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Vertical equity in access to health insurance services: An exploration of perceptions and enrolment in the Jirapa Municipality, north-western Ghana

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ABSTRACT

Given concerns about the spiralling cost of health services in low and middle-income countries (LMICs), this study draws on a framework for assessing poverty and access to health services to ascertain progress towards achieving vertical equity in the National Health Insurance Scheme (NHIS) in a rural setting in northern Ghana. Rural-urban disparities in financial access to NHIS services are seldom explored in equity-related studies although there is a knowledge gap of progress and challenges of implementing the scheme's vertical equity objectives to inform social health protection planning and implementation. A qualitative approach was used to collect and analyse the data. Specifically, in-depth interviews and observation were deployed to explore participants' lived experiences, the relationship between location, livelihoods and ability to pay for health insurance services. The article found that flat rate contributions for populations in the informal sector of the economy and lack of flexibility and adaptability of timing premium collections to the needs of rural residents make the cost of membership disproportionately higher for them, and this situation contradicts the vertical equity objectives of the NHIS. The study concludes that the current payment regimes serve as important deterrence to poor rural residents enrolling in the scheme. Based on this, we advocate strict adherence and implementation of the scheme's vertical equity measures through the adoption of the Ghana National Household Register (GNHR) as a tool for ensuring that contributions are based on income, and collection is well-timed.

1. Introduction

While global support for Universal Health Care (UHC) is on the rise, scholars in this field have questioned whether health services across the globe have delivered on equity. They argue that those who are poor in income have remained poor in health (Mooney, 2000; Kotoh et al., 2018). The same is true for minority ethnic groups and indigenous peoples, and in some cases gaps in ill-health have increased (WHO, 2017). The National Health Insurance Scheme in Ghana (NHIS) has made significant progress in terms of enrolment of members, which has had a commensurate increase in the utilisation of health care services (Mills et al, 2012; NHIA, 2019; Nsiah-Boateng, Nonvignon, et al., 2019), yet questions are raised about progress towards achieving its equity objective of ensuring that every Ghanaian resident, irrespective of income status and or location, has financial access to primary health care. This article contributes in-depth stakeholder perspectives to the discourses around equitable and progressive health financing in LMICs. It analyses perceptions of vertical inequity in access to health insurance services and implications for eliminating disparities in health care access among urban and rural populations.

Promoting equity in health care access through pre-payment arrangements such as national health insurance schemes has increasingly gained political support in low- and middle-

income countries. It has been argued that reliance on out-of-pocket payments (OOP) for health has led to close to half the world's population still lacking access to essential health services. Additionally, some 800 million people are trapped in catastrophic health spending, and close to 100 million people are impoverished each year because of out-of-pocket health expenses (WHO, 2017). To reverse these statistics, the World Bank Group and the World Health Organisation (WHO) have been supporting countries to implement pro-poor health financing programmes to enable them to increase access to essential health services, eliminate catastrophic health spending, and transition towards UHC by 2030¹. To this end, Universal Health Coverage has become a preferred health policy objective in implementing countries because in theory it guarantees equitable financial protection against the costs of illness and makes it possible for all residents to have access to needed health care (Borghgi, 2011; McIntyre & Mills, 2012; WHO, 2010). While research shows that people living in countries that have achieved UHC live longer and healthier than those living without it (Ranabhat, Atkinson, Park, Kim, & Jakovljevic, 2018), another important argument for the policy is that it is an investment in human capital and a foundational driver of inclusive and sustainable economic growth and development (Owusu, 2014; Tangcharoensathien, Mills, & Palu, 2015; WHO, 2017). It is no surprise therefore, that, in 2015, all United Nations (UN) member states

¹ The WHO defines catastrophic health expenditure as household spending on health that exceeds 25% of its total expenditure (WHO 2015).

committed to achieving Universal Health Coverage through the health-related sustainable development goal three (SDG 3) (Witthayapipopsakul et al., 2019).

Prior to the UN member states UHC reforms declaration, Ghana had passed the National Health Insurance Act (NHIA) in August 2003 and commenced implementation in 2004 (Ramachandra & Hsiao, 2007). A series of reforms characterised the NHIA's health financing trajectory, but perhaps a significant starting point would be the free health care programme that followed Ghana's attainment of independence from British colonial rule (Agyepong & Adjei, 2008). The new government, led by Kwame Nkrumah, adopted a welfare system and used taxes to finance public sector health services that included free health care for all (Agyepong & Adjei, 2008; Agyepong, Orem, & Hercot, 2011; Chankova, Atim, & Hatt, 2010). Health financing reform again became central to the government's policy initiatives in the 1980s and 1990s when it subscribed to implement the IMF/World Bank Structural Adjustment and Economic Recovery reforms. As part of the reforms, public sector user fees for health care, also known as the 'cash-and-carry system', was introduced in 1985. While this policy measure resulted in improved supply of essential medicines and quality health care delivery in general, it created inequities in financial access to primary health care services (Chankova et al., 2010; Mensah, Oppong, & Schmidt, 2010; Waddington & Enyimayew, 1989). Other studies observed that financial barriers, ushered in by the cash-and-carry system, forced poor households to postpone medical treatment, resort to self-medication, or rely on unlicensed medical practitioners, which might have harmful consequences (Oppong, 2001). Although mutual and community health financing schemes were implemented across the country to soften the harsh consequences of the 'cash-and-carry' system, the most comprehensive national health financing reform programme since Nkrumah's free health care project was the introduction of the NHIS (Agyepong & Adjei, 2008). Although the scheme has made progress both in terms of enrolment and uptake of health care services, it has not delivered on vertical equity.

This study draws on a framework for assessing financial access to health services in resource-poor contexts to explore vertical equity in the distribution of the cost of national health insurance contribution among rural and urban residents in a municipality in one of the most impoverished regions in Ghana. It shifts away from the often-simplified interpretation of equity as fairness or justice (Whitehead, 1991), to a specific operational dimension known as vertical equity in the NHIS and explores whether implementation is in consonance with the vertical equity objectives of the scheme. The latter is the main focus of this study because, as some studies have observed, health services across the world have failed to deliver on vertical equity particularly for indigenous and rural populations (WHO, 2017, Mooney, 2000; Whitehead, Dahlgren, & Evans, 2001). More particularly, a series of surveys including the Ghana Living Standards Surveys (GLSS 6) (Cooke, Hague, & McKay, 2016; GSS, 2014b)², the

Ghana Poverty Mapping Study (GSS, 2015) and findings of the ongoing Ghana National Household Register survey (GNHR, 2021) have consistently found the incidence of poverty to be higher in rural areas than in urban areas. However, the extent to which this phenomenon might influence enrolment in the scheme has not been specifically researched. Previous studies have tended to focus almost exclusively on the socio-economic circumstances of households or individuals as the main determinants of enrolment in the scheme (Abihiro & McIntyre, 2012; Alatinga & Williams, 2019; Atinga, Abihiro & Kuganab-Lem, 2015; Nsiah-Boateng, Nonvignon, et al., 2019; Nsiah-Boateng, Ruger, & Nonvignon, 2019). In the context of a policy shift on health financing in Ghana, the findings of this study are useful for triggering policy reform and redesigning relevant operational strategies to enable the scheme to achieve its vertical equity objectives as well as contribute to the body of knowledge on equity in NHIS enrolment and progress towards attaining UHC and the SDGs.

2. Equity in health care: A health insurance perspective

Equity is primarily concerned with fairness and justice (Wagstaff, Van Doorslaer, & Paci, 1989; Whitehead, 1991). However, the practical application of such concepts has often been met with interpretation and prioritisation difficulties (Donaldson & Gerard, 1993; Jan & Wiseman, 2011; Mooney, 2000; Whitehead, 1991). In the discourses around health care access, equity is often interpreted as providing adequate health care for all residents (Jan & Wiseman, 2011; Whitehead, 1991; Whitehead et al., 2001). This definition, however, is shrouded in ambiguity and, therefore, inadequate when the focus is on implementing a specific policy on equity in health. Vertical equity is concerned with treating individuals or communities who are unequal differently in a way that is seen to be commensurate with their relative disadvantage. This differs from horizontal equity, which focuses on ensuring that people in the same circumstances are treated the same (Domapielle, Akurugu, & Mdee, 2020; Donaldson & Gerard, 1993; Whitehead et al., 2001). Vertical equity has been the focus of some health systems because it serves as a form of positive discrimination to promote equity in health services delivery. For example, the use of resource allocation formulae in Canada, Australia and South Africa, and user fee exemptions in Cambodia represent vertical equity measures aimed at distributing resources to reflect the health needs of disadvantaged population groups including indigenous and rural residents (Donaldson & Gerard, 1993; Jan & Wiseman, 2011; Mooney, 2000; Whitehead, 1991). The financial objective of vertical equity is usually about ensuring that payment for health care reflects users' ability to pay.

The NHIS has a vertical equity objective anchored in Act 852, section 28 of the Legal Instrument that established the NHIA, which states that informal sector contributions be graduated according to income (NHIA, 2012). Thus, in theory, contributions are to be based on ability to pay. In accordance with this legal requirement, vulnerable groups such as indigents, beneficiaries of the Livelihood Empowerment

² Households in urban areas continue to have a much lower average rate of poverty than those in rural areas (10.6% versus 37.9%). However, urban poverty has dropped much faster in recent years than rural poverty and as a result, the gap between urban and rural areas has doubled – rural poverty is now almost four times as high as urban poverty compared to twice as high in the 1990s (Cooke et al., 2016).

against Poverty (LEAP) programme, pregnant women, children under the age of 18, adults above 70 years and Social Security and National Insurance Trust (SSNIT) pensioners are exempted from paying the fixed contributions. However, flat-rate levies on populations outside the formal sector, and lack of flexibility in the collection of these contributions appear to contradict the vertical equity objective of the scheme. It is important to delve deeper into this issue because previous studies in LMICs have observed that exemption schemes targeting specific vulnerable groups (such as pregnant women, children under 5 years of age, and the elderly) are often relatively effective. However, exemption packages that require means-testing to identify beneficiaries tend to be less effective due to the difficulty of appropriately assessing eligibility (Borghi, 2011; Witter & Garshong, 2009). Two reasons are associated with this. The first is the absence of reliable income records for a large proportion of the population working in the informal sector of the economy to ascertain how much users can pay and eligibility for exemption. The second reason is the stringent and sometimes inappropriate criteria used in assessing eligibility for exemption. For these reasons, premiums are charged at a flat rate; mostly unaffordable to the poor (Apoya & Marriott, 2011; Averill & Marriott, 2013; Schieber, Cashin, Saleh, & Lavado, 2012; Witter & Garshong, 2009).

Fortunately, a significant policy measure is currently being implemented by the GNHR, a unit under Ministry of Gender, Children and Social Protection to establish a single national household register from which social protection programmes will select their beneficiaries. The GNHR is mandated to streamline and make more efficient the targeting system in the country by using the same Proxy Mean Test indicators (Common Targeting Mechanism) in the identification of potential beneficiaries for social protection interventions (GNHR, 2021). This register will make available income records of people working in the informal sector. Some progress has already started in this regard and all the households in the two poorest regions in the country, the Upper West and Upper East Regions, have already been registered. The information generated and documented in the register will enable the scheme to accurately identify indigents and other vulnerable groups to benefit from exemptions, as well as to ensure that contributions by populations in the informal sector are graduated according to income, and the timing of collection is favourable.

Another important, yet often ignored, equity consideration is the timing for collection of health insurance contributions. A few studies have discussed the importance of appropriately timing the collection of health insurance contributions from different socio-economic groups and arrived at the conclusion that the timing of collection of contributions is likely to affect enrolment. For this reason, schemes should design suitable payment schedules that take into consideration the nature, timing and income sources of households (Carrin, 2003; Cohen & Sebstad, 2006; De Allegri, Sanon, & Sauerborn, 2006; Owusu, Afutu-Kotey, & Kala, 2012; Wipf, Liber, & Churchill, 2006). As a general rule, the best time to collect contributions is when users have cash, for example, during or immediately after farmers have harvested their food crops, or when they receive a loan or a government cash transfer (Wipf

et al., 2006). The NHIS has recognised the importance of timing the collection of contributions by instituting in its design a requirement that municipal and district schemes have different registration periods; major and minor seasons, with the major one set to coincide with agricultural cycles (Owusu et al., 2012). The Jirapa Municipal Health Insurance Scheme operates an open registration system throughout the year, although 82.7 per cent of its population is employed in seasonal agriculture. This raises concern that a significant portion of its rural population might be excluded from the scheme.

3. Conceptual framework for assessing vertical equity

The framework for effective implementation of vertical equity revolves around the concept of “affordability of health services”. Based on the review of literature, two interlinked dimensions of access are key for conceptualising a framework for the study, and these include costs and mode of paying NHIS contributions and users’ ability to pay. This framework presents affordability as a two-dimensional concept, and one that disaggregates the broad concepts into two interconnected dimensions that makes it possible to firstly, evaluate the achievement of the scheme’s vertical equity objectives and to secondly, identify appropriate measures for improving the implementation of vertical equity in the NHIS. Figure 1 is the conceptual framework for assessing vertical equity in the NHIS. It reflects the relationships between the affordability of health services, cost and mode of paying NHIS contributions and users’ ability to pay and implications of this relationship on equitable enrolments and uptake of health care. Affordability refers to the relationship of prices of health care services and users’ ability to pay in the context of the household budget and other demands on the budget (McIntyre, Thiede, & Birch, 2009; Penchansky & Thomas, 1981).

Ability to pay refers to the individual’s capability to secure funds from their household and other demands placed on those potential sources of funds (Aday & Andersen, 1974; McIntyre et al., 2009; Penchansky & Thomas, 1981). These include, firstly, the eligibility of individuals to secure health insurance to cover the costs of health services at the time-of-service use; secondly, the ability of the household to pay for the service at the point of use, including the amount, timing and frequency of income flows, and the individual’s ability to draw on these sources of income; and thirdly, the ability to secure formal credit arrangements. The notion of catastrophic spending on health care is also crucial in the analysis of affordability of health services. Some people may only be able to pay the full costs of health services at the expense of other basic household needs (ILO, 2008; McIntyre et al., 2009; WHO, 2015). The ensuing section describes the methodology of the study.

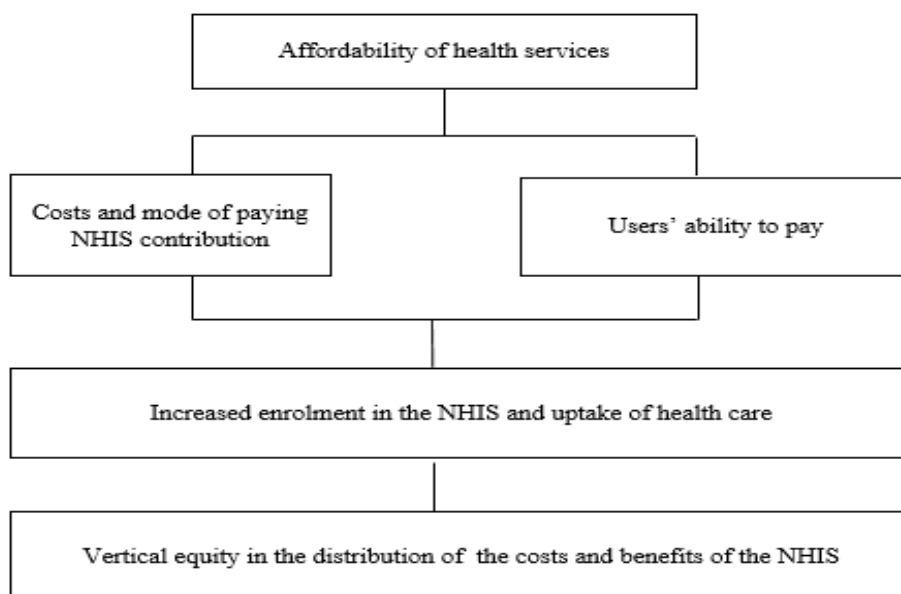


Fig. 1| Conceptual framework for assessing vertical equity

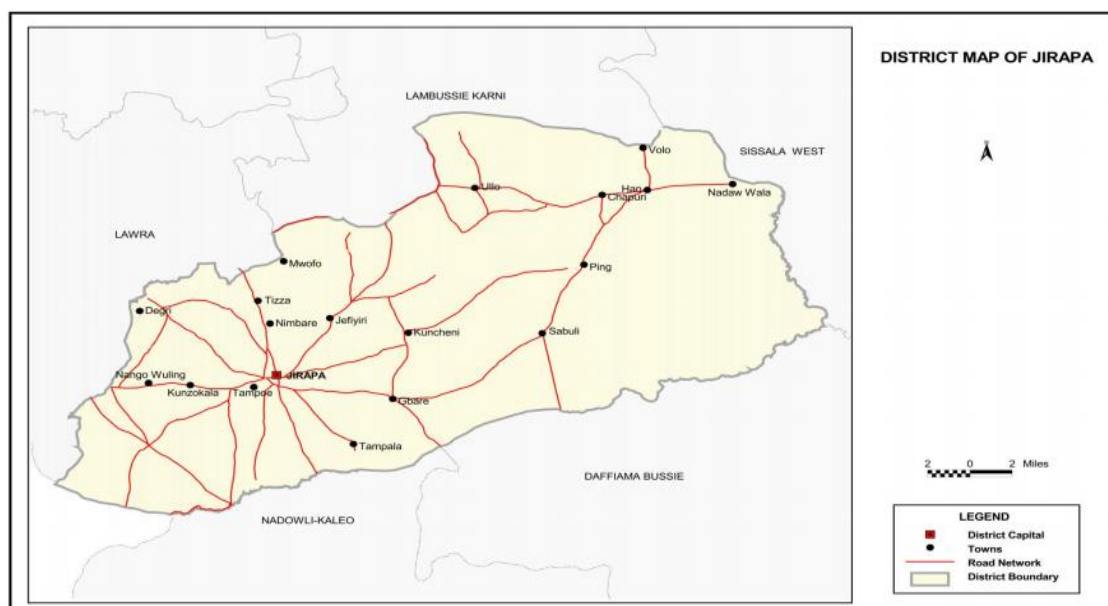


Fig. 2| Context map of Jirapa Municipality

Methods

4.1 The study context

The Jirapa Municipality, established by LI 1902, was carved out of the then Jirapa-Lambussie District in 2007 as part of the expansion and deepening of Ghana's decentralisation process (GSS, 2014a). The district is located in the north-western part of the Upper West Region of Ghana³. It is one of eleven municipalities/districts in the region. The Jirapa Municipality lies approximately between latitudes 10.25° and

11.00° North and longitudes 20.25° and 20.40° West with a territorial size of 1,188.6 square kilometres representing 6.4 per cent of the total regional landmass (GSS, 2014). Jirapa Municipality is bordered to the north by the Lambussie-Karni District, to the south by the Nadowli-Kaleo District, to the east by the Sissala West District and the West by Lawra District. The capital, Jirapa, is 62 km away from Wa, the regional capital (GSS, 2014a). Figure 2 is a context map showing the boundaries and some of the major communities of the municipality where data for this article were collected.

³ The Upper West is the poorest region in Ghana. Its poverty statistics are as high as 66%, 18% and 16% representing extremely poor, poor and no-poor, respectively.

The municipality has a population of about 102,767, and 85.6 per cent of this number reside in rural areas (GHS, 2020). Agriculture is the main livelihood activity, and an estimated 82.7 per cent of households are engaged in subsistence agriculture (GSS, 2014). Three different surveys have found that income poverty in Ghana is disproportionately higher in rural areas, and is highest among subsistence farmers (Cooke et al., 2016; GSS, 2015, 2018). The municipality is located in the Upper West, the most impoverished region in Ghana as mentioned earlier. Poverty statistics in the Upper West Region are as high as 66%, 18% and 16%, representing extremely poor, poor and no-poor, respectively (GNHR, 2021). Douri, Yaga, and Tuggo⁴, where this study was carried out are three of the six underserved sub-municipalities in the Jirapa Municipality. Current NHIS membership covers 52 per cent of the population of the municipality, but active contributors constitute only 23.5 per cent of the population (NHIS, 2020). A combination of these statistics and the high incidence of poverty in the municipality suggest that a significant segment of the population outside the exempt categories would encounter difficulties in an attempt to raise enough funds to pay for NHIS membership.

4.2 Study design

A qualitative approach was employed in the collection and analysis of data. In addition to reviewing relevant literature on equity and financial access to health services, the study collected data through in-depth interviews, observation and relevant secondary sources between 2015 and 2020.

4.3 Sampling strategy

Multi-stage sampling was employed to select the study municipality, sub-municipalities, communities in the sub-municipalities, and the research participants (See figure 3). The Jirapa Municipality was selected because, although mostly rural, it has a sizeable urban population that satisfactorily enables the exploration of rural-urban differences in financial access to health services. The second stage involved the selection of sub-municipalities within the municipality. The Jirapa urban sub-municipality and three rural sub-municipalities including Douri, Tuggo and Yaga, were purposively selected from a total of seven to represent geographically and economically diverse areas. In each of the four sub-municipalities, three communities were purposively selected on the basis of population size, location and livelihood activities. Thus, in each sub-municipality, the first community selected is the most populated, centrally positioned and one that provides diverse social and economic services to rural communities within the catchment area. The remaining two are predominantly farming villages that are at least 5 kilometres away from the central community.

4.4 Sampling of participants

Similar to the mode of selecting the municipality, sub-municipality and communities, key informants were purposively sampled for the study. A total of 33 participants (key informants) provided information for the study. The participants' categories included two NHIS officials, 24 users of health services (enrolled, previously enrolled and never

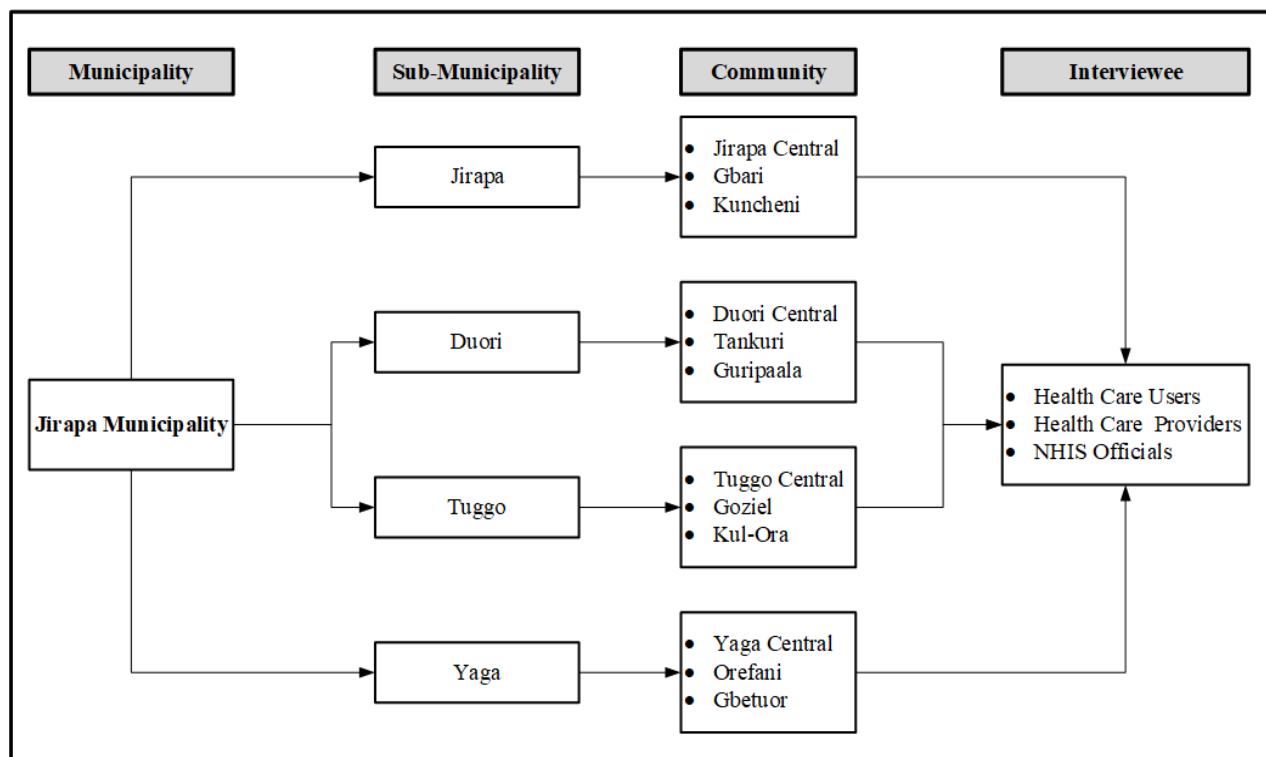


Fig. 3 | Multi-stage sampling strategy employed for the study.

⁴ The sub-municipalities of Douri, Yaga, Tuggo, and Jirapa Urban of the Jirapa Municipality were selected from a total of seven sub-municipalities for this study.

enrolled), four health providers and two health administrators. Aside from a gender balance, other critical considerations for selection were locality and enrolment statuses of participants, their understanding of health insurance issues in the municipality and willingness to participate in the study. From the 24 users who participated in the study, 12 were selected from rural areas, and 12 were urban residents. The even distribution of participants was to ensure balanced coverage of perceptions of users from both rural and urban areas on the subject of vertical equity in the implementation of the NHIS. Each sub-municipality had six participants. From this number, two (a male and a female) were sampled from the central community of the sub-municipality, and four (2 females and 2 males) were selected from the other two communities. In addition, four heads of sub-municipal health centres, a public health nurse at the Jirapa Municipal health secretariat, a midwife and a medical doctor at the Jirapa Municipal Hospital and one official from the regional health directorate was invited to participate in the study, primarily to cross-validate the perspectives from the municipal and sub-municipal levels. This group of participants were sampled for the study because their respective roles in the health system made their contributions relevant in addressing the research questions.

The last group of participants were four officials of the NHIS. This category of participants demonstrated a good understanding of the dimensions of access to health care in the municipality, including the prospects and challenges of expanding health insurance coverage to underserved areas.

4.6 Data collection

Face-to-face in-depth collection techniques and non-participant observational techniques were used to collect data for the study. Face-to-face in-depth interviews allowed the chance to explore or probe for unclear responses to interview questions. Interviews were conducted in English for interviewees who spoke it, and in Dagaare (the local language) for non-English speakers. Interviews were audio-recorded and transcribed. Quotations/participants' views were de-identified after the analysis.

Non-participant observation was also carried out to compliment data gathered via interviews. For example, in the absence of records on household income levels, we relied on proxy indicators, such as the types of houses interviewees lived in, to get a sense of their socioeconomic status, and for ascertaining households' ability to pay for health services. Houses built with mud and roofed with thatch were an indication of the households' low level of income, which shows that members of such households may be facing challenges in paying out-of-pocket to access health services. However, houses built with cement bricks and roofed with zinc sheets or baked roofing tiles were a reflection that members may be relatively well-off (Brockington, Coast, Mdee, Howland, & Randall, 2019), and thus able to pay out-of-pocket for health services with greater ease.

4.5 Data processing and analysis

Following the collection of data, thematic analysis framework was deployed to analyse the dimensions of equity of access to

health care services in the municipality. Thus, the analytical process started right from the stage of developing the data collection instruments where the questions were structured to focus on the vertical equity dimension of the framework. The process involved transcribing and getting familiar with the data. It also involved reading each interview transcript line by line, noting down repetitions, similarities and differences that were relevant to the research questions. For example, if 'users' mentioned lack of money as the reason they failed to enrol or renew the membership, we would write this down under 'Affordability – lack of money'. In the margins of each page, we wrote down the main themes that had come from the page's conversation. From this preliminary analysis, we examined the themes a second time and then put them into the thematic networks. For the final phase, we used the soft copies of the transcripts to pull together the segments of data that represented each theme and developed qualitative analysis by analysing in detail what users, providers, officials of the NHIS said about these themes and what they signified in relation to the research question. In terms of secondary analysis of data, the article draws significantly on findings of the 5th and 6th rounds of the Ghana Living Standard Surveys (GLSS 5 and 6), the 2010 Ghana Population and Housing Census report, annual reports of the Ghana Health Service and the Ministry of Health, and annual reports of the NHIS.

4.7 Quality assurance and analytic rigour

Ethical issues involving research with human participants, including anonymity, confidentiality and consent were considered at the outset of the research. Following the selection of the municipality, permission was obtained from the Regional and Municipal Health Directorates to carry out the study. Approval was also obtained from the Regional Director of the National Health Insurance Scheme and the Municipal Manager of the Jirapa Municipal Health Insurance Scheme to interview the staff of the NHIS for the study. Written/thumb printed (where research participants did not have formal education) informed consent was sought and obtained from all participants before conducting each interview. Participants were made aware that their decision to participate in the study was completely voluntary and that they were free to withdraw from the study at any time, and they could skip any question(s) they did not wish to answer. All information provided by participants was treated as strictly confidential.

5. Results

Two themes emerged from the analysis of the data: cost of NHIS contributions and rigidity in premium payments. As the ensuing results demonstrate, difficulties in paying membership contributions and the lack of flexibility in timing the collection of contributions are challenges faced mostly by rural residents in the municipality.

5.1 Cost of NHIS contributions

5.1.1 Perspective of rural residents

In terms of the cost of NHIS contributions, the analysis produced mixed results. Users, providers, and NHIS agents

attributed the failure to enrol or dropping out of the scheme, to expensive premiums. They argued that large household sizes, subsistence livelihood activities, and irregular flow of incomes are factors that make payment of premiums difficult. Like most rural residents interviewed for this research, a household head from Kol-Ora whose farm produce were barely enough to feed his household of eight people had this to say when asked about his ability to pay the NHIS premiums for his household.

“I have only managed to raise money for my three younger children. My older children are not covered by the scheme because there is no money to pay for their contributions and to renew the cards every year”.

His view on the expensive nature of the premiums was backed by opinions expressed by the majority of the urban residents we interviewed. They explained that most rural households are trapped between extreme and relative poverty⁵, and this prevents them from enrolling and remaining in the scheme. An interview participant from Jirapa informed us that:

“Most of the villagers find it very difficult to get two meals in a day because of poverty. It is even worse during certain periods of the dry season. So, raising funds to pay for health insurance is almost impossible for them”.

Health providers who participated in this study expressed views that are consistent with the perspectives of users on the cost of premiums. A medical doctor at the Jirapa Municipal Hospital and a public health nurse at the Jirapa Municipal Health Directorate shared the opinions expressed above by adding that rural residents are the most affected by the high costs of premiums. They focused on the large sizes of households in these areas and argued that the subsistence farming they rely on for income would not generate enough to pay for health insurance. The public health nurse explained that:

“When you compare the cost of premiums to user fee charges, you would conclude that the premiums are far lower and affordable. However, when you analyse the costs of premiums for a rural household per annum, you would realise that the majority of them cannot enrol in the scheme”.

Another finding that emerged as a consequence of expensive premiums is adverse selection, a situation where those with high health risk profiles such as women and children are insured, and those with a lower chance of getting sick abstain. The majority of the participants expressed that large household size coupled with the seasonality of incomes in this context make it difficult for them to raise enough money to pay the premiums of every member of the household. This has forced households to resort to adverse selection. A resident of Yaga, who heads a household was one of the interviewees who lamented about selecting out of the scheme as a result of the inability of his family to raise enough funds

to purchase health insurance. In relation to the cost of premiums, he informed us in an interview that:

“I just managed to raise enough money for my wife and two of my younger children. My three older sons and I have dropped out of the scheme because it is too expensive, and we couldn't afford it.”

This view was validated during interactions with officials and agents of the NHIS. In their estimation, about 90 percent of enrollees are within the exempt group, which includes pregnant women, the elderly, aged 70 years and above, as well as indigents. And more than half of the remaining 10 percent are unable to renew their membership on time. The rest renew their membership only when they are sick and need treatment at a health facility. An official of the scheme shared with the researchers that:

“When you see somebody here [NHIS office] very early in the morning waiting to renew a card for themselves or for a family member, they are sick and need insurance cover to go to the hospital. And this happens all the time”.

Interactions with the NHIS agents confirmed that poor households were adversely selecting in the scheme. They explained that to avoid catastrophic spending, men normally abstain or select out of the scheme to allow their wives and children to enrol because they are more vulnerable to sickness. An agent explained that:

“The premium is not affordable at all. Looking at our condition here in Jirapa many people cannot afford it. Initially, it was GhC7.20 per adult and children were not paying once their parents were registered⁶. Now it is not the case, the fee is gone up and children are required to pay a processing fee. Imagine someone with ten children, it is impossible to register all of them. This is why you find that in some households, only children and women are registered while the men are not”.

Contrary to the views above, all the three officials of the NHIS interviewed were of the opinion that the premiums are affordable to households and those who cannot afford (i.e., Indigents) are granted an exemption. One of them had this to say about the costs of premiums:

“We charge new registrants [who are adults] only GHS24.00, GHS22.00 for renewal, GHS5.00 registration fee for children and GHS2.00 for renewal. The premiums charged in this district are the lowest in the country. They are also low compared to what users pay out-of-pocket for treatment in the absence of a national health insurance cover.”

Surprisingly, however, a few rural residents agreed with the view expressed by the officials. They expounded that prior to the introduction of the NHIS, they paid more money out-of-

⁵ The Ghana Living Standards Survey's (GLSS) round of surveys observed that poverty is not only disproportionately a rural phenomenon but is also found to be highest among rural crop farming households (GSS, 2015).

⁶ 1 US Dollar = GHS5.50

pocket for treatment in health facilities. A resident of Tuggo stated in relation to the cost of premiums that:

“The premiums are not really expensive as people say they are. We used to pay more during the cash-and-carry days. The only problem is that most of us have many children, and for that reason, we need to plan and save money towards NHIS payments.”

5.1.2 Perspective of urban residents

Contrary to opinions expressed by rural residents on the cost of NHIS contributions, 11 out of the 12 interview participants sampled from Jirapa township for the study expressed satisfaction with the enrolment and renewal levies. For example, a female teacher resident in Jirapa said this in relation to the cost of enrolling and renewing membership of the NHIS:

“an insignificant amount of money is deducted from my social security contribution every month, and I pay just a little amount of money annually to renew my membership of the scheme.”

Her opinion was shared by another Jirapa resident who works in a beer distribution company. He said:

“The fees are affordable and ever since I enrolled in the scheme in 2006, I have always renewed my membership. My wife and children are all enrolled and we have always renewed our membership without having to borrow money from anyone.”

However, one Jirapa resident who participated in the study expressed dissatisfaction with the rates charged for enrolling in the NHIS. She and her household rely on small scale *pito* brewing (local beer) as a source of livelihood. Payment of NHIS contribution has always proved to be a challenge for the household during the rainy season when returns from the *pito* business are very slow. This was her response regarding the cost of NHIS contributions:

“Honestly, we are able to afford renewal fees for household members during the dry season when our pito business generates enough income. However, we always struggle to renew the membership cards of four of our household members whose membership cards are due for renewal every April.”

Although these opinions do not represent the views of all urban residents in the municipality, they reflect a relationship that connects locality, sources and flow of income of households and ability to pay NHIS membership contributions. Whereas the urban residents tended to have a regular flow of income the reverse was found in rural areas; a situation that might vary enrolment among residents in these localities.

⁷ The seasonality of the incomes of farmers means that collection of premiums needs to be scheduled to coincide with a period when farmers are harvesting and selling farm produce. This would make it possible for many informal sector workers to pay the premiums on time and be entitled to free medical care. The seasonality of crop farming accounts for the high rate of poverty among crop farmers in rural areas (GSS, 2007).

5.2 Rigidity of payment of contributions

5.2.1 Perspective of rural residents

The lack of flexibility of payment arrangements emerged as a challenge faced by rural residents, most of whom rely on seasonal subsistence farming for income. Except for the three officials of the scheme who participated in the study, there was a consensus among users, providers, and agents that the timing of collection of contributions from people in the informal sector, particularly rural farming households was most inconvenient. Interview interactions with rural residents revealed their preference for premiums to be collected between October and December when they are able to generate funds from the sale of their farm produce. This preference is influenced by the seasonal nature of their main livelihood activities⁷. Thus, the best time to collect contributions is when the residents are harvesting farm produce and may have surplus to sell to raise funds to pay premiums. A subsistence crop farmer in Tuggo, a rural community in the municipality, decried that:

“It is not possible for us to keep some money from the sale of farm produce and pay for health insurance any time of the year. The best time is when we harvest our produce. If we knew when he (NHIS agent) would be coming, we would go to the village market, sell some grains and put the money aside. Unfortunately, he [NHIS agent] comes around unannounced, but also at a time when we are not prepared financially.”

A previously enrolled scheme beneficiary from Kul-Ora⁸ suggested that in addition to scheduling the timing for collection of contributions, the NHIS should consider spreading the contributions over a reasonable period within a year instead of the current one-off annual payment system. He observed that:

“The current payment arrangement is rigid and unfavourable to most of us who have large families. We cannot afford to pay the premiums for eight people at once. The best way is for the scheme to be flexible to spread payment over the whole year for households that genuinely cannot afford the one-off payment due to large numbers.”

Community agents, whose tasks include registering new members and renewing members' subscriptions, conceded that enrolment and renewal figures were very low between January and September. This is the pre-cropping and cropping seasons when farming households do not have enough produce in stock to sell and raise funds for health insurance contributions. An opinion that reflects the difficulty mentioned above was expressed by an NHIS agent for Douri⁹. When asked about the appropriateness of the timing of collection of contributions, he explained:

“Most rural households are struggling to raise funds to pay for health insurance. Since I started this work

⁸ Kol-Ora is a rural community located south-west of Jirapa.

⁹ Douri is a rural community located west of Jirapa, the capital of the municipality.

many years ago (since 2010), the period I get clients to subscribe is October and December. Aside from this period, the group of people who subscribe any time of the year are the exempt group (pregnant women, indigents and aged)."

However, officials of the NHIA disagreed with these views when asked about the appropriateness of the timing for collection of premiums. They insisted that there was nothing wrong with the timing of collection of premiums and that subscribers ought to learn to put money aside for the payment of NHIS premiums. A senior official at the Upper West Regional secretariat asserted regarding the timing of collection of premiums that:

"There is nothing wrong with the timing. In fact, most of these men who are complaining about poor timing spend money on other things every day. They drink alcohol and eat meat, buy cigarettes, spend so much moving from one funeral venue to another, and yet they cannot afford to pay GHS 23.00 a year for health insurance? Those who genuinely cannot pay (indigents) are exempted from paying the premiums."

5.2.2 Perspective of urban residents

Unlike rural residents, 11 out of the 12 urban participants were satisfied with the timing and mode of collecting the contributions. This results again from regular flow of income from the livelihood activities for participants in urban Jirapa. For example, a vulcanizer had this to say about the convenience of the timing and mode of collecting the contributions:

"Timing of payment of the contribution does not pose a challenge at all. Some members of my household failed to renew on time a few times but that was because they did not remember to do it. It was not because of inappropriate timing for collection of fees."

Clearly, the analysis throws up differences in perceptions of participants on the timing of the collection of premiums. For rural residents, the challenge arises from reliance on seasonal crop farming as their main source of income. For participants in Jirapa however, regular flow of their income makes the timing of collection or payment of contributions convenient. An important point to highlight in connection with rigid payment of premiums was that, whereas the NHIS seems to analyse the costs of premiums on an individual basis, the reality is that when it comes to enrolling in the NHIS, the decision is normally a household affair. An important determining factor of enrolment has been the size of the income of the household, and where this was limited, priority was accorded those members with high risks of falling sick (mostly women and children). This explains why adverse selection has become a common strategy employed by poor

households to cope with the burden of health care costs and to avoid catastrophic spending.

6. Discussion

This study explored vertical equity in the NHIS using a qualitative research approach and uncovered evidence of vertical inequity in the distribution of cost and lack of flexibility and adaptability of the timing for premium collections to the needs of the rural dwellers and the policy implications for improving equity in health care through the NHIS. Rural residents do not have access to NHIS services to the extent their urban counterparts do mainly because the membership fees¹⁰ were perceived to be expensive relative to their incomes. Additionally, the mode of paying membership fees was deemed to be unfavourable to a significant number of households who have seasonal subsistence farming as the main source of livelihood.

The discourse on equity of NHIS premiums has been ongoing, with several studies exploring the subject from different perspectives. Using a qualitative exploratory design, this study investigated whether the NHIS is implementing equity measures to ensure that rural residents are treated differently in a way that is seen to commensurate with their relative disadvantage. We found that an important element that has been ignored in the determination of membership fees is the average size of rural households and how this influences the ability to pay. In the Jirapa Municipality (which is largely rural), the average household size is 6.3 persons (GSS, 2014a). Like other schemes in the country, the Jirapa Municipal Health Insurance Scheme charges informal sector contributors who were between 18 and 69 years, an amount of GHS 23.00 for the premium and GHS7.00 as processing fee¹¹. This suggests that the total costs of membership fees per household could be as high as GHS189 per annum. Although a few rural residents surprisingly found these charges to be affordable, a considerable number of seasonal subsistence crop farming households were unable to pay due to fiscal constraints. Evidence of extreme levels of poverty in rural areas is drawn from the Ghana Living Standards Survey Round 7 (GLSS7) report, which reveals that the Upper West Region has the highest incidence of poverty (70.9%) while the Greater Accra Region is the least poor (2.5%). The region's poverty figure (70.9%) also far exceeds the national average of 23.4 percent (GSS, 2018). The report further observed that while poverty is predominantly a rural phenomenon, households with heads who are farmers are not only the poorest, but they contribute the most to the country's poverty. This disproportionate share and widespread nature of poverty in rural areas makes the NHIS practice of charging flat-rate premiums to people outside of the formal sector inequitable. More so, flat-rate contributions contradict Act 852, section 28 of the legal instrument that established the NHIA. The LI states that contributions by populations in the informal sector be graduated according to income levels (NHIA, 2012). The rationale is that the payment of contributions should not result in catastrophic household expenditure. Their inability to enrol in the scheme deprives

¹⁰ In addition to the contributions, members are also required to pay a processing fee or renewal fee for their ID cards, except pregnant women and indigents.

¹¹ NHIS Membership fees:

- 3 months -17 years only pay a processing of GHS 8.00.

- 18 years – 69 years contribute GHS 23.00 as premium and GHS 7.00 for processing.
- 70 years and above GHS 8.00.

SSNIT Contributors (with active cards) pay only a processing of 8.00.

them of access to health care, even though, according to Hjortsberg and Mwikisa (2002), they are more susceptible to illnesses than their urban counterparts. Based on the results of this study and backed by the GLSS7 finding that poverty is disproportionately high in rural areas and among farming households, we argue that rural residents could be suffering a higher burden of the costs of enrolling in the NHIS than their urban counterparts. The flat-rate contributions slapped on those in the informal sector of the economy and the rigidity in the timing of collection of contributions constitute vertical inequity and a failure to implement important design elements of the scheme. The scheme's vertical equity objectives are a deliberate undertaking aimed at extending financial access to health care at a cost that is commensurate with users' income and a recognition of the seasonality of the incomes of poor households. McClelland (1991) observes that the consequences of paying flat-rate contributions on inflexible terms can be catastrophic for poor households. The NHIS has so far not been able to graduate contributions according to income for populations in the informal sector, although it is by law mandated to do so (NHIA, 2012). Some scholars have attributed the Scheme's inaction to the absence of reliable income records for a large proportion of the population that fall outside the formal sector of the economy (Averill & Marriott, 2013; Borghi, 2011). In the Jirapa Municipality where the majority of the population is employed in subsistence agriculture and without reliable records of their income to qualify to contribute based on income, adverse selection and moral hazards were a common means of avoiding catastrophic expenditure. The residents would often enrol or renew the membership of household members who are most likely to fall sick or renew their membership only when they were sick. To achieve equity in enrolment in the NHIS would require a review of the current flat-rate contributions levied on subscribers outside the formal sector. This will make the premiums equitable to enable individuals and households enrol without the risk of catastrophic spending. To this end policymakers and implementers need to sustain their commitment to the ongoing effort by the Ministry of Gender, Children and Social Protection to develop a national household register that will provide reliable information from which membership fees can be determined on the basis of household income.

The burden of inequitable membership contributions for populations in the informal sector of the economy is compounded by rigid payment arrangements. This emerged not just as an enrolment barrier but as a challenge faced more so by rural residents than their urban counterparts. Earlier studies that examined the timing of collection of contributions for socio economic groups came to the conclusion that payment of contribution needs to be scheduled to match with periods when the households have surplus income (Carrin, 2003; Cohen & Sebstad, 2006; De Allegri et al., 2006; Owusu et al., 2012; Wipf et al., 2006). We found in this study that variation in livelihood activities among urban and rural populations creates differences in preferences of the timing of collection of NHIS contributions. The differences in sources of income between populations in these localities call for favourable timing for the payment of contributions in order to minimise lapses and maximise enrolment and renewals. Farming households prefer to pay their contributions between

October and December when they have raised funds from the sale of farm produce. This is consistent with Wipf et al.'s (2006) earlier observation that payment of insurance contributions ought to be timed to coincide with the income streams of users. Contrary to this, the Jirapa Municipal Scheme operates an open registration system for all residents without observing the October–December timeframe for which the majority of the population prefer to pay the membership contributions. While observing the preferred payment schedule for farming household is important given the size of the population of the municipality, for other informal sector workers, flexible payment options such as monthly, quarterly, semi-annual and annual payment options may be preferred by different segments of the population.

Eliminating vertical inequity in the NHIS enrolment would require a two-stage process, starting with a redesign of the scheme's fee payment structure to reflect the categorisation of households articulated in the National Household Register (i.e., extremely poor, poor and non-poor). Once the incomes of households are known, the second step will be a strict implementation of Act 852, section 28 of the LI establishing the NHIA, which requires that premiums for populations in the informal sector be graduated according to income. This is important because the NHIS is mandated to deliver on equity yet the journey towards this objective has mainly been impeded by implementation challenges—absence of reliable households' income records. Fortunately, the solution does not seem far off because the ongoing process to develop a national household register would make the implementation of positive discrimination measures possible. These would include granting exemption from payment of contributions to all those registered as extremely poor (indigents), granting free access to primary health care to those registered as poor, graduating contributions according to the incomes of those in the informal sector and adapting fee payment arrangements to suit those known to be relying on seasonal sources of income. These measures will promote vertical equity in the delivery of services under the NHIS and make health care financially accessible to rural residents, whose livelihood activities are largely informal and seasonal.

7. Conclusion and implications for policy and planning

Based on its findings, this study concludes that the NHIS has not delivered on vertical equity. There is an indication of inequity arising from expensive membership fees and the mode of payment that appears to be unfavourable to a considerable proportion of rural households who rely mainly on seasonal subsistence agriculture for income. The NHIS is charging flat-rate contributions to populations outside the formal sector as a result of the absence of reliable income records that would ensure that payments of fees are commensurate with income. The consequences of this are low enrolment, adverse selection, moral hazards and dropouts, mostly among poor rural populations. The absence of insurance cover means that users will be required to pay out-of-pocket fees at the point of service use, which might be catastrophic or impoverishing for poor households. Users who are unable to pay out-of-pocket fees may delay medical treatment, self-medicate or resort to quack medicine practitioners, all of which are unsafe. To this end, we recommend the adoption of positive discrimination measures

in order to achieve the scheme's objective of ensuring that every Ghanaian resident has financial access to basic health care.

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