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Impact of the National Health Insurance Scheme on Drugstores and Traditional Medicines in Ghana

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Abstract: Ghana established a pro-poor hospital-based National Health Insurance Scheme (NHIS) in 2004. Since the introduction of the scheme, limited research has been undertaken on its impact on Ghana's healthcare options, which consist of traditional medicines, commercial pharmacies (drugstores) and faith healing. This paper draws on an ethnographic study conducted in the Daakye District of Ghana, and argues that although the NHIS has led to increased patronage of hospital-based treatment, the other healthcare options remain popular. Interrelated factors, including poverty, remoteness and cultural perceptions, were found to be drivers of the popularity of the non-hospital healthcare options. This paper seeks to contribute to recent discussions in the Ghanaian media on the government's intention to integrate traditional medicines into Ghana's healthcare delivery system.

Key words: health insurance; Ghana; health-seeking behaviour; traditional medicines; drugstores
JEL codes: H5

1. Introduction

There have been recent reports in the Ghanaian media of the sale of unscientific traditional medicines and expired drugs in commercial pharmaceutical outlets (drugstores), particularly in rural and remote areas in Ghana. This paper seeks to contribute to discussion on the role of drugstores in the Ghanaian healthcare economy and traditional medicinal practice in Ghana vis-à-vis the government's intention to integrate such practice into Ghana's healthcare delivery system, following consistent advocacy by the Ghana National Association of Traditional Healers to include herbal medicine in the National Health Insurance Scheme (NHIS; see Abbey, 2017; Ghana Business News, 2017; Ghana News Agency, 2010; NewsGhana, 2015).

This research was conducted in Daakye, a district in the Central Region of Ghana,[1] to establish the impact of the NHIS on traditional medicines and drugstores and the inherent dynamics of the Ghanaian healthcare economy. Over 90% of the Daakye people live in rural settings, and around one-third reside on over 200 islands accessible only by boat. At the time of data collection, 150,000 people lived in the district, and almost 8,000 lived in Daakyekrom, the district's capital. Only 10% of the entire road network in the district was tarred with coal (Daakyekrom Development Organisation Annual Reports 2006-2009).[2] The main languages spoken were Tali and

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[1] The research location and participant have been deidentified.
[2] Name of the organisation has been deidentified.

Buru, with local ethnic groups comprised of Tali (48.0%), Buru (27.5%), Northerners (22.3%) and others (2.2%). Most people in the district identified as Christian, with 30% officially reporting as Muslim.

At the time of data collection, the Daakye District was very poor, and hence only one referral hospital (Daakyekrom Mission Hospital [DMH]), three clinics and 13 Community Health Promotion Services (CHPS). Most of the island settlements had no clinics or CHPS. Malaria, hernia, respiratory tract infections and typhoid fever were the prevalent diseases in the district (Daakye District Development Organisation Annual Reports 2006-2009).

Ghana introduced a pro-poor NHIS in 2004. Before the NHIS implementation, Ghanaians paid for their medical services out-of-pocket — a system known as "cash and carry". This situation presented several challenges to the poor, who could not afford to pay medical costs (Arhinful, 2003; Asenso-Okyere et al., 1997). The Government of Ghana's main objective in introducing the NHIS was to provide Ghanaians with equitable, universal and essential healthcare access (Agyepong & Adjei, 2008). Ghana's NHIS was established under the *National Health Insurance Act 2003* (Act 650). In 2012, Act 650 was replaced with Act 852, which made it mandatory for all Ghanaians to enrol in the NHIS.

The NHIS is an indemnity policy — members pay a fixed amount for a particular illness. For each disease, the policy reimburses an amount equal to the cost of treatment (Adusei-Asante & Doh, 2016). Formal sector workers, Social Security and National Insurance Trust contributors, pensioners, indigents and those aged below 18[3] or above 70 years (the exempt group) do not pay premiums; instead, they pay varying sums as administrative costs to their respective local mutual health insurance schemes. The benefits package includes primary care and hospital care (outpatient and inpatient care, oral health services, eye care services, maternity care and all emergencies). The NHIS covers 95% of all diseases in Ghana, ensuring that the top 10, which make up 80% of the disease burden, are covered. There is no ceiling on how often a client can visit the health facilities (Blanchet et al., 2012; Sekyi & Domanban, 2012).[4]

Since its introduction, there has been little discussion on the impact of the NHIS on the economics of healthcare options in Ghana. Previous studies have focused on feasibility (Arhinful, 2003; Asenso-Okyere, 1995; Osei-Akoto, 2004), challenges (Boateng, 2008), relationships among stakeholders (Yeboah, 2008), development and implementation processes (Agyepong & Adjei, 2007) and the hidden complexities of promoting the NHIS (Kotoh, 2013). While recent studies have discussed the impact of the NHIS on healthcare utilisation in Ghana (Blanchet et al., 2012; Sekyi & Domanban, 2012), these have tended to be restricted to hospital-based services (HBS), rather than including traditional medicine and drugstores. A focus on the state of these traditional healthcare options in the context of a free NHIS is critical for Ghana's public health policy development and regulation, particularly in rural localities where poverty, remoteness and cultural perceptions affect access to the hospital-based NHIS.

2. Ghana's Healthcare System

Ghana has a pluralistic healthcare system, comprising traditional medicines, HBS, commercial pharmacies (drugstores) and faith healing. Before hospital-based "modern" medical practice was introduced in Ghana in the

[3] The legislative instrument stated that for a child or a minor under 18 years to be registered, at least one of his/her parents must join the NHIS.

[4] A gatekeeper system ensures that patients access healthcare offered mainly by the primary health centres (district hospitals, polyclinic health centres, clinics, maternity homes, CHPS, pharmacies, and regional and tertiary health facilities).

19th century, most Ghanaians relied on plant and herbal medicines (Twumasi, 1975). The World Health Organization (WHO, 2003) defines traditional medicine as "health practices, approaches, knowledge and beliefs incorporating plants, animal and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singular or in combination to treat, diagnose and prevent illness or maintain wellbeing" (p. 1). Although traditional medicine has historically been met with scepticism (Arhinful, 2003; Twumasi, 1975), and this has continued in recent times (Mantey, 2010; Nyika, 2007), it continues to receive worldwide recognition (Essegbey, 2015; Tangwa, 2007; WHO, 2003). Up to 80% of the African population uses traditional medicine for primary healthcare (Ramsay, 2002; WHO, 2003).

Traditional medicine is an important industry in Ghana, embedded in cultural practices (Arhinful, 2003; Senah, 1997; Tsey, 1997). In rural locations, fee-for-service for traditional medicine is not the norm; sometimes, fowl, sheep and eggs collected for rituals are offered as modes of payment (Asenso-Okyere, 1995). According to Mantey (2010), over half of Ghanaian children with malaria are first treated with herbs. The importance of traditional medicine in Ghana has been recognised by the establishment of the Mampong Centre for Scientific Research into Plant Medicine in 1975 (to codify production and use), the founding of the Traditional and Alternative Medicine Directorate in 1991 (to coordinate practices), the enactment of the *Traditional Medicine Practice Act 2000* (to register all traditional medical practitioners in Ghana), the awarding of university degrees in traditional medicine at the Kwame Nkrumah University of Science and Technology and the development of a national policy on traditional medicine (Ministry of Health, 2005).

Knowledge of traditional medicines is learned informally from a close family member, through formal apprenticeship under an established practitioner or via a spiritual calling (Tsey, 1997). According to Bierlich (1994), traditional medicine practitioners consider herbs powerless in themselves; external sources, such as ancestors or other spirits, give the herbs the potential to either heal or harm. In most Ghanaian rural societies, sickness is considered a result of a sin or a curse, and traditional medicines and procedures are regarded as offering better protection and healing than "modern medicine" (Arhinful, 2003, p. 135; Essegbey, 2015; Mantey, 2010). Traditional healers approach healing holistically, considering the patient's position in the family and the communities of the living and the dead to detect the cause of illness (Mantey, 2010; Twumasi, 1975) and to prescribe the appropriate treatment (Nyika, 2007; Osei-Akoto, 2004).

Currently, outlets for HBS in Ghana include hospitals, clinics, polyclinics and CHPS operated by the Ghana Health Services (GHS), religious organisations and private practitioners. Although biomedicine has brought about remarkable improvements in health, some Ghanaians do not trust it to cure all sicknesses (Barimah & Teijlingen, 2008; Kim, 2005). Arhinful (2003) connected this attitude to culture, but Tsey (1997) argued that it is because HBS are unable to deal effectively with certain diseases that have psychological dimensions. Twumasi (1975) held that HBS, as introduced to Ghanaians, do not take into account psychological aspects of illness, which is why traditional herbalists, with their application of psychotherapies in therapeutic processes, are better received in rural Africa (Mantey, 2010; Nyika, 2007).

Commercial pharmaceutical outlets (drugstores) play an important role in Ghana's medical market. Drugstores sell various kinds of medicines, ranging from pain relievers to contraceptives and aphrodisiacs. "Herbal medicine", as used in this paper, refers to both codified and unapproved processing and use of traditional drugs. Drugstores are the main option for those who live in villages, where no facilities offering HBS exist, and for those who cannot afford out-of-pocket medical bills associated with HBS. In contrast to other countries, in which managers of drugstores are trained pharmacists, it is not uncommon in Ghana to find people with little or

no pharmaceutical training prescribing and selling drugs, an issue that continues to generate public debate.

While Ghana has made progress in codifying the use of traditional or herbal medicines, rural people administer these remedies in ways that may seem contrary to international standards, including without dosage advice or expiry dates. Senah (1997) argued that drugstore operation in Ghana thrives on mutual trust between operators and their clients. Not only do some clients procure drugs on credit, they trust the diagnostic and prescriptive judgement of the operator. However, there have been concerns that drugstores indirectly promote self-medication, and it is argued that stricter measures need to be imposed by the National Standards Board in consultation with the Ghana Pharmaceutical Council to expose unqualified pharmacists (Asuamah et al., 2013; Baidoo, 2009; Ofori-Kwakye et al., 2008; Osei-Akoto, 2004).

Another medical option in Ghana is faith healing. Within the contexts of Christianity and Islam, the two most followed religions in Ghana, faith healing involves the invocation of the divine to heal a medical condition believed to have been caused by spiritual forces (the devil) (Gifford, 2004). Faith healing may take many forms, including prayer and fasting, citation and meditation on scriptures, or use of anointing oil, prayer cloths and soaps. The practice is held in prayer camps, mosques and at healing crusades and seminars. The impacts of the NHIS on faith healing are discussed elsewhere (Adusei-Asante, 2017).

3. Health-Seeking Behaviour

Patronage of the various healthcare options can be explained through theories on health-seeking behaviours. Factors influencing these behaviours are interrelated, and include socio-cultural and economic factors, distance, trust and local perceptions of sickness (Kian, 2001; Kroeger, 1983; Prosser, 2007; Shaikh, 2007; Ukwaja et al., 2013). Socio-cultural factors relate to demographics and dynamics (such as gender, education and patterns of social responsibility), and how these influence the wellbeing of local inhabitants (Kian, 2001). Kian (2001) and Kroeger (1983) observed that cultural beliefs, which limit the social mobility of rural women in developing countries, require women to defer to men regarding when, where and how to seek healthcare for themselves and their dependents. Bour (2004) argued that even though Ghanaian women generally accessed healthcare more frequently than men, they did not necessarily have power in healthcare decision-making. Thus, while a woman may prefer HBS to cure a particular sickness, taking this option depends on consent from her “head of household” (such as an elderly brother, uncle or husband), who is often responsible for paying for the healthcare (Adusei-Asante & Georgiou, 2017). Senah (2003) found that the people of Botianor viewed HBS as the last resort, and often provided “gendered” explanations for their opinions. For example, if men fell sick, their friends often teased them, calling them “women” or “children” in a derogatory manner. Consequently, when ill, most men relied on drugstores, fought their symptoms and/or feigned being healthy to avoid being tagged “weak”. Additionally, Osei-Akoto (2004) found a correlation between educational attainment and health-seeking decisions, arguing that the more educated the person, the more likely they are to choose hospital treatment over traditional medicine (see also Muhammad et al., 2007; Mulder et al., 2008; Renzaho et al., 2007; Tabi et al., 2006).

Financial status and distance to healthcare centres are also key determinants of healthcare access. Healthcare involves out-of-pocket payments for consultations and drugs, which the poor cannot afford. As part of their feasibility studies on Ghana’s NHIS, Arhinful (2003) and Asenso-Okyere (1995) found poverty to be a hindrance for many who were willing to join. The authors argued that while the NHIS was believed to remove financial status as a barrier to healthcare access, lack of funds for registration was problematic for some, and recommended

that attempts be made to support these people to join the NHIS. In terms of distance, the nature and availability of transportation to health facilities were critical determinants of health-seeking behaviours. Various studies (Bour, 2002, 2004; Kroeger, 1983; Prosser, 2007) revealed that the distance between people's homes and the health facilities had an impact on decisions and willingness to use HBS. Wilson et al. (1997) carried out a survey on maternity homes in an urban area of Ghana, concluding that distance was the most important factor influencing the use of maternity services. Osei-Akoto (2004) also observed that distance affected healthcare decisions, noting that 75% of those living in Nkoranza and approximately 50% of those in West Gonja, all more than 10 kilometres from the NHIS hospital, sought help from traditional healers, with 89% and 73% (respectively) resorting to drugstore use.

The attitudes of healthcare professionals towards patients and patient satisfaction levels have also been found to be determinants of health-seeking behaviours. Boafo (2016) noted that patients regarded health professionals as 'agents of trust', and were unlikely to seek treatment by particular health professionals, or receive care services at certain health facilities, if they had felt abused or mistreated on their previous visit. Several studies have concluded that some patients avoid HBS because of the perceived abuse meted out by health professionals or delays at the facility (Muhammad et al., 2007; Schneider, 2005; Senah, 2003; Ukwaja et al., 2013). Gilson (2003) confirmed that at the heart of healthcare is patient and provider interaction. Thus, effective service delivery requires not only the supply of care by providers but the acceptance of such service by individual patients.

Meyer (1995) observed that local and cultural perceptions influence choices in accessing healthcare; for example, in Peki in the Volta Region of Ghana, the violation of accepted (societal) laws, such as two blood relations having sexual intercourse, was regarded as an abomination or "gu". For the local people, "gu" defiled families and resulted in violators falling ill. Meyer (1995) found that while supposedly "gu-related" illnesses were theoretically often treatable at hospitals, families generally called on local traditional priests to perform purification rituals to remove "gu" from affected relatives. Similarly, Awusabo-Asare and Anarfi (1997) argued that in most Ghanaian rural societies, diseases whose aetiology could not be readily explained were often given supernatural explanations. Senah (2003) found similar belief systems when he researched the Botianor in the Greater Accra Region of Ghana.

4. Methods

An ethnographic study was conducted over a three-month period. Participant observation, interviews and a desktop review of reports and questionnaires were the main research instruments. The names used in this paper are pseudonyms, to protect the identity of the research localities and participants. Observations were carried out at the DMH, drugstores and traditional medicine purveyors. The purpose of the participant observation was to obtain local knowledge of the general conditions and facilities, outpatient activities and treatment procedures (Liamputtong, 2009). Annual reports of the DMH and two non-governmental organisations (NGOs) working in the district were also obtained, to establish the context of the study and inform the design of the research instruments.

Thirty formal and informal interviews were conducted. Formal interviews were conducted with DMH medical professionals, drugstore managers and traditional medicine practitioners. The interview questions focused on the health situation in the Daakye District before and after the introduction of the NHIS and how the policy had affected their work. Apart from the Reda Islands, where a translator was used, most of the interviews were conducted in the Buru language. Key stakeholders, such as the directors of two NGOs and district directors of the

GHS and the NHIS, were also engaged in formal interviews. Individuals on the Reda Islands, as well as those on the streets and in the homes and the workplaces of Daakyekrom, were informally engaged in the study, and asked why and how they used the NHIS and if they still patronised traditional medicine practitioners and drugstores.

Forty questionnaires targeted those not included in the interviews. The questionnaires were administered at the NHIS head office in Daakyekrom, to people either renewing their membership or joining the NHIS. The open-ended questionnaires solicited information on when and why they had joined the scheme, the benefits derived so far and if they intended to frequent, or had ever frequented, drugstores or used traditional medicine. The data were manually transcribed and thematically coded to facilitate analysis.

5. NHIS and Traditional Medicines

Empirical data collected through the 2009 ethnographic study showed that despite the introduction of the NHIS, herbal medicines were still employed in Daakyekrom. Four different, yet overlapping, levels of herbal medical practice were identified in the Daakye District. The first comprised people who used traditional medicines only on themselves and their immediate families. Family members or friends had passed the knowledge of herbal medicines from generation to generation among these respondents, through conscious tutoring or recommendation. Respondents in this category included adults who had basic knowledge, and could describe the processes for curing illnesses such as head and stomach-aches with the neem tree, applied together with other herbs and salt.

Scientifically processed herbal drugs, mainly available in drugstores, provided another level of herbal medicine practice in the Daakye District. Often advertised on the radio, these drugs were properly packaged and indicated dosage, manufacturing and expiry details. Herbal medicines sold by trekking and hawking practitioners comprised the third category. The trekking practitioners travelled slowly in cars equipped with public address systems, which advertised the drugs repeatedly. If people were interested, the vendors stopped the car and sold the drugs. They were usually from Kumasi and spoke Asante-Twi; some had visited the Daakye District since 2004. Within this category were also individual hawkers carrying herbal medicines in bags or on their heads. Some of the hawkers had megaphones, while others simply used their voice to market their products in public areas. The medicines were wrapped in used newspapers or bottles with no or little inscription regarding the drugs; nevertheless, they claimed to cure many illnesses. Owing to distance and lack of medical facilities, islanders in the Daakye District seemed to most often use the services of the trekking and hawking practitioners.

Residential herbal practitioners — professional herbalists who practice from their homes — formed the last category. This group is the main focus of the research, and two, Agya Kumi (78) and Alhazi Abdul (65), were observed and interviewed. They had much in common. Both had learned the vocation from their grandparents and through spiritual revelations. They were both licensed to operate, and treated boils and other illnesses, charging between GH¢10 and GH¢30, although they also accepted in-kind payments. While both practitioners joined the NHIS in 2004, they claimed never to have been to hospital. They were both married with children. Each had reserved rooms in their homes where their clients received treatment, some for a period of over three months. Both practitioners prayed or chanted incantations before giving the herbal drugs to their clients to drink or rub on the affected parts of their bodies. The curative substances they used were described merely as herbal preparations, with no dosage advice or expiry details available. When asked, both practitioners claimed that they had saved hundreds of people in their several decades of practice, and hence dosage and expiry issues were irrelevant.

Three categories of NHIS holders who used herbal medicine were delineated. The first comprised those who had been to the hospital several times, but their sicknesses had not been cured or they had been referred to another hospital in the region. Some participants in this group seemed to have mistaken medical referral for the hospital's inability to deal with their case. Such patients read spiritual connotations into their sicknesses. The second group comprised those who used herbal preparations alongside biomedicines prescribed by medical doctors at the DMH or drugstore operators. Such users described this mix as "*abrofo deé kakra, efie nso deé kakra*" (a little of scientific medicine and a little of the traditional one). They did not doubt the potency of biomedicine, but used both to speed up their recovery.

Pregnant women who needed protection against a condition called 'asram', and new mothers who suspected their babies had contracted it, formed the last category. Asram, a fatal sickness that caused infants' heads to swell, was believed to affect infants and pregnant women when they had contact with a person with an evil spirit. An affected infant or pregnant mother was required to spend at least two weeks under intensive care at a residential herbal centre to be cured. While some pregnant women and new mothers visited the DMH for antenatal and postnatal care, they also used traditional herbs to immunise themselves against asram. On this basis, and the belief that the issues they dealt with could not be treated via HBS, both Agya Kumi and Alhazi Abdul claimed that the NHIS would not remove the need for their work.

6. NHIS and Drugstores

Owing to distance, lack of transportation and financial resources, drugstores were found to be somewhat popular in the Daakye District, although the introduction of the free NHIS had reduced patronage. At the time of the fieldwork, there were only seven drugstores in Daakyekrom, which the local people categorised by their size and stock level. Most people patronised the well-stocked drugstores, partly because of the variety available. Malaria drugs and pain relievers, such as "paracetamol" and "ehpack", were the most sought after. Most big drugstores had employees, usually family members of the managers, who prescribed drugs. All the drugstore managers I interacted with were accredited.

The patronage of drugstores in Daakyekrom depended on the operators' networks and experience. Observation suggested that the Tali and the Buru patronised two particular drugstores managed by managers from their respective ethnic groups. Surviving in the business required drugstore managers in the Daakye District to build networks to retain customer loyalty — the larger and more diverse the network the better. Network building involved the generosity of drugstore managers and their customer relations. Among other factors, acts considered to foster positive customer relations included allowing clients to buy drugs on credit and attending clients' birthdays and funerals, contributing the relevant dues at these events.

Most customers who entered the drugstores seemed to be personally acquainted with the operators. Those who lived in remote regions and islands tended to buy in bulk. The islanders usually requested "*tsaka tsake*", literally translated as "mixed" or "assorted". I asked one client, who had joined the NHIS, what *tsaka tsake* meant, to which he replied:

> Are you a stranger in the Daakye District? This should not surprise you at all. That is how we do it here. I bought one for my family and the other two for some relatives who could not make it to the market day. I have the NHIS but there is no clinic in our place, in an emergency, these [drugs] are our saviour…Placing an order for another *tsaka tsake* depends on how quickly the current one is used, the availability of money and transportation to Daakyekrom.

Five types of users of drugstores were identified. The first group comprised those who were not sick necessarily, but owing to transportation difficulties and distance, bought the drugs in bulk for themselves, fellow villagers or islanders. They required the drugs as first aid in case of small illnesses or emergencies. The second category was a subgroup of this category, comprised of islanders who bought the drugs in bulk as retailers, and sold it to their fellow island dwellers as a business. Members of this category had no pharmaceutical training. The third category of drugstore users included those who had visited the DMH and had been prescribed drugs that the hospital did not have in stock in its in-house pharmaceutical outlet. The fourth group comprised those who needed drugs that, at the time, were not ordinarily sold to outpatients at the DMH, mainly consisting of contraceptives and aphrodisiacs.

The last group of drugstore users in the Daakye District consisted of people who purchased the drugs for illnesses and pains considered mild, including malaria and waist pains. Significantly, although some in this category had joined the NHIS, they seemed to be unhappy with how they had been treated at the DMH when they visited with an illness considered mild, and had resolved not go to the hospital unless the situation worsened. Diseases that the drugstores handled before the introduction of the NHIS, such as malaria and bodily pains, had not changed, but the numbers had decreased because most NHIS holders visited the hospital after particular sicknesses became chronic.

The impact of the NHIS on the drugstores invariably depended on their size and networks. Smaller stores were concerned, and considering shifting to other businesses. I interviewed a 22-year-old woman whose parents had managed a small-scale drugstore for almost 10 years in Daakyekrom. She had been helping her parents with the business since she was 17. She had completed and passed her secondary school exams but was not considering tertiary education because their drugstore business was collapsing because of the NHIS. My interview with her ensued as follows:

> Researcher: How is the business doing?
> Yaa: Well, since you came, how many clients have you seen? [No one and I had been there for 15 minutes.] That should tell you that we are on the verge of collapsing. We only manage some sales on market days. At first, the business was good but it's bad nowadays.
> K: Why is the business going down?
> R: In the past, the villagers and the islanders used to come in numbers to buy the drugs. Some also used it as their business and sold the drugs to those who needed them in their respective localities. Now they do not come because of the NHIS and the fact that those localities have clinics or CHPS. We survive only on a few sales of pain relievers and condoms.
> R: How has the NHIS affected your business?
> Y: Well, if people can pay GH¢14 for the whole year and get treated for malaria and surgeries free of charge, what do you think we have become to them? [I do not respond.] Irrelevant! What is worsening our case is the new clinics/CHPS they are building in some of our market catchment areas.
> R: Do you pray that the NHIS fails so you have your business back?
> Y: No, I think it is helping more than the harm it is causing us.
> R: But I see some drugstores are busy and making it here?
> Y: Business in Daakye District depends on ethnic identities. Some of those drugstores are doing well because their tribesmen buy from them. We are Buru and our people don't live here in great numbers.

This excerpt shows that the NHIS has affected small drugstores. Managers of other small drugstores in Daakyekrom shared similar frustrations.

Mr Opare operated one of the bigger drugstores in Daakyekrom. He had a post-secondary school educational background and was married with three children. He had been working in the same business for 17 years in the Daakye District. His entire family and 10 others he helped had joined the NHIS. Mr Opare explained that before the NHIS, he used to handle many malaria and bodily pain cases, but that numbers had drastically reduced. He indicated that he used to record over 200 clients on market days, but this had dropped to 100, or at most 150. I asked him what was keeping him in business:

> The Roman Catholic Church buys drugs from me in bulk for those on the islands. People also buy the drugs in bulk for the remote lands. More so, when the DMH runs out of drugs, we sell to them and their clients. The attitudes of people in the Daakye District are another consideration. Sometimes, they come to us with some sicknesses they feel they just need paracetamol to deal with. Somehow, if you direct them to the hospital, they will first want to try what we give them. Lastly, I have developed my own networks and sometimes give the drugs on credit. It is better to be owed than to have the drugs piled up here and expire. Other operators may not do that.

Another issue he raised was that residents of Daakye District hear about drugs on the radio and enquire about them, sometimes at variance with the cure being sought. He added that in most cases, they advised of this, but cautiously, so that they did not lose customers. I asked him about the future of his business in light of the NHIS. He answered with a proverb:

> When a hunter is targeting an animal to kill, the animal looks for the next place of refuge. I am aware that in future, our business may become irrelevant if more people join the NHIS and more clinics are built, closer to the islanders especially, who are my main partners in this business, so we are planning but we don't know yet. Malaria drugs, which used to be the anchor of my business, are gradually going down because the NHIS treats malaria for free. Paracetamol and contraceptives are the mainstay of my business now. But I know that for at least the next 20 years, I will still be in business because of my networks and the fact that Daakye District won't become like Accra [the capital town of Ghana] overnight.

A woman who operated another big drugstore in Daakyekrom with her husband expressed similar sentiments:

> We won't stop this business, even if everyone joins the NHIS in the Daakye District and every hamlet or town gets a health facility. Do you know why? What influences health-seeking behaviours in the Daakye District is complex. For many years to come, these complexities will still be with us and give us significance.

Operators like Mr Opare were aware of the impact of the NHIS on their businesses, and built networks to counter this. Even though Mr Opare claimed his business was affected, it appeared busy. He and all six employees were always busy, especially on market days, from 8 am to 10 pm when they closed. As he noted, the size of the area and his store, as well as the general conditions in the Daakye District, gave him hope that he would still be in business in years to come, despite the introduction of the NHIS.

7. Conclusion

This paper set out to show the impact of Ghana's NHIS on traditional medicines and drugstores. Intuitively, it was expected that the NHIS would significantly reduce the patronage of non-hospital-based healthcare options. This was not found to be the case in the Daakye District. Drugstores were the first point of contact for most NHIS holders among the research participants. If the sickness was an emergency, the drugstores were used as first aid for the islanders where no health facilities existed. The hospitals became the first point of contact in extreme

emergency cases, mostly among those who had access to health facilities. Traditional medicines were used alongside "scientific medicines". When patients recovered and subsequently fell ill again, the pattern was repeated. Thus, although the NHIS has made hospital-based services relatively affordable, it was not always the first medical option. People used it in varying modes, based on factors such as poverty, distance and local perceptions of sickness, which accounted for people's preferences and use of the healthcare options.

The paper has two policy implications. First, while it would be difficult to change some of the socio-economic factors that influence health-seeking behaviour in rural Ghana, continuous public health education could improve the situation. Continuous monitoring of licensed drugstore operators and traditional herbal practitioners in rural localities is also critical, as some practices in the locality researched appeared to breach national standards. Second, the state must accept the reality of the division of labour and competition in the healthcare economy between hospitals, drugstores and traditional medicines. In this regard, integration of accredited traditional medicines into current hospital-based services will be a step in the right direction.

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