2)
1000+	34 (5.7)
Place of registration	
Within Accra	474 (79.0)
Outside Accra	126 (21.0)

GH¢1 = $3.19.

each of the independent variables at $\alpha = 0.01$ using chi-square analysis.
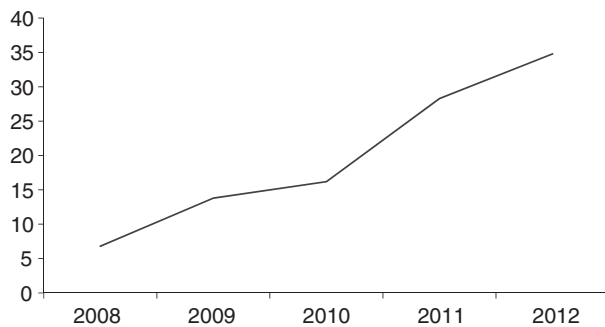
Results

Table 1 presents results of respondents' characteristics. There were slightly more females (50.5%) than males. The mean age of the respondents was 32.5, and those aged 60 years or older were the least (2.3%). The majority of the respondents were living without partners (56.2%), living in rented homes (54.2%) and registered for the scheme within Accra (79.0%). About 45% of the respondents were senior high school graduates, while 9.2% never had any formal education. Those who were engaged in the informal sector represented 43.0%. The mean monthly income was GH¢351 (US$110).

Table 2 Intention of renewing membership in future

	Yes (%)	No (%)	χ^2	Sig.
Sex				
Male	37.5	12.0		
Female	35.5	15.0	2.269	0.132
Age				
20–29	38.0	13.7		
30–39	17.8	6.7		
40–49	8.8	4.2	1.593	0.810
50–59	6.5	2.0		
60–69	1.8	0.5		
Marital status				
Living with partner	31.3	12.5	1.547	0.460
Living without partner	41.7	14.5		
Education				
None	6.7	2.5		
Primary/junior high	10.2	3.7	1.912	0.015
Senior high	31.5	13.2		
Tertiary	24.7	7.7		
Occupation type				
Unemployed	23.0	9.3	1.532	0.465
Informal sector	32.5	10.5		
Forma sector	17.5	7.2		
Home ownership				
Rented	38.0	16.2		
Rent free	23.0	6.0	5.001	0.042
Self owned	12.0	4.8		
Income				
<100	22.2	6.0		
100–399	27.8	13.8		
400–699	10.8	3.5	10.581	0.032
700–999	7.3	2.8		
1000+	4.8	0.8		
Place of registration				
Within Accra	58.8	20.2	24.83	0.015
Outside Accra	14.2	6.8		

As shown in Table 2, the majority of both males and females, youth as well as married and unmarried, expressed interest to renew their membership in the future. Many of the respondents with senior high (31.5%) and tertiary (24.7%) education were significantly more likely to renew their membership in the future ($P < 0.05$). Further, the decision to renew future membership was common for the unemployed and those engaged in the informal sector. Income, home ownership and place of insurance registration were significantly associated with intention to renew membership in the future ($P < 0.05$).

The results show that the proportion of dropouts in the sample increased from 6.8% in 2008 to 34.8% in 2012 (Figure 2). The main reason for dropping out was unaffordability of the premium followed by rare illness, limited benefits of the scheme and poor service quality (Figure 3).

Figure 2 Percentage of dropouts over time in the sample.
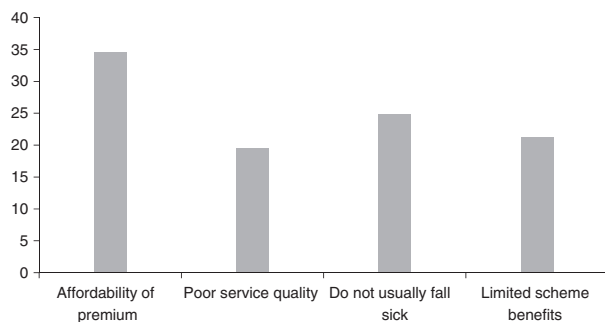
Figure 3 Main reasons for dropping out (%).

The results presented in Table 3 show that cost of premium was less likely a reason for dropout by all the different age subgroups. Compared to respondents with primary/junior high education, access to senior high education or higher significantly reduced the likelihood of attributing dropout of the scheme to cost of premium. In terms of occupation, cost of premium had less significant influence on dropout by respondents engaged in the formal sector ($\beta = -0.362$; $P < 0.05$) and informal sector ($\beta = -0.173$; $P < 0.05$), compared to the unemployed. There was a significant variation between income cohorts and the probability of reporting cost of premium as a reason for dropout. For example, whereas cost of premium was less likely to be a cause of dropout by those within the high-income cohort, it highly influenced dropout decisions by those in the low-income category.

In relation to service quality, the results reveal that compared to males, females were significantly less likely to report service quality as a reason for dropping out of the scheme ($\beta = -0.039$; $P < 0.10$). Service quality had a positive statistically significant influence on dropout among all age cohorts, although this was more pronounced for younger age categories than the aged. In

regard to education, service quality was more likely to be cited as reason for dropout by those with senior high education ($\beta = 0.022$: $P < 0.10$) and tertiary education ($\beta = 0.040$; $P < 0.05$) compared to those who had no formal education. Respondents who were living in rent-free or self-owned homes more likely attributed non-renewal of their membership to service quality in comparison to those living in rented homes.

When compared to males, females were significantly less likely to report rare illness as a reason for dropping out of the scheme ($\beta = -0.260$; $P < 0.05$). Younger respondents, more especially those aged below forty years, were significantly more likely to report rare episodes of illness as a reason for dropout. On the contrary, being fifty years or older reduces the likelihood of attributing dropout decisions to service quality. We found that rare episodes of illness played a key role for dropout by those who are not in marriage union ($\beta = 0.077$; $P < 0.05$). Rare illness showed increased likelihood of influencing dropout decisions by respondents with at least senior high education but less so for respondents from lower education background ($\beta = -0.306$; $P < 0.01$). Whereas rare illness increased dropout decisions by respondents engaged in the informal sector, it was the contrary for those employed in the formal sector, compared to the unemployed.

Perceived limited benefits of the scheme was consistently reported as a reason for dropout by all the subgroups. More specifically, limited benefits of the scheme had positive statistically significant influence on dropout decisions by females ($\beta = 0.354$; $P < 0.05$), informal sector respondents ($\beta = 0.215$; $P < 0.05$), formal sector respondents ($\beta = 0.006$; $P < 0.05$) and all age subgroups. While perceived limited benefits of the scheme had positive influence on dropout decisions by respondents with primary/junior high education and low income, the reverse was found for respondents with higher education and with high earnings.

Discussion

Our findings show that dropout of the scheme increased with increasing years of the scheme's operation. We find this pattern quite worrying because it poses a threat to the quest for universal health coverage as envisaged by the scheme. In our view, the pattern of dropout reflects the difficulty of substantially moving active membership of the scheme to at least fifty per cent of the population after a decade of operation. This pattern of dropout is also likely to deepen already existing inequalities of access to care and undermine financial protection against the cost of illness for people in slum settlements. Consis-

Table 3 Coefficients (odds ratios) of factors influencing drop-out

	Premium cost	Service quality	Illness episode	Scheme benefits
Sex (ref. male)				
Female	0.117 (1.124)	−0.039 (1.962)*	−0.260 (0.771)**	0.354 (1.424)**
Age (ref. 20–29)				
30–39	−1.864 (0.155)***	1.537 (3.585)**	1.921 (3.398)**	0.967 (2.631)**
40–49	−1.779 (0.169)***	1.674 (2.510)*	1.709 (2.492)*	1.321 (3.747)***
50–59	−1.846 (0.158)***	1.279 (2.756)*	−0.706 (0.494)	1.144 (3.140)**
60–69	−2.065 (0.127)***	0.916 (1.400)**	−1.354 (0.258)***	1.127 (3.086)**
Marital status (ref. living without partner)				
Living without partner	0.046 (1.047)	0.111 (1.895)	0.077 (1.080)**	−0.219 (0.804)
Education (ref. none)				
Primary/junior high	0.265 (1.303)**	0.343 (1.409)	−0.306 (0.736)***	0.254 (1.289)**
Senior high	−0.587 (0.799)***	0.022 (1.018)*	0.001 (1.001)***	−0.270 (0.764)**
Tertiary	−0.681 (0.975)***	0.040 (1.041)**	0.564 (1.758)**	−0.289 (0.749)**
Occupation type (ref. unemployed)				
Informal sector	−0.173 (0.189)**	0.126 (1.134)	0.279 (1.321)*	0.215 (0.807)**
Formal sector	−0.362 (0.437)**	−0.053 (0.949)	−0.016 (0.984)	0.006 (0.994)**
Home ownership (ref. rented)				
Rent free	0.195 (1.909)	0.305 (1.357)**	0.371 (1.450)	0.089 (1.093)
Self-owned	−0.045 (0.546)	0.026 (1.026)**	−0.011 (0.989)	0.668 (1.950)**
Income (ref. <100)				
100–399	0.916 (2.499)**	0.125 (1.133)	−0.109 (0.897)	−0.953 (0.386)**
400–699	1.009 (2.744)**	−0.277 (0.758)	−0.035 (0.966)	−0.982 (0.375)**
700–999	−0.583 (0.791)**	0.330 (1.391)	−0.249 (0.779)	0.708 (1.493)**
1000+	−0.576 (0.778)*	0.104 (1.110)	−0.308 (0.735)	0.869 (1.419)**
Place of registration (ref. within Accra)				
Outside Accra	0.061 (0.941)	−0.001 (0.999)	0.026 (1.027)	0.201 (1.223)

*Significant at 10%.
**Significant at 5%.
***Significant at 1%.
Odds ratios are presented in parenthesis.

tent with existing evidence, the most highly mentioned reason for membership dropout related to affordability of premium (De Allegri *et al.* 2006a,b; Mitchell *et al.* 2006; Basaza *et al.* 2007).

Cost of premium had differential effect on dropout across socio-economic status. Low-income earners and those with only basic education were more likely to drop out on the basis of premium cost. This finding corroborates previous studies that in the absence of premium subsidies, individuals in the low-income bracket may encounter problems with enrolment (Carrin *et al.* 2005; Mathauer *et al.* 2008; Meng *et al.* 2011), perhaps because spending limited income on insurance enrolment is likely to affect fulfilling of other pressing needs. Thus, rather than investing for future health benefits which appears uncertain, low-income earners may refuse insurance cover in order not to be made worse off while paying for insurance. We suspect that individuals with basic education who are less likely to be gainfully employed may also be constrained in terms of ability to afford the cost of premium.

Our findings demonstrate that supply-side factors relating to service quality are a contributory factor to dropout of the health insurance scheme (De Allegri *et al.* 2006b, 2009). We attribute this to existing but weak evidence that prepayment systems rarely contribute meaningfully to improving hospital resource levels or the efficiency with which care is provided (Hsiao *et al.* 2007; Spaan *et al.* 2012). In other words, health insurance generally contributes less to quality care in provider institutions partly because increases in utilisation tend to put upward pressure on health facilities.

The decision to dropout on grounds of quality was significantly more pronounced for women, in all age groups, respondents with tertiary education and informal sector workers. A possible explanation for this pattern is that the expectations of these people regarding receiving good quality of care were not met at the time of enrolment. Apart from this, providers sometimes run out of essential drugs and other medical equipment necessary for healthcare delivery (Atinga *et al.* 2012), and this can affect enrolment decisions. A good documented

example comes from a qualitative study on the demand for health insurance among the informal sector in Kenya. Mathauer *et al.* (2008) established that the insured questioned the essence of insurance if they had to pay for drugs that are covered but not available in health facilities.

It emerged from this study that illness episode is significantly less considered as a reason for dropout among women. In our view, this is to be expected, because women have more episodes of illness and more physician contacts than men. Therefore, they might optimistically remain insured to avoid the cost of paying for medical care. Moreover, it is possible that high illness-reporting behaviour among women makes health insurance desirable in their health-seeking process. The fact that younger respondents attributed dropout to rare illness suggests two possible underlying factors. First, we associate it with the prospect theory preference for health insurance demand. Because individuals and by implication younger populations are risk seeking, they make insurance decisions based on the expected gains and losses (Schneider 2004). If the younger population perceives their risk level and the eventual deviation from it to be low, it is more obvious that they will dropout. This contrasts sharply with the aged whose preference for health insurance reflects demand for certainty and risk aversion (Begg *et al.* 2003; Herndon *et al.* 2008).

Second, we suspect the presence of adverse selection, especially in this context where younger populations with low literacy levels, and limited knowledge of insurance incentives, are more likely to attribute insurance decisions to illness occurence. Moreover, as enrolment in the scheme is not mandatory for the informal sector, adverse selection is thought to emerge when the young only renew their membership if and when they fall sick (Saleh 2012). Further research is required to confirm the veracity of this finding in particular. It turned out that the decision to drop out among individuals with high education is significantly linked to rare illness, which is surprising to us. As education generally enhances knowledge of healthcare cost as well as how and when health expenditure becomes catastrophic, we expected a positive relationship.

We found that, consistent with existing evidence, respondents linked dropout to benefits of the scheme (Boateng & Awunyor-Vitor 2013). This may be explained by two factors: first, since the scheme's inception, a major concern for the insured has been the difficulty of locating its offices for registration and renewals, long waiting periods for administrative processing of membership cards and lack of confidence in the scheme (Jehu-Appiah *et al.* 2011). We speculate that these prob-

lems, which characterise the scheme's operation, might be contributory factors to dropout. Second, and more importantly, the expected pay-off that the insured will receive in times of illness is viewed to be inadequate, largely because the scheme does not cover all drugs, antiretroviral drugs and even common appliance and prostheses for optical aid, heart aid, orthopaedic aid, dentures, etc. The scheme covers about 95% of common illness in Ghana. In practice, however, providers seldom include all benefits captured in the insurance protocol due to low tariff levels (Atinga *et al.* 2012). Our finding that dropout by the so-called high-income earners has to do with benefits of the scheme is not especially surprising, and is consistent with the existing literature that as individuals move up the income ladder, they become indifferent to public insurance benefit, simply because they can afford to pay out-of-pocket for services or take up private health insurance that offers more generous benefits (Gottret & Schieber 2006).

Conclusion

The policy implications of our study are manifold. The findings throw a challenge to the scheme's management to adopt series of pragmatic strategies to minimise dropout rate. To begin with, the scheme's management should constantly highlight the communal nature of the scheme, especially targeting the younger populations and even well-informed educated individuals to discourage the notion that there are no incentives to enrol unless struck by illness. Dropout across populations on the basis of poor service quality could be minimised by employing a variety of administrative strategies to hold healthcare providers accountable to clients. First, training quality assurance representatives to monitor service delivery in health facilities can result in improvement of quality of care. Second, steps should be taken to negotiate contracts for cost and quality with providers, because contracts that reimburse them for service provision provide minimal incentives to provide services that meet client expectations. Such contracts can compel healthcare providers to offer a wide range of benefits covered by the scheme. To make the premium more affordable to low-income earners, we recommend differentiated premiums based on households' ability to pay to replace the current regressive flat-rate contributions. This is important because, premiums are supposed to vary by income; in practice, however, they are fixed at one level for all. Civil society organisations can also provide partial answers to dropout by contributing part payment of premiums for eligible populations (Meng *et al.* 2011).

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