Client power and access to Quality Health care:
An assessment of Ghana's health insurance scheme

Isaac Osei-Akoto*
Ama Pokuaa Fenny
Clement Adamba
Dela Tsikata

Institute of Statistical, Social and Economic Research (ISSER)
University of Ghana

*** Contact Information:**
Isaac Osei-Akoto
ISSER, University of Ghana
Email: ioseiak@ug.edu.gh/iokwame@yahoo.co.uk

**** The paper is one of the products from the AERC Project on Institutions and Service Delivery**

Abstract
Ghana's health service delivery is bedevilled by inadequate institutions and lack of accountability. One of the reasons for the introduction of the National Health Insurance Scheme (NHIS) in Ghana is to facilitate citizen participation and ownership of the health service delivery system. Yet, this aspect of the scheme has often been overlooked. Employing the governance/accountability framework in a mixed method design, we examine how the NHIS and its related institutions perform the role of a public watch over frontline providers to ensure access to quality services. Three of the main findings are that: there is improvement in the purchasing power of clients (policyholders use card as a purchasing voucher to seek health care); competition among frontline providers generated by the National Health Insurance Authority's accreditation procedures ensures institutionalisation of quality services for clients; related institutions under the scheme, educate and mobilise the people and build up communal power which ensures that communities act in unison to demand quality services. The end lesson is that creating institutional spaces for direct participation of users and citizens in general is a robust means of concurrently empowering citizens and providing an avenue by which providers may be sanctioned, thus making them more responsive to users.

Keywords: Ghana, Health insurance, Client power, Voice, Cost containment, Accountability framework, Scientific Health Insurance Evaluation, Community Health Insurance Committees

JEL Classifications: H51, I11, I18

1. Introduction

Since 2000, Ghana has made significant efforts to incorporate the Millennium Development Goals (MDGs) into its overall development framework. However, the progress made so far has been mixed. Though considerable steps have been taken towards achieving the poverty-, hunger- and education-related MDGs, attempts to achieve the health-related targets have not been as successful. Even though the HIV/AIDS epidemic has been stabilised to a large extent, there are still new infections reported each year. Furthermore, achieving the MDG targets of reducing child mortality and maternal mortality continues to be a struggle (ISSER, 2008). The main blame-agent identified has been the function (dysfunction) of institutions.

Institutions include, among other things, the means by which, or through which, national governments administer policies that seek to improve citizens' lives (Dewan, 2009). Institutions are particularly important in service delivery as they function to make services available and accessible to the people. If services fail to reach the people then institutions may have failed the people. One of the realisations of the last century was that, in public sector production of health, the link between institutions and service delivery was conspicuously missing. Effectively, policymakers' concern for the citizen only reflected in the transmission of public resources to public service agencies to provide health services (long route). In developing countries, however, too often services fail to reach the people: they are either inaccessible or prohibitively expensive. Even where they are accessible, they are often dysfunctional, extremely low in quality, and unresponsive to the needs of the diverse user.

The growing consensus is that institutions play an important role in correcting these lapses and ultimately enhancing access to quality services. Effective institutions can actually shorten

the long route and ease citizen's access to services. Although contemporary analysis of development emphasizes the central role of institutions, not much work looks at how different institutions actually matter when it comes to improving access to health care delivery. Using quantitative and qualitative design, we carry out an analysis of how Ghana's health insurance system with its dynamic institutions enhances access to health care. Our qualitative analysis specifically explored how institutions under the health insurance scheme enhance clients' access to health care.

The remainder of the paper is structured as follows: Section 2 provides overviews of the Ghana health sector – highlighting the institutional framework for service delivery – and Ghana's National Health Insurance Scheme (NHIS). The third section identifies the key research issues. Section 4 describes the data we used and the methods used to analyse the data. This is followed by an analysis of utilisation of primary health service in Ghana in Section 5. Section 6 presents a discussion of access to quality primary health care. The 7th Section looks at the pathways through which the NHIS enhances client power to increase people's access to quality health care. Finally, Section 8, which concludes the paper, looks at institutional innovations for increased access to health care service.

2.1 The health sector in Ghana and its institutional framework for service delivery

Ghana has initiated various health sector reforms over the past decades aimed at strengthening institutions, improving the overall health system and increasing access to healthcare services by all groups of people. Healthcare financing, one of the key barriers to access to health care in developing countries, has gone through many stages in Ghana; from free healthcare at the eve of independence, to the introduction of nominal fee in the 1970s

and the introduction of cost recovery mechanisms through user fees (traditionally known in Ghana as "cash and carry") in 1985. The 1985 reforms were actually part of a broad strategy to reduce government spending on the health sector and curb the shortages of essential medicines and medical supplies. Eventually, while the financial aims of the reforms were largely achieved, it resulted in inequities in access to basic primary healthcare.

In the early 1990s, Ghana, undertook another round of health sector reform predicated on five key premises: (1) raising the efficiency of service delivery; (2) providing effective interventions; (3) developing linkages with all partners and providers; (4) improving equity of access to health services; and (5) improving the quality of care. Embedded in these is an acknowledgement of the role of institutions in facilitating efficiency, effectiveness, improving linkages, and closing inequities by improving equality and quality of access. A key institutional innovation in these reforms was the decentralisation of the financing, planning and management arrangements of the health sector. Another innovation involved the establishment and delinking of Teaching Hospitals Board from the Ghana Health Service (GHS) which is a necessary step in establishing a more equitable, efficient, accessible and responsive health care system.

The GHS remains responsible for the implementation of government's health policy and regulation of state run health institutions - Government Hospitals (GHSP), Poly Clinics (PC), and Health Centres (HC). Institutions which do not fall under the jurisdiction of GHS then included the teaching hospitals, and other hospitals, health stations, centres or clinics run by the security services, religious bodies or other charitable institutions, companies, statutory corporations, and other private organizations or individuals or groups of individuals. For the

purposes of administration, teaching hospitals are governed by the Teaching Hospital Board [Article 34(1)]. The Teaching Hospitals (THs) are therefore autonomous from the GHS.

There is also a strong recognition of the important role of the private sector (private religious and private non-religious health institutions) in the health service delivery configuration in Ghana. The private sector is regulated by a Private Hospitals and Maternity Homes Board (PHMHB), established by Act 1958 (No. 9). Under the PHMHB come Mission-Based Providers (MBP) and Private Medical and Dental Practitioners (PMDP). Essentially, supervision of mission-based health facilities comes under a separate agency referred to as the Christian Health Association of Ghana (CHAG) and the relationship with the GHS stands as purely collaborative (Osei-Akoto et al. 2011).

Even though some improvements have been gained as a result of these institutional reforms, as a higher share of health resources are allocated directly to the district level, key difficulties however remained in linking the improved management environment to service delivery and better health outcomes. This thinking led to the introduction of the National Health Insurance Scheme (NHIS), a key health institution that is intended to improve access to quality health care and to reduce inequalities in health care utilisation. This is seen as the most dynamic stage in Ghana's health sector reforms endeavour. The overriding aim of this institutional reform is to remove financial barriers to utilization of healthcare, facilitate citizen participation and ownership of health service delivery and close the inequalities engendered by the cash and carry system.

2.2 Brief background on Ghana's National Health Insurance Scheme (NHIS)

The National Health Insurance Act, 2003 (Act 650) established the National Health Insurance Scheme (NHIS) with the aim of increasing access to healthcare and improving the quality of basic healthcare services for all citizens, especially the poor and vulnerable. The law establishing the scheme allows for the concurrent operation of (public) District Mutual Health Insurance schemes (DMHIS), (private) Mutual Health Insurance schemes and (private) Commercial Health Insurance schemes. The benefit package under the scheme includes inpatient hospital care, outpatient care at primary and secondary levels, and emergency and transfer services. Each DMHIS also uses its discretion to determine additional benefits a scheme should provide.

Institutional structure

The National Health Insurance Authority is governed by a Council which regulates the accreditation of providers, agreeing to contribution rates with the schemes, managing the National Health Insurance Fund and approving cards for membership. The Council is made up of representatives of main stakeholder groups and establishes the formula for allocation of funds to pay for: subsidies to schemes; cost of enrolling the indigent; and supporting access to health care. At the district level, each DMHIS is managed by a Board, which is elected by a General Assembly comprised of Community Health Insurance Committee (CHIC) representatives. CHIC representatives represent geographically determined 'Health Insurance Communities' within each district. The CHIC exists officially to oversee the collection of contributions within its designated Health Insurance Community, to supervise the deposit of these into the District Health Insurance Fund, and to represent community interests in the management structures of the DMHIS. Box 1 below presents the main features of Ghana's NHIS.

The DMHIS is represented in the eyes of the people at the lowest level of the community or NHIS ward by an Agent. The NHIS agent is perhaps the key actor in the NHIS framework, serving as the link between the scheme and those it is intended to benefit. The Agents collect premiums, register and renew clients' membership and distribute NHIS cards. They are also expected to play a primary role in educating people in the community about the scheme and to update the community on new developments as they occur. To create a sense of buy-in into the programme, the scheme has given communities the responsibility of selecting the agents.

Another institutional innovation, albeit on a pilot scale, apart from the CHIC is the introduction of the Scientific Health Insurance Evaluation (SHINE) programme by the Ghana Health Service (GHS) in conjunction with the NHIA. This is a committee comprising all key stakeholders involved in health service delivery in every community. Typically, there are representatives from the GHS (health providers in the community), representatives from the DMHIS, and representatives from the community. The community members on the SHINE are approved by the community itself. The SHINE programme is to facilitate enrolment of people in the NHIS and ensure that clients get health care value for participation.

Box 1: Main features of Ghana NHIS

Funding

▪ National Health Insurance Levy (NHIL) – 2.5% of V.A.T.
▪ Payroll deductions (2.5% of income) for formal sector employees.
▪ Funds voted by Parliament, income from investments, any donations, or loans.

In addition, DHMIS will raise funds from premiums for informal sector members, to be set by agreement with the National Health Insurance Authority (NHIA).

Membership

Membership is mandatory (either via the DHMIS or a private insurance policy). Formal sector workers have involuntary payroll deductions (SSNIT contributions). Those in the informal sector are charged premiums which should be income-related. Initially, there is a six-month gap between joining and being eligible for benefits.

Exemptions

Some groups will be exempt from paying for membership (originally SSNIT pensioners, over-70s, under-18s where both parents are members; indigents). The NHIA will transfer subsidies to cover the cost of their enrolment.

Benefits package

All providers must offer a minimum package, which is specified and broad. National Health Insurance Drug List is established. 95% of all health care is covered.

Eligible providers

All providers are eligible, once accredited. Accreditation is reviewed every five years. Quarterly reports are to be sent to the National Health Insurance Council (NHIC) by providers. Providers are to be paid within four weeks of claim being made to DMHIS.

Organisation

- NHIA established to regulate the market, including accreditation of providers, agreeing contribution rates with schemes, resolving disputes, managing the National Health Insurance Fund (NHIF), and approving cards.
- Each district to have a DMHIS (with a minimum of 2,000 members).
- Benefits to be transferable across district schemes.
- Each DHMIS to submit annual reports to NHIA and to undertake annual audit of accounts.
- Private MHIS not eligible for subsidies from NHIA.

Accountability

- NHIC established to oversee NHIA and license schemes (every two years). Includes representatives of main stakeholder groups, such as Ministry of Health, Ghana Health Services, regulatory bodies, consumers, and Executive Secretary of the NHIA.
- Chair and Executive Secretary appointed by the President.
- NHIC proposes formula for allocation of funds to Parliament for annual approval, and provides annual report to Parliament on its use of funds.
- Each DHMIS governed by a Board.

Source: Modified from Witter and Garshong (2009)

3. Research issues and conceptual framework

What the reforms in the health sector have essentially done is to make negotiations between decentralised health authorities and health care providers considerably more explicit, setting the stage for a clearer development of accountability mechanisms in the form of performance measures (including people's access to health care). Currently, there is a growing amount of concern about the capacity of the NHIS to indeed make quality health care accessible to clients. Health insurance is a health system innovation whose ultimate aim is that health care should be more accessible to people who need it. Whilst several studies have modelled access

to health care with membership of NHIS as a predictive factor, they ignore the institutional capacity of the NHIS to enhance client power in the demand for quality health services. We employ the governance/accountability framework to examine how NHIS institutional actors such as the CHIC, the NHIS agent and the SHINE enhance client power to demand for quality services from frontline providers.

One of the most enduring consensuses in the political economics literature is that governments have responsibility for the welfare of their citizens, and that the most effective way to fulfil this responsibility is through the conjoint production of services with strong and vibrant institutions that ensure accountability. Institutions achieve this by mobilising the people's power and voice to effect changes regarding the quantity and quality of services delivered. But how do institutions effectively do this? Very often the effectiveness of service delivery depends on how well institutional arrangements impact on accountability across the delivery chain.

Theoretically, in cases where services are provided by the state, client-provider accountability relations may be viewed from two angles: (i) the relationship between the citizens-clients and politicians-policymakers (voice); and (ii) the relationship between the politicians-policymakers and the service providers (compact) – both normally weak relationships. The extent to which citizens/clients can influence policymakers, and inherently providers, depends on their level of participation in politics. In that sense, the only way service providers are held accountable is when citizens are able to harness their voice into a political movement that will push politicians/policymakers to act against any inadequacies from service providers. That is often referred to as the long route (World Bank, 2003; see conceptualisation in Figure 2). The short route is whereby citizens-clients can directly exert

their ‘power’ to demand quality service from the service providers. This route is seen as more reliable and is what the study aims to analyse.

In developing countries, one of the most dominant realisations is that the long route has been too long and somehow the state has on a number of occasions failed to deliver on its contract with the people. In other words there have been compact failures. Worsening the situation, people have generally been unable to mobilise their energies (ideas, time, etc.) into “voice” to demand better services. Where there is compact failure, policymakers closely guard information or never create it at all. When less information is generated, citizens are unable to effectively judge how government is mobilising and allocating resources and providing services for their needs. Sometimes citizens may be aware about the quality of services they receive, but they have a difficulty coalescing their ideas and translating that into public power. Policymakers and politicians aware of this “citizen institutional vacuum” adopt selective provision of services as a clientelistic tool to “buy” political support, thus further weakening the people’s voice (voice failures).

Voice failures also occur when the state (controlled by politicians) simply does not care about providing services, or does so in a strictly venal or deliberate manner and citizens are unable to mobilise ideas to demand for their rights. This can be seen in situations where a very small portion of budget expenditure is devoted to health services or is only done to satisfy political interests. A common cause of voice failure is the absence of strong institutions. It has been suggested that some measure of institutional decentralisation will lead to improved efficiency since local managers are held accountable for the consequences of their actions regarding the allocation of resources, and in some cases given incentives to improve their performance (Azfar *et. al.*, 1999). Applying this accountability framework in health service delivery, we

examine how the concept of 'voice'/'client power' from the demand side has been enhanced through the implementation of the NHIS and its management arrangement at the district and community level and how that leads to quality improvement in service delivered by frontline providers.

In our modified framework, client power is conceptualised in terms of the ability to make undeterred choices of health facility type and also the freedom to bypass facilities that do not satisfy needs. Using the institutional arrangements under the NHIS, we then investigate the extent to which client power is enhanced as prospective clients navigate through the health care seeking channels. Response is operationalised as the extent to which frontline service provider organisations (health facilities) show receptivity to the people's power by implementing changes or improvements in their structures and quality of services (health facility institutionalisation).

4. Data and methods

The study utilises a mixed method design, with qualitative discussions used to elaborate on econometric model results. The quantitative analysis uses data from the Ghana Living Standards Survey 5+ (GLSS 5+). The survey is a population based sample representative of 23 districts in six regions across all the three ecological zones in Ghana. The survey covered 9,310 households containing 38,481 individuals. The selection of the enumeration areas (EAs) and the households from these EAs was representative at each level. The survey covered several community and household modules. The health module collected information on health shocks, health insurance status, use of health facilities by individuals who reported ill or injured, and cost incurred. The survey also has extensive modules on community issues and an expanded facility survey, which is linked to the household survey. Geographical

coordinates (GPS measurements) of households and healthcare facilities are provided (allowing patients to be linked to the facilities they used within a reasonable radius).

Qualitative data was also gathered through in-depth interviews in one purposively selected district among the 23 districts in which the GLSS5+ survey was conducted. The interviews were held with opinion leaders, personnel of health service facilities, NHIS policy-holders, and management of the district mutual health insurance scheme in the selected district involving the scheme manager, CHIC members, SHINE members and NHIS agents. The aim of the qualitative interviews was to gather information on how the institutions under the NHIS interact with frontline providers to ensure that policyholders get quality services.

Econometric models

We estimated two models: a *simple logistic regression model* as a benchmark model to capture the probability that an individual who reported ill visited a health facility for modern health care; and a *multinomial probit model* which is used to look at an individual's likelihood of accessing quality health care. We used health personnel consulted (doctor, nurse/medical assistant, chemist/pharmacist, or other traditional healer, self-medication, etc.) to proxy for the quality of health care that an individual accesses when ill.

5. Presentation and Discussion of Results

5.1 Overview of utilisation of primary health care

The thinking undoubtedly has been that very serious barriers to health care use exist and these have been the main causes of most of the health inequalities witnessed especially in developing countries. So, in the past two or more decades, considerable efforts have been made to identify these barriers with the aim of increasing access to health care in the public

sector to reduce these health inequalities. Barriers that have often been discussed include: unavailability of health services (in terms of distance and travel time), financial (cost of services), perceived quality of service, and socio-cultural factors. In response to these challenges, key reforms were implemented in the area of distribution of health resources, cost containment and participation of private providers to expand coverage, increase choices and meet the needs of the diverse user.

However, some of these reactions often come in a "campaign" style instead of in a more discretionary and quality-sensitive manner. Moving beyond logistical accomplishment and improving quality has proved much more difficult. The problems of access seem to be too entrenched in developing countries and quick fixes appear to be too good to be true. Recent institutional reforms under consideration in developing countries – generally involving such client-centred mechanisms as health insurance schemes, provision of mobile health campaign services, strengthening of institutional capacity, improvements in the quality of health facilities and subcontracting of services to private for-profit and private non-profit organisations – seem to be doing some good in terms of improving utilisation of health care services. The results of our logistic regression model taken as the first stage in health care utilisation decision-making appear to provide enough evidence to confirm this. The results are presented in Appendix 2 (Table 1).

We find that membership of the NHIS positively influences the decision to utilise formal or modern health care services for the treatment of illness. In the model, health insurance is assumed to be observed, and hence is deemed to be exogenous. Individuals who are insured have an increased probability of utilising formal health care services with an effect size of 27% at a 1% level of significance. Individual characteristics also found to be statistically

significant include sex of the individual and the severity of illness. Household characteristics such as income (measured here as welfare), education level of the household head, presence of married couple, number of females in the household, and locality of residence all influence the chances of an individual utilising formal health care services.

A number of studies have suggested that social relationships are important in determining health care use. We find, contrary to other studies that showed a negative relationship between living with a partner and use of general health care, that the presence of a married couple in a household (formally or living in a consensual union) increases the odds in favour of utilising formal health care. We interpret this finding from the point of view of coping or support in terms of care-giving both at home and in health facility if hospitalised. There is equally strong evidence that the number of females in a household has a positive effect on the odds in favour of utilising formal health care where there is a reported illness or injury in the household. The presence of at least one female aged between 15 years and 65 years indeed increases the odds of visiting a formal health facility by about 9%. This can be explained by a number of reasons, chief among which is the fact that females are generally more likely to be caretakers both at home and at the health facility for other adults or children.

We find that some religious institutions are associated with a reduced likelihood of utilising formal health care, though the effect is not statistically significant. The model shows that if the household head belongs to the Islamic faith, is an adherent to traditional religion or reports no religion, the likelihood of visiting formal health institution for treatment reduces as compared to a household head that belongs to an orthodox Christian faith. Similarly, some ethnic groups appear to be less in favour of utilisation of formal health care for treatment of illness. Even though not statistically significant, the model shows that household heads who

are Ga-Dangbes and Ewes are less likely to favour utilisation of formal health care. There is, however, a statistically strong indication that Grusi (major ethnic group in northern Ghana) household heads are more positively associated with utilisation of formal health care as compared to Akans (largest ethnic group in southern Ghana).

We do not find any statistically significant evidence to show that welfare status has any effect on utilisation of formal health care. We want to think that perhaps, due to the cost containment effect of the DMHIS in mopping up the consequence of cost of care as a barrier, substantial space has been created for the poor to utilise formal health care in Ghana. Furthermore, in terms of employment, we do not find that the status of "none-employed households" (where nobody is employed in the household), as compared to male-earner-only households, has any effect on utilisation. This we also think confirms the fact that, perhaps, the exemption component of the NHIS creates a considerable degree of space for the poor and unemployed to utilise formal health care without being constrained financially. What we however find and which is of policy importance is that, as compared to male-earner only households, female-earner households are associated with an increase in the odds of visiting formal health care. This perhaps supports the suggestion that there is a considerable degree of positive externalities associated with female employment or receiving welfare assistance.

We capture institutional effectiveness of the district health insurance schemes using a district health insurance coverage index[1]. Due to the exemption schemes for the aged (70 years and above), children under the age of 18 years and the extremely poor, the district health insurance coverage index reflects the capacity of the district schemes to shoulder the bills of the exempted groups in the district. This ensures that health service providers in the district

[1] The district health insurance coverage index is measured as the share of the district population insured by the National Health Insurance Scheme

continue to provide health service to this category of people without turning them away. The district health insurance coverage index further reflects the effectiveness of the CHICs, SHINE committees and the health insurance agents in the districts (these are discussed later below). The sign of the effect of increased penetration on utilisation is positive indicating that district schemes' efforts are serving the needs of the needy. This is also seen in the fact that an increase in age is associated with an increase in the odds of utilising formal health care.

We also note that before individuals make decisions about visiting or not visiting a health facility, they consider a range of other community and facility characteristics including: the cost of travelling to the facility (which is seen in terms of time and transportation cost); the number of health personnel in facility (doctors and nurses); the number of beds (a proxy for size); whether or not the head of the institution is resident in the community; and the availability of standard medical equipment and utility services (regular electricity and piped water supply). It is believed that these represent a diverse range of indicators of quality of medical care and the true value of health care received by an individual is conditional on the quality of these facilities and their presence or absence.

Quite strongly our model indicates that if the head of a health institution is resident in the community, people are more likely to utilise formal health care. Indeed the odds of visiting a formal health facility increases by 34% if the head is resident in the community. This makes great sense if you consider also that the cost of transportation continues to be a barrier to the decision to utilise a formal health facility for treatment. A GH¢1 (USD 0.66) increase in the cost of transportation to the nearest health facility reduces the odds of using a formal health facility by as much as 0.93.

One of the deliverables of the health sector reforms in Ghana is the institution of mobile health services. Under this module there is an arrangement for qualified medical doctors to periodically visit rural (remote) communities to provide outreach health services, sensitise communities on a range of preventive health practices and provide minimal curative services (community health campaigns). As expected, the empirical estimation shows that communities that have received these health campaigns have an increased likelihood of visiting formal health care institutions for medical care.

5.2. Access to quality primary health care: The role of institutions

Access is seen in terms of availability, affordability and utilisation of primary health care by persons who need it. We consider access to quality health care in terms of individuals making a choice among four different illness treatment options, that is: using a qualified medical doctor, using a nurse or medical assistant, using a chemist/pharmacist, as against not using any of these (e.g. self-medication).

Specifically, we look at the performance of the NHIS institutions, proxied by the district health insurance coverage index, which reflects the ability to finance and manage health care delivery for its clients and exempted groups of people in a district. A high index reflects the effectiveness of the institutional agents of the NHIS: CHIC, NHIS agents, and SHINE in mobilising people unto the scheme. This is underpinned by the fact that individuals who are covered under the DMHIS do not need to contact the health insurance authority before utilising health care but rather directly visit service providers. The level of *institutionalisation of frontline provider facilities* reflects a response to the effectiveness of the NHIS. We control for this with variables such as the number of doctors, number of nurses, quality of utilities,

whether or not the head of the facility is resident in the community, etc. This is important as it reflects the value of services that a client is receiving at a health facility.

Our results are generally satisfactory in terms of the sign and significance of key parameter estimates. The result for our district mutual health insurance institutional efforts variable – that is, the variable that measures the level of institutionalisation – is particularly instructive in terms of increasing access to quality health care (i.e. doctors). The model shows that a percentage increase in the district health insurance coverage index increases the probability of consulting a qualified medical doctor by about 3% (significant at 1%). It is however negative to using chemical stores. This is a strong indication that DMHIS is making quality health care accessible to the people. It is also a positive reflection of the activities of the various auxiliary institutions under the DMHIS.

In response to the changing behaviour of clients and state policies engendered by the NHIS, frontline providers have to institutionalise health care service delivery. As hinted at earlier, institutionalisation of health care is reflected in improvements in the quality of facilities (regular availability of utilities such as water, electricity, etc.), presence of qualified health care personnel, reformed institutional norms, values and attitudes towards clients. How a healthcare facility is institutionalized has a major influence on people's trust in their services. It also reflects the quality and value of services offered in such health facilities and increases the intrinsic value of the services provided.

Our estimations show that individuals access quality health care services (medical doctor) where there is a regular flow of pipe water in the facility. If there is a regular flow of water in a health facility, the likelihood that people will use the services of the doctor increases by 6%

(significant at 1%) – 3% (significant at 5%) for a nurse/medical assistant – as against the situation where there is self-medication. We do not however find that the presence of electricity in a facility significantly increases the likelihood that either doctors or nurses will be consulted. This is perhaps because the use of electricity is not very important in terms of primary service delivery.

Another important quality of an institutionalized health facility is accommodating the head of the medical facility in the community of operation. The probability of utilising the services of a doctor increases if they are resident in the community. The effect of a doctor's residence in a community is to increase access probability by 8% (significant at 1%); a nurse or medical assistant's residence increases utilisation by about 2% (significant at 1%). These results are intuitively obvious for a number of reasons. The first is that it clearly reduces transportation cost which many times constitutes a large component of the cost of seeking health care and is a major barrier to utilisation. A second reason is that the residence of a medical doctor in a community increases familiarity and enhances ease of access. Anecdotically, doctors observed that sometimes people are simply overwhelmed by the sheer sight of their "long white dress" and are afraid to discuss or disclose key information relevant for effective medical decision making. This situation is somewhat remedied when a medical practitioner builds familiarity by staying in the same area.

An increase in the number of medical doctors in a community also significantly increases the probability of access and utilisation and significantly reduces indulgence in self-medication. Our model suggests that if the number of doctors in a community is increased by a multiple of 10, we will be increasing access and utilisation by about 9% and reducing self-medication by about 4%. We however do not get any indication that an increase in the number of nurses

in a facility increases the utilisation of the services of a nurse. We think this is perhaps because of the difference in value people tend to place on the services of a doctor as compared to a nurse.

5.3. Pathways through which the NHIS enhances client power

Clearly, there is strong evidence that the NHIS facilitates access to health care in terms of affordability in Ghana. Under the NHIS, clients in the health care market have now been given tremendous power to influence services delivered in three main ways. The first is what we refer to as "cost containment" (reducing out-of-pocket payment for medical care at the point of receiving care, thereby increasing the demand power of the poor and vulnerable). The second involves the widening of choices available to clients giving them the power to bypass low quality service providers. The third has to do with the activities of the auxiliary institutions of the NHIS (the SHINE, the CHIC and the NHIS agent.).

Health insurance reduces the average cost of health care for a treatment-seeking client. By limiting the need to make out-of-pocket payment for medical care at the point of receiving care, the scheme substantially reduces the amount that clients actually pay for health care. From NHIS clients' point of view, membership of the insurance scheme reduces the fear associated with potential "detention" at health facilities until medical bills are cleared as was common under the cash-and-carry system. With high level of NHIS coverage also, the health care needs of the poor and vulnerable – that is children (18 years and below), the aged (70 years and above) and the indigent – are significantly assured, widening the purchasing potential of clients and effectively increasing the volume of health care demanded.

Considering that health care facilities (frontline providers) survive on the amount of health care purchased (the revenue is used to pay salaries and other overheads), health personnel indicate that health facilities are effectively compelled to obtain accreditation from the NHIS to be able to provide services on behalf of the scheme to avoid losing out in the market. As more and more facilities strive to meet the accreditation criteria (which often forces them to improve quantity and quality of services), clients are offered value for investing in the NHIS.

One very important way by which client power may be weakened is the restriction of client choice. The NHIS enhances clients' power to choose where to go for health care (public or private accredited health providers) once they are covered under the scheme in the district. As the above discussion indicates, the increase in utilisation of health care due to the NHIS has intensified competition among frontline health service providers to receive accreditation from the NHIA in other to be able to provide services on behalf of the scheme. One of the norms of the NHIS is that before a health service provider can render service on behalf of the scheme it has to satisfy an outline of institutional assessment. This will include improvement in the array of services offered by a facility. The things scrutinized include the number of qualified health personnel, and availability and quality of utilities (water, electricity, beds, etc.). Effectively, what this means is that if a facility is not able to get accreditation to provide services on behalf of the scheme, that facility risks being sidelined since NHIS cardholders will bypass it to seek care from other institutions where services are available under the NHIS policy. With increasing cost of overheads and utilities, health facilities are better off upgrading to satisfy the NHIS requirement for accreditation, thus widening the choices available to clients.

Client power is also enhanced through the institutionalisation of committees such as the CHIC and the SHINE programme. These are deliberately set up institutions to give NHIS clients power to influence health services delivered. They facilitate citizen involvement in the health delivery arrangement by providing information and facilitating discussions. One other way by which client power may be weakened is the absence of information. The CHIC and the SHINE programme serve as an avenue for client information mobilisation and dissemination. The mandate of SHINE for instance is to find out why some people are not participating in the NHIS, and also to find out problems NHIS cardholders face at health facilities. The committee investigates these sets of concerns by organising durbars, visiting churches/mosques and undertaking door-to-door campaigns. SHINE has more direct influence on healthcare service delivery, since it is made up of people from the health facilities in the community, community members and NHIS management. It therefore allows healthcare service providers to get firsthand input from the client-base about the quality of health care provided. This then informs internal reforms of health facilities to cater more to the needs of clients.

The CHIC also engages in educating community members on the NHIS through local meetings. CHIC deals with any concerns or complaints community members express about the scheme and the quality of health care they receive. During meetings with the community, people are allowed to express their concerns about the scheme and its operation. The CHIC addresses any issues it can handle on the spot whilst more difficult ones are referred to the scheme management office. For issues bothering on health care services, the committee meets with frontline providers to solve them where possible.

The NHIS agent operates at the lowest (grassroots) level but is a key actor in the NHIS framework, serving as the focal point in a tripodal relationship between the scheme, clients and frontline providers. Our research showed that the agent is an important institution that is always on hand to settle disputes (misunderstandings or misconceptions) arising between service providers and NHIS policy holders as they interact to serve and receive services.

6. Conclusions and Recommendations

This analysis tells us that in developing countries, access to quality services can be enhanced by reforming and institutionalising services. Institutional reforms that recognise and incorporate the structures of local communities seem particularly more promising. In Ghana, there is a strong recognition of the importance of local institutions in the health service delivery process. As shown in the implementation of the NHIS, local institutions are important in ensuring that services designed for the people actually reach them. We find that the establishment of the health insurance institution is clearly a *movement* that has created an avenue for the mobilization of peoples' power to monitor and advocate for effective health care services. It provides an avenue to rally the energies of clients and give them power to demand quality service. The study confirms expectations that membership of health insurance increases people's chances of having access to a qualified medical practitioner

The people's power is increasingly being recognised by frontline providers. Hitherto, the health service delivery landscape, filled with a broad array of actors with multiple tasks and interests, created different levels of accountability with varying degrees of autonomy and efficiency. This system became clearly associated with market failures and gross inefficiencies in service delivery and deprived poor households in rural and urban

communities of access to publicly provided subsidies and facilities. The inability of Government to apply sanctions for inappropriate actions constituted a major defining challenge and led to weaknesses in accountability. Sanctions, both intrinsic and extrinsic, reward good behaviour and deter bad behaviour or irresponsible actions, but were non-existent.

Creating institutional spaces for direct participation of users and citizens in general is a robust means of concurrently empowering citizens and providing an avenue by which providers may be sanctioned. As participation is assured, client power is strengthened, thus making health care providers directly accountable to the local people, including the poor. The innovative institutional mechanisms adopted by the NHIS for increasing participation of people (especially the poor) in the management of health service at the local level are essential. The NHIS therefore provides the formal space for participation of citizens and to engage with service delivery through local committees such as the CHIC and the SHINE. At the facility-level, the NHIS has also developed platforms that bring providers, opinion leaders and users together to help manage the relationship between the facilities and the NHIS. These have led to improvements in the quality and efficiency of services delivered to clients.

Frontline providers on their part then have to institutionalise to meet the demands of the diverse population. Over the last five years since the implementation of the NHIS, over 1,500 private health care providers (including pharmacies and maternity homes) have been accredited to provide services under the NHIS; this has increased the quantity of services provided and also boosted accessibility (NDPC, 2009). Heads of frontline provider institutions confirm that the rigorous accreditation process has ensured that they have to institutionalise by making their services more attractive and of high quality. Health facilities,

in conjunction with DMHIS, have set up front desk services to attend to NHIS policy holders and help them navigate the formal health care system. Management of health facilities have ensured that they monitor the attitude and conduct of their service personnel (especially auxiliary personnel) to maintain good relations with clients. Indeed the institution of the NHIS has ensured that health care users are no longer seen as passive users but active participants in the health service delivery chain.

We conclude that further qualitative institutionalisation of frontline providers is an imperative to ensure that people have not just physical access to available health care, but access to quality health care. Institutionalisation of health care facilities will include improving on the quality and value of services, such as employing qualified medical personnel, improving the quality of utilities (regular flow of water in facilities), and ensuring that heads of health facilities are resident in communities or at lead live in close proximity to facility of service.

References

Abor Patience Asewah, Gordon Abekah- Nkrumah and Joshua Abor, (2008). "An examination of hospital governance in Ghana". Leadership in Health Services, Vol 21 No 1, pp 47-60

Anderson C.J. and Paskeviciute A., (2006). How Ethnic and Linguistic Heterogeneity Influence the Prospects for Civil Society: A Comparative Study of Citizenship Behaviour. The Journal of Politics, Vol. 68, No. 4, pp. 783–802

Azfar, O. Kähkönen, S. Lanyi, A., Meagher, P., and Rutherford D. (1999), "Decentralization, Governance and Public Services, The Impact of Institutional Arrangements: A Review of the Literature", IRIS Center, University of Maryland, College Park, USA

Collier Paul (2007) Accountability in the Provision of Social Services: A Framework for African Research. Centre for the Study of African Economies, Department of Economics, Oxford University

Dessy Sylvain (2007). Client Power, Citizen Participation, Institutions and Services Delivery: Theory and Evidence with Special Emphasis on Africa. Department of Economics Université Laval, Québec, Canada

Dewan Sabina, (2009). Institutions Matter: Exploring the differences in labour and welfare institutions for decent work in developed and developing countries. Centre for American Progress. www.americanprogress.org.

Ghana Health Service. Annual report 2009. Accra: PPMED-GHS; 2010

Goetz, A. M. and Gaventa, J. (2000) 'Bringing citizen voice and client focus into service delivery', *IDS Working Paper* 138, Brighton: Institute of Development Studies

ISSER, (2008). *The State of the Ghanaian Economy in 2007*. Accra: ISSER

Jackson K., (2010). Public Good Provision, Diversity and Distribution. Wilfrid Laurier University, Waterloo, Canada. http://www.wlu.ca/sbe/kjackson

Mills A et al (1990). *Health system decentralisation: concepts, issues and country experience*. World Health Organisation, Geneva.

Ministry of Health (MOH) The health sector programme of work: 2007-2011. Creating Wealth through Health

NDPC, (2009). Citizens' Assessment of the National Health Insurance Scheme: Towards a Sustainable Health Care Financing Arrangement that Protects the Poor. Accra, Ghana.

Osei-Akoto I., Atta-Ankomah R., Adamba C., and Domfe G., (2011). Resource flow in Ghana's Health Sector: Challenges and Effects on Service Delivery. Report prepared for Center on Budget and Policy Priorities, Washington, USA.

Reinikka, R. and J. Svensson, (2007). "The Returns from Reducing Corruption: Evidence from Education in Uganda", CEPR Working Paper Series no. 6363, Centre for Economic Policy Research, London.

Reinikka, Ritva and Nathanael Smith (2004). *Public Expenditure Tracking Surveys in Education*.

The World Bank (2003). World Development Report 2004: Making Services Work for Poor People, The World Bank and Oxford University Press, Washington, D.C.

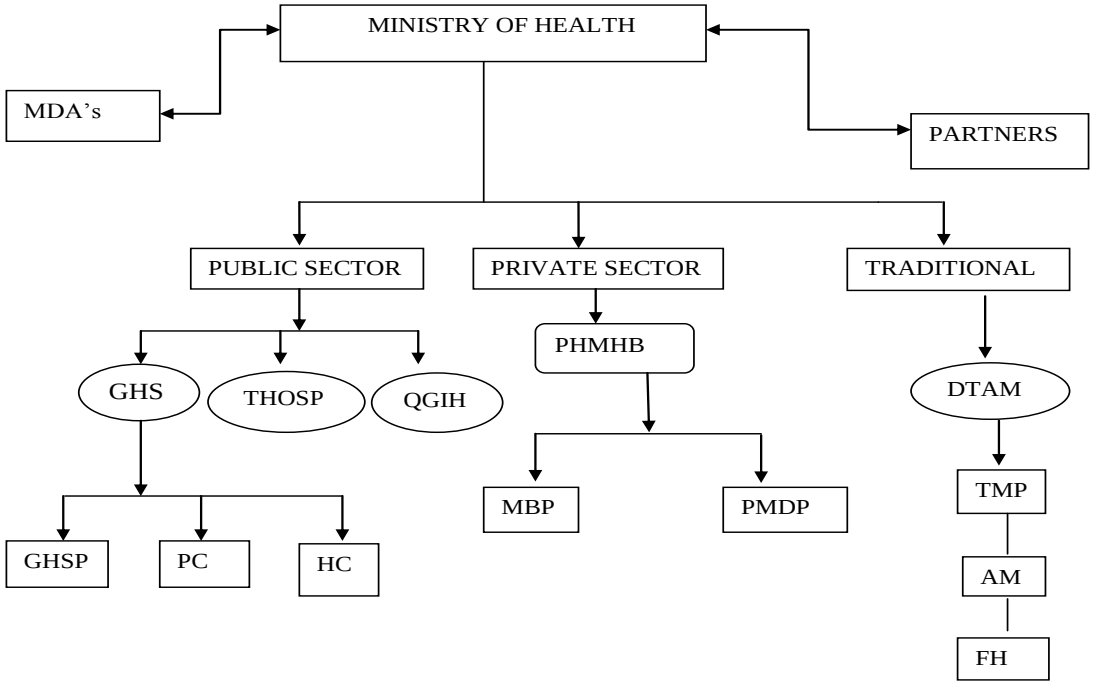
Wantchekon Leonard & Sarah Weltman (2007), Political Institutions and Public Service Delivery: A survey of the literature. Framework paper for AERC.

Witter Sophie and Bertha Garshong, (2009). Something old or something new? Social health insurance in Ghana. BMC International Health and Human Rights: Accessed from: http://www.biomedcentral.com/1472-698X/9/20

World Health Organization (2008). The World Health Report 2008. Primary Health Care – Now More Than Ever.

Appendix 1: Analytical frameworks

Figure 1: Structure of the Health Sector in Ghana

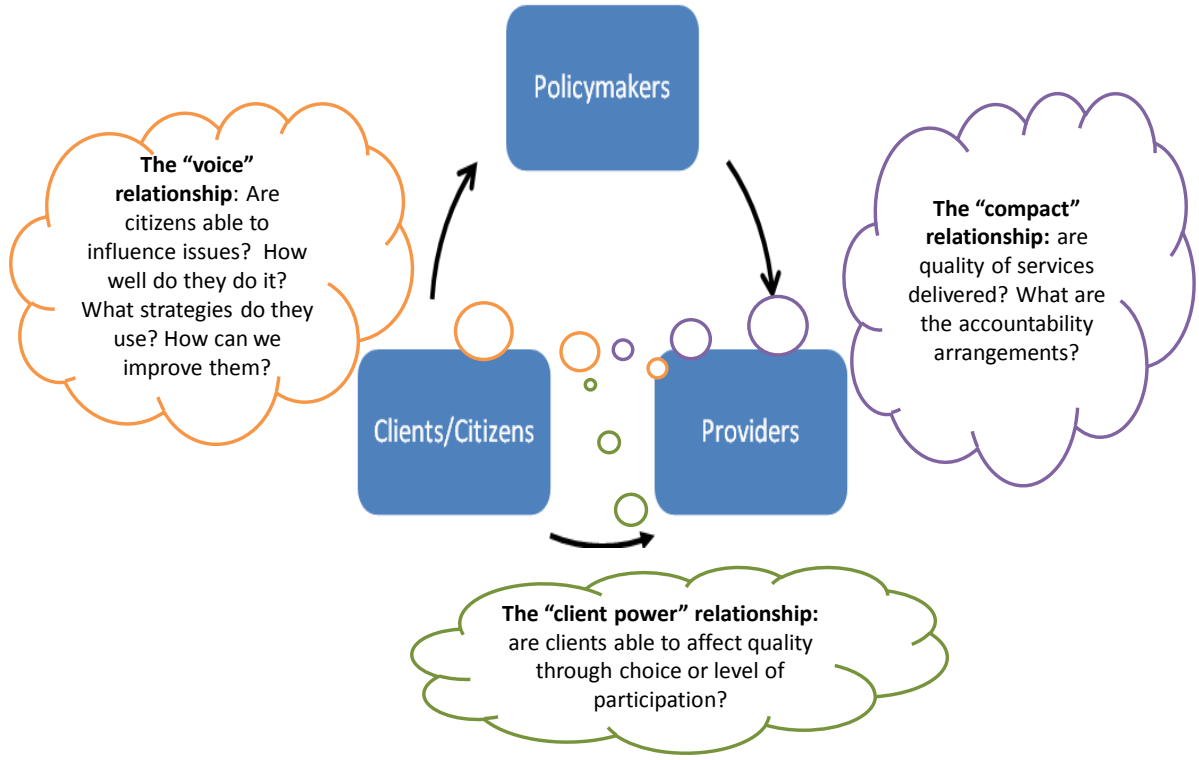


Source: Abor, 2008

Box 2: Meanings of acronyms used in figure 1

MDAs	Ministries, Departments and Agencies
GHS	Ghana Health Service
THOSP	Teaching Hospitals
QGIH	Quasi Government Institution Hospitals
PHMHB	Private Hospitals and Maternity Homes Board
MBP	Mission Based Providers
PMDP	Private Medical and Dental Practitioners
GHSP	Government Hospitals
PC	Poly Clinics
HC	Health Centre
DTAM	Department of Traditional and Alternative Medicine
TMP	Traditional Medical Providers
AM	Alternative Medicine
FH	Faith Healers

Figure 2: Framework of accountability relationships



Source: Adapted from World Development Report, 2004

Appendix 2: Results of econometric models

Table 1: Results of the binary logit model of the determinants of formal health care utilisation

Visit modern health facility	Odds ratio	Robost Std.Err	Z-value	P>|z|	[95% Conf.	
Insured	3.085	0.341	10.190	0.000	2.484	3.830
Age	1.003	0.013	0.270	0.786	0.979	1.028
Age squared	1.000	0.000	-0.530	0.596	1.000	1.000
Sex	0.806	0.088	-1.980	0.047	0.651	0.997
Married couple in the household	1.535	0.198	3.320	0.001	1.192	1.977
Healthy status	1.017	0.119	0.150	0.884	0.809	1.280
Severity of illness	1.270	0.178	1.710	0.087	0.966	1.671
Age of head	0.992	0.004	-1.940	0.052	0.984	1.000
Number of females	1.088	0.043	2.100	0.035	1.006	1.176
Education level of household head	1.471	0.212	2.680	0.007	1.109	1.950
Welfare	1.000	0.000	1.630	0.104	1.000	1.001
Welfare squared	1.000	0.000	-2.000	0.046	1.000	1.000
Gender-employment type (Ref.= Male-earner only)						
Female-earner only	1.336	0.204	1.900	0.058	0.991	1.803
Dual earner	0.869	0.110	-1.110	0.266	0.678	1.113
None employed	1.022	0.211	0.110	0.916	0.682	1.533
Religion of head (Ref.=Orthodox christian)						
Pentecostal christian	1.016	0.152	0.110	0.914	0.758	1.363
Islam	0.767	0.182	-1.120	0.265	0.481	1.222
Traditional/spiritualist	0.835	0.154	-0.970	0.330	0.581	1.200
No religion	0.638	0.181	-1.590	0.113	0.367	1.112
Ethnicity of head of household (Ref. group = Akans)						
Ga-dangbe	0.814	0.154	-1.090	0.278	0.562	1.180
Ewe	0.994	0.161	-0.040	0.968	0.723	1.365
Mole dagbani	1.259	0.316	0.920	0.358	0.770	2.057
Grusi	11.065	10.348	2.570	0.010	1.770	69.183
Other smaller groups	1.980	0.636	2.130	0.034	1.055	3.718
Transportation cost to the nearest facility	0.932	0.036	-1.820	0.069	0.864	1.005
Transportation cost squared	1.002	0.001	1.310	0.190	0.999	1.004
Average cost of medical care in a facility	0.999	0.004	-0.220	0.826	0.991	1.007
Health campaign	1.362	0.155	2.720	0.007	1.090	1.701
There is a hospital within 5km of household	1.052	0.157	0.340	0.734	0.785	1.410
Urban area	0.724	0.092	-2.550	0.011	0.565	0.928
Ecological zones (Ref.= Northern zone)						
Afram basin	1.594	0.408	1.820	0.068	0.965	2.633
Southern zone	2.075	0.522	2.900	0.004	1.268	3.397
District health insurance coverage	1.000	0.000	1.960	0.050	1.000	1.000
Wald chi2(33) = 291.14						
Prob > chi2 = 0.0000						
Pseudo R2 = 0.1063						
Log pseudolikelihood = -857219.69						

Notes: * p<0.10 ** p<0.05 *** p<0.01

Table 2: Average marginal effects of the Multinomial Probit Model - Utilization of Different Types of Health Care Services

Variable	Doctor		Nurse/Med. Assist.		Chemist/pharmacy		Self-medicate	
Insured	0.161	***	0.115	***	-0.019	**	-0.256	***
	8.210		6.290		-1.970		-12.170	
Age	-0.001		-0.007	***	0.001		0.008	***
	-0.640		-4.070		0.680		3.880	
Age squared/1000	0.026		0.063	***	-0.015		-0.075	***
	1.220		3.040		-1.430		-3.170	
Sex	0.018		-0.029		-0.015		0.026	
	0.870		-1.480		-1.610		1.180	
Married couple in the household	0.037		0.063	**	0.011		-0.111	***
	1.270		2.230		0.970		-3.440	
Severity of illness	0.058	**	0.001		0.005		-0.065	**
	2.230		0.050		0.450		-2.120	
Number of aged in household	-0.001		-0.001	**	0.000		0.002	***
	-1.300		-1.970		0.400		2.710	
Household head has secondary or higher education	0.017		-0.024		0.015		-0.008	
	0.690		-1.060		1.490		-0.290	
Expenditure on social functions	-0.339	*	0.354	**	-0.157	*	0.142	
	-1.790		2.020		-1.860		0.720	
Welfare/1000	0.022		0.070	*	-0.027		-0.065	
	0.530		1.620		-1.280		-1.380	
Welfare squared/1000000	-0.005		-0.019		0.018		0.022	
	-0.390		-1.370		0.290		1.580	
Number of females between 15 and 65 years in household	0.014		0.008		-0.015	***	-0.007	
	1.500		0.860		-2.680		-0.760	
Head of medical facility resident in the community	0.080	***	-0.006		0.022	**	-0.096	***
	3.340		-0.300		2.180		-3.800	
Number of doctors in facility 5km away	0.009	***	0.000		-0.005	**	-0.004	
	2.730		0.060		-2.300		-0.990	
Number of nurses in facility 5km away/100	-0.084		-0.078		0.073	*	0.089	
	-1.170		-1.230		1.930		1.100	
Facility 5km away has electricity	-0.011		-0.013		0.004		0.020	
	-0.350		-0.440		0.330		0.630	
Facility 5km away has running water	0.060	**	0.027		-0.014		-0.073	***
	2.410		1.170		-1.290		-2.840	
Traveling time to nearest facility/10	0.012		-0.002		0.009		-0.019	
	0.700		-0.140		1.340		-1.050	
Waiting time at the nearest facility	0.041	***	0.017		-0.019	***	-0.039	***
	3.890		1.490		-2.880		-3.300	
District health insurance coverage	0.003	**	-0.003	***	-0.002	***	0.002	*
	2.480		-2.740		-3.970		1.710	
There are mobile health campaigns in community	-0.040		0.034		0.041	***	-0.034	
	-1.440		1.330		2.600		-1.080	
Number of public health facilities	-0.052	**	0.006		0.023	***	0.023	
	-2.550		0.290		2.880		1.080	
Number of private health facilities	-0.001		0.007		0.019	***	-0.026	**
	-0.080		0.740		4.660		-2.300	
Locality of residence is urban	-0.086	***	0.076	***	0.012		-0.002	
	-3.340		3.400		0.900		-0.060	
MiDAzone (Ref. zone = Northern zone)								
Afram basin	0.058	*	0.042		0.047	***	-0.148	***
	1.760		1.380		2.830		-3.980	
Southern zone	0.084	***	0.033		0.051	***	-0.168	***
	3.170		1.430		4.960		-5.830	

Notes: * p<0.10 ** p<0.05 *** p<0.01; Figures in grey colour are z-values