

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,  
KUMASI, GHANA**

**ASSESSING THE EFFECTS OF CAPITATION PAYMENT SYSTEM OF  
NATIONAL HEALTH INSURANCE SCHEME (NHIS) AND HEALTH CARE  
DELIVERY IN ASHANTI REGION**

**BY**

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**A THESIS SUBMITTED TO COLLEGE OF HUMANITIES AND SOCIAL  
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## DECLARATION

I hereby declare that this submission is my own work towards the MBA and that, to the best of my knowledge, it contains no material previously published by another person, nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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## **DEDICATION**

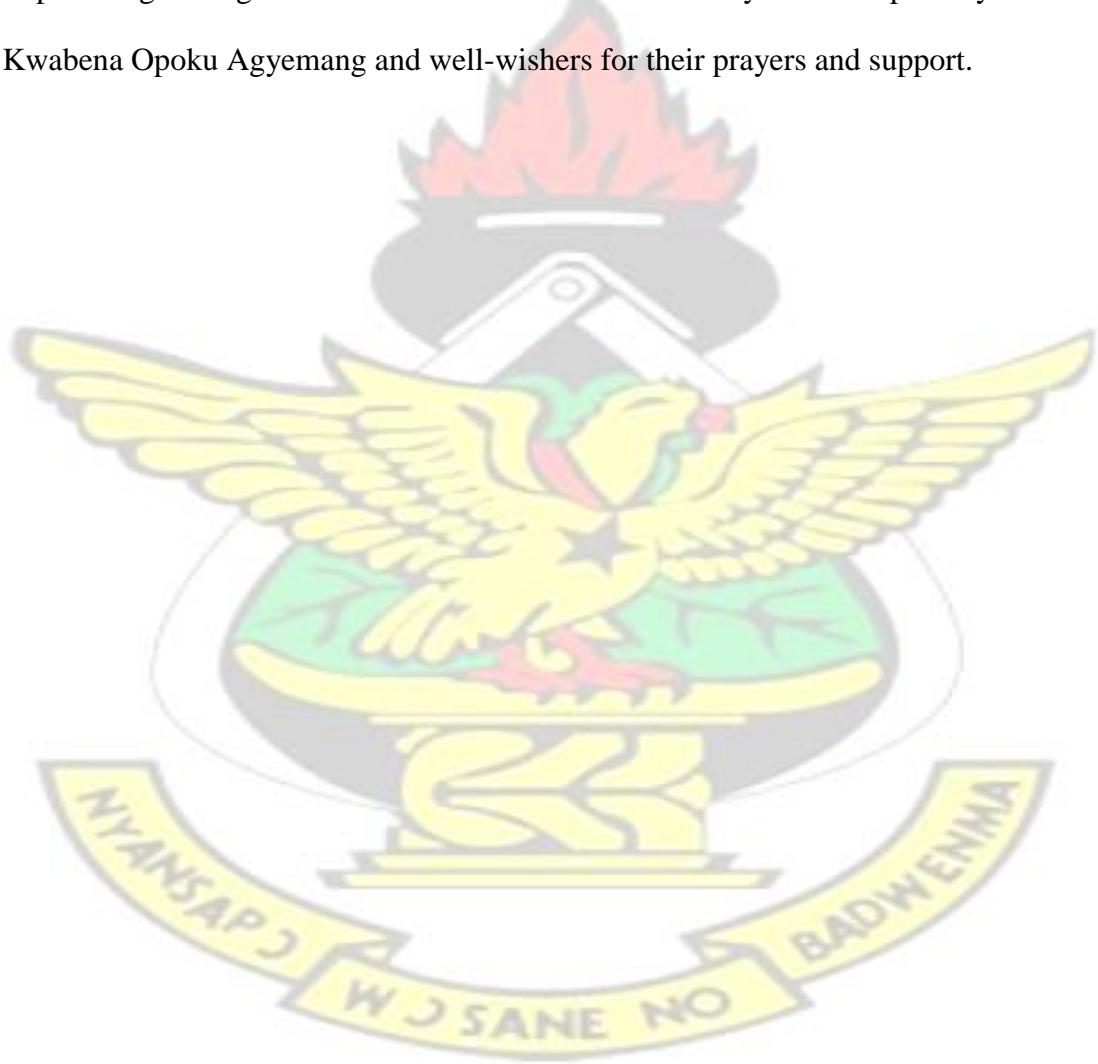
I dedicate this project to God and my dear family especially my wife and my children; Graham, Kelvin and Kofi without their support this project would not have been possible.

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## ABSTRACT

Health invariable is an essential component for nation building because health is wealth, however, the question is, what is the best means to pay for health care services? In order to ensure equitable access to health care, quality and affordable health care and efficient economic leverage aiming at sustaining our health service sector. Service providers and pressure groups claimed that, the system would motivate service providers to under-supply services, and reduce quality hence, adverse effects on patients' health status, as has been supported by many studies. This research sought to assess the Effects of Capitation payment system on health care delivery in Ashanti Region. The study was conducted with a quantitative method. Statistical Package of Social Sciences (SPSS) and Microsoft Excel were used to analyze data obtained from field research. A total of 250 respondents were selected randomly from NHIS staff, patients and service providers. The finding shows that the main ingredients of capitation system are Package of primary care services, Base per capital rate of 0.99 GH¢ in January and increased to 1.30 per member per month in April 2012 (15.60 GH¢ PMPA), enrollment of clients to Preferred Primary Providers (PPP), general and financial management and reporting systems (Common management Arrangement) as well as quality monitoring system. The study went further to reveal that; majority representing 90% of the respondents said they were not satisfied with the healthcare delivery under capitation and that significant majority do not see any improvement and effectiveness in healthcare delivery in Ashanti region. Lastly, policy makers should streamline the Capitation payment system to avert patient dumping and under-provision, and better provider relations to improve quality of care.



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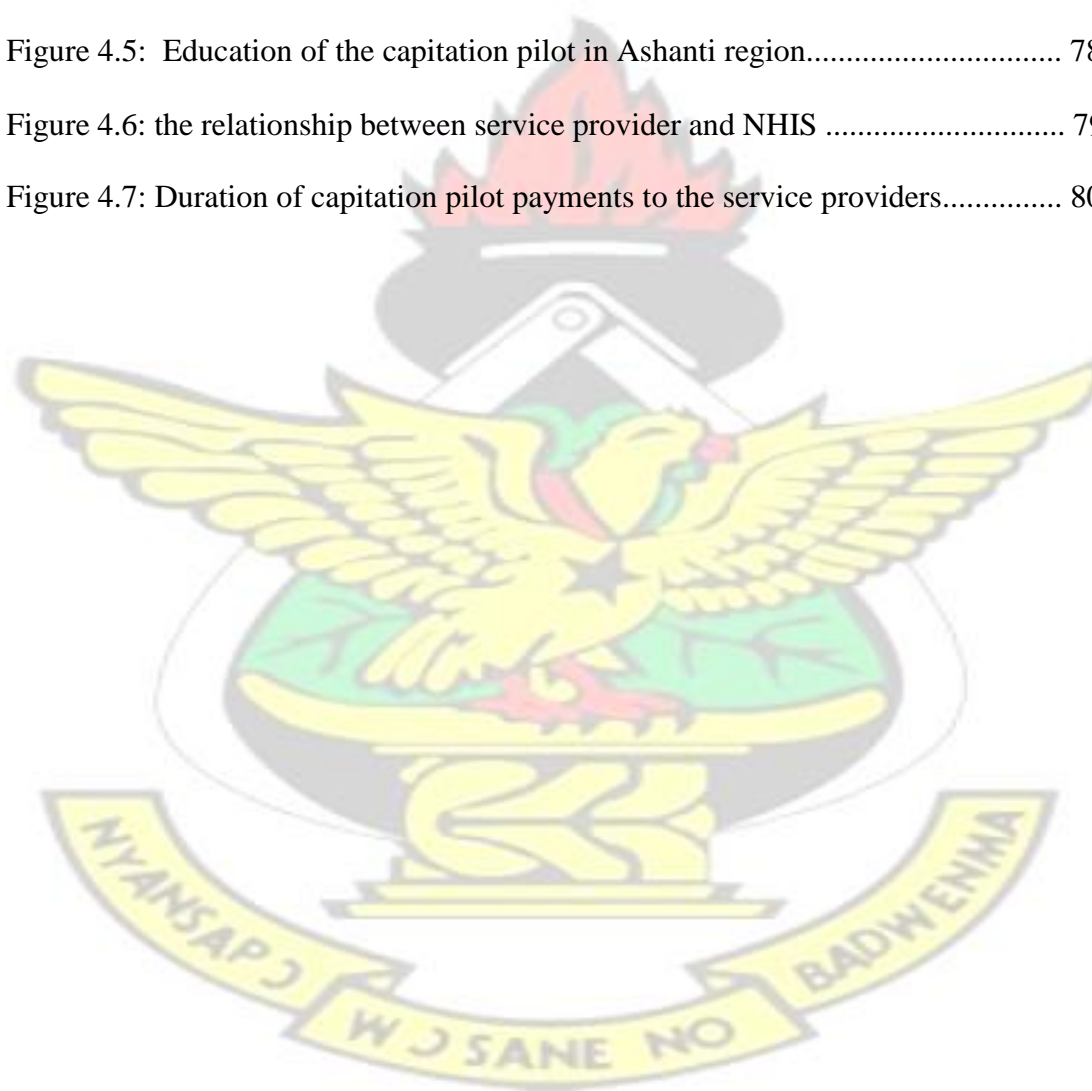
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## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background of the study

Health is extremely important, however, it seems very expensive for the average and ordinary Ghanaian to access quality healthcare services. This condition has motivated successive governments to initiate varied social interventions health policies since independence aiming at bridging the equity gaps to access health care among its citizenry; this is because the health of the person invariable determines the socio-economic development of the nation, Ministry of Health Annual Report (2008). Numerous researches have confirmed this assertion by indicating that, there is a positive correlation between health and wealth creation of a nation, there is no doubt that, this is the basis upon which five of the eight Millennium Development Goals (MDGs) either directly or indirectly related to health issues.

As a result, international bodies, nations and individuals extend financial and other supplementary services in supporting well-organized and effective operational health care systems for countries all over the world. This position is evidence in developing nations where there are a number of developmental challenges of which limited resources and poverty are dominant.

In Ghana's quest to improve access to health care and sustain it, the National Health Insurance Authority (NHIA) in 2003 through the enactment of Act 650 was introduced with the mandate of providing basic health care to persons covered by the scheme,

regulates the scheme, give accreditation and more importantly monitor health care providers operations operating under the scheme, National Health Insurance Act (2003). Since its operations in 2004, various payments regimes or systems reforms have been implemented to reimburse physicians aiming at bridging the equity gaps, access gaps and sustainability of the scheme. According to the NHIA report (2010), the way forward to carry out its mandates successfully is to implement the capitation payment system. As a result, in the first quarter of 2011 Ashanti region was chosen for a pilot study of the capitation payment system to determine the efficacy of the model.

The piloted report makes it clear that there was a successful negotiation and acceptance among stakeholders of this new additional payment system. Since stakeholders believed that, the capitation would streamline compensation administration and increase quality of health care service delivered to patients because there is a perception that capitation induces positive effect of cost containment leading to continual and sustainability of health care delivery. According to the National Health Insurance Authority, the primary health care and the OPD services will be reimbursed through the Capitation payment system whereas the inpatient and the specialized services will continue to use Ghana Diagnostic Related Groupings (G-DRG). Ashanti Region was chosen for the pilot study because of the heterogeneous culture and nature of the people in the region with the stakeholders' expectation of rolling the system in the third quarter of 2011 nationally. The National Health Insurance Authority identified these as the main Components of

Capitation Package; primary care services, with a base per capital rate of 0.99 GH¢ in January 2011 and was increased to 1.30 per member per month in April 2012,



Enrolment of clients to Preferred Primary Providers (PPP), General and financial management and reporting systems (Common management Arrangement) and Quality monitoring system. These were instituted to ensure that various stakeholders maximize mutual satisfaction but the program accidentally received fierce opposition and resistance from key stakeholders citing poor or insufficient compensation and over politicisation taking the centre stage.

Years after the implementation, the Capitation pilot undertaken in the Ashanti region was evaluated. The results indicated a 10% increase in NHIA active membership after an initial drop of 20% between 2011 and 2012, and a reduction in OPD per capita for insured clients and a reduction in claims under G-DRG. About 89% of clients rated services provided by providers as satisfactory. Due to the successful pilot in the Ashanti, three regions Upper West Region, Upper East Region and the Volta Region have been earmarked for scale-up of capitation as a provider payment mechanism as part of overall strategy to gradually scale up capitation to all the regions in Ghana.

The report indicated data quality and reporting challenges which impede capitation adjustments however; measures are putting in place to improve reporting quality and analysis by distributing a data-dictionary for MCH indicators. The report indicated that, the plan was intended to be hopefully rolled up in 2014 nationwide however; the NHIA had not been successful in the implementation of the system, however, no cogent reasons have been assigned to their inability to roll out the program nationwide.



Notwithstanding the resistance of capitation from the key stakeholders, the payment model is still in action in Ashanti region with the intension of rolling the program nationwide depending on its success in relation to cost control, access, equity and quality of health care. It is against this background that the researcher wants to access the effects the capitation payment have on the health of the people in Ashanti region.

## **1.2 Statement of the problem**

It appears that the Ghanaian health service is confronted with challenges in recent times with specific reference to appropriate and sustainable payment system that ensures access equity and quality health care delivery. This phenomenon has necessitated an introduction of numerous payments regimes including the capitation payment system practising currently in the Ashanti region of Ghana which has witness fierce resistance from various key stakeholders including service providers, subscribers and the general public.

These stakeholders' discontentment borders on the amount of proposed per capita on each subscriber that GHC 1.75 per month for government and private health facilities respectively is considered insufficient Adjei (2013).

According to the Ghana Medical Association (GMA), Adu and Serebour (2012), this development not only has the tendency to put health facilities at financial risk but also reversing to the cash and carry regime which has propensity to impede access and compromise the general wellbeing of the of the Ashanti's. The researcher indicated that, the situation is likely to motivated services providers to provide shoddy services to patients in the region and that the people

rights to health have been infringed upon under the capitation. Adu and Serebour (2012) concluded that, capitation is meant to provide a limited range of drugs to subscribers; they thought this is incorrect because people respond to different. Again the system will not ensure that all medicines entering the health sector are safe, efficient and of good quality. Wanju et al 2012, Forgo (2014), agree with Adu and Serebour that health service providers are worse off financially under the capitation payment system.

They further indicated that, people have little or no knowledge of the system and no feedback mechanism in place indicating where specifically a subscriber is engaged out of the three choices. According to Cameron (2011), capitation has the predisposition to limit subscribers' choice because patients are constrained to only one Preferred Primary Provider (PPP), this condition denies the patients of accessing health care from different health care providers irrespective of the problem. These revelations point to the fact that, subscribers of NHIS under capitation in the Ashanti region are not expressing satisfaction in terms of service delivery and therefore, the health of the patients in the Ashanti region is under threat under the capitation payment system.

Ghana Medical Association (GMA), Ashanti Development Union (ADU), the Society of Private and Dental Practitioners Association 2014, the Ashanti Parliamentary Caucus has vehemently kicked against the introduction and implementation of capitation payment system on the basis of the above factors. Moreover, several publications and reports have supported these trends. According to

John D. Goodson et al 2015 on the future of capitation, capitation has the tendency to upsurge patient health risk because there are motivations to shrink services and motivation to defer care beyond the repayment interval. It is believed that services in the low cost settings are pursuing by service providers under the capitation payment system. Many capitations fell into disrepute and were abandoned in many countries

Michael et al (2010) asserted that capitation has the potential to render hospitals to financial risk bearers" base on the principles of the capitation. Health providers become incapacitated and total collapse if total cost incurred exceeds total revenue generated from the capitation payment system. The researchers were of the opinion that, a provider will be at a loss at a state where expenditure incurred on a patient is more than the capitation payment per a member per Month, this invariable would have adverse effects on the facility concerned in terms acquisition of drugs, logistics and other variables that inform effective service delivery and patients" satisfaction.

At the clinical levels, The OPD per capita in Ashanti Region continued to drop from 1.17 in 2011 to 0.96 in 2012 and 0.91 in 2013. This trend is believed to be attributed to the introduction of capitation payment by NHIS in Ashanti Region in 2010. (Ministry of Health- Holistic Assessment of 2013 Programme of Work. The ability of the NHIS to pay promptly for the service providers feel reluctant to provide quality service to the patients, this is in relation with Tilley (2006). Providers payment system are, therefore crucial in achieving improve access, quality, equity and above all efficiency in healthcare delivery. Therefore as NHIA

seeks to control cost, the question that ultimately arises is whether or not capitation provides better health or patient outcomes compared to other already existing payment methods in use. Again, it is the intents of the researcher the NHIA has achieved its purpose of improving cost containment, shorten claims proceeding and to tackle problems involves in forecasting and budgeting, spreading financial risk of the scheme, bring market competition, efficient use of resources to ensure sustainability of the scheme.

Principally, this paper therefore seeks to assess the effects of capitation payment system on health care delivery in Ashanti region, given the arguments by most researchers like Mechanic and Aiken (1989), Mechanic (2011) that health outcomes under capitation may adversely be affected, coupled with demands from pressure groups to abolish the capitation

### **1.3 Research Objectives of the Study**

The general objective of the study was to assess the effects of capitation payment system on health care delivery in Ashanti region, of Ghana. Under this broad objective, the specific objectives of the study are to:

1. Examine the various constituents of capitation payment system of NHIS-Ghana
2. Determine the challenges associated with the capitation in Ashanti region
3. Determine the satisfaction level of patients and service providers under the capitation payment system.
4. Examine the nature of healthcare delivery in Ashanti region
5. Determine effect of capitation on health care delivery in Ashanti region



#### **1.4 Research Questions of the Study**

In order to assist the analysis, the following research questions were formulated to guide the study

1. What are the various constituents of capitation payment system?
2. What are the challenges associated with the capitation in Ashanti region?
3. What are the satisfaction level of patients and service providers under the capitation payment system?
4. What is the nature of health care delivery in Ashanti region?
5. What are the effects of capitation on health care delivery in Ashanti region?

#### **1.5 Justification of the Study**

The motive behind the NHIS was to achieve accessible, quality and efficient health care system for the people of Ghana. However, one major challenge is the financial sustainability of the National Health Insurance Scheme (NHIS) due to faster growth in healthcare expenditure (claims payment) relative to growth in GDP. As various strategies are been used to improve on accessibility, quality, and efficiency of healthcare delivery, it is important to know the potential effects on payment system under such policies, specifically under capitation, in achieving overall objectives of health systems. Based on the above, the capitation pilot program was introduced in Ashanti Region as one of the major ways of controlling health cost and eventually improves providers' service delivery to ensure subscribers satisfaction.



This study is, therefore, expected to help the government through NHIA, and other stakeholders to develop effective payment mechanism to providers and their effect on quality, and the health care delivery. It is to provide information on the kind of cost control measures adopted under the programme and patient – reported outcomes. This is particularly important now that at least the mechanism is likely to cover the entire country.

### **1.6 Scope of the Study**

This research work focused on assessing the effects of capitation payment system on health care delivery. The study was limited to NHIS capitation payment system in the Ashanti Region. The study covers staff of NHIS and service providers of five (5) selected NHIS districts in the Ashanti region. The districts were Adum NHIS, Bantama NHIS, Dichemso NHIS, Mampong NHIS, and Ejisu NHIS.

These regions were selected for the study based on population of the people in the area, proximity, availability of information, and of course the financial strength of the researcher.

### **1.7 Brief overview of research methodology**

This study covers five (5) purposively selected NHIS districts in the Ashanti region. The districts were Adum NHIS, Bantama NHIS, Dichemso NHIS, Mampong NHIS, and Ejisu NHIS. Purposive and random sampling techniques were used to select two hundred and fifty respondents comprising of NHIS staff, patients and service providers. Both primary and secondary data are collected for the study. The primary data is generated from questionnaires while secondary data is obtained from official

documentations (newspaper and internet publications, etc) and comments from customers on social media. Data collected is analyzed using the statistical package for social scientist (SPSS) and Microsoft Excel.

### **1.8 Limitations of the Study**

The following limitations are envisaged for the research. Due to the dynamics of the study area (Ashanti) which is different from other areas in terms of geography and culture, findings for this study may be difficult to replicate in other places in Ghana where there are no such amenities as The Internet and World Wide Web. The study is also limited to five NHIS district offices due to time constraints, reducing the study's capacity to collate more views. There is the potential for bias responses from NHIS staff, patient and service providers of the selected NHIS districts because of the fear of divulging vital information about the operation of their district. The study therefore assures respondents of anonymity and confidentiality in their provision of responses so that these potential limitations do not significantly affect the validity of the findings of the study.

### **1.9 Organization of the Study**

The study was divided into five major chapters. Chapter One focuses on the background to the study, statement of the problem, research objective and questions, its further consider the significance of the study, scope of the study, and finally organization of the study. Chapter Two touches on review of related literature both theoretical and empirical of capitation payment system. Chapter Three deals with methodology of the study and a history of capitation payment system. Chapter Four analyse the data collected and discussions of the study. The Final Chapter focuses on

the summary of major findings, conclusion, recommendation and implications of the findings

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## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Introduction

This chapter reviews related literature in the study. It covers such topics under the following sub headings such as overview of national health insurance scheme (NHIS), the capitation payment system in perspective, empirical and theoretical problems associated with capitation payment system, the methods of payments to the health service providers, capitation payment system and healthcare providers' satisfaction, the effects of capitation payment system on NHIS subscriber in terms of access or utilization, and provider-patient attitudes towards capitation payment system

#### 2.2 Overview of National Health Insurance Scheme in Ghana

In every social settlement, it is obvious that every individual at a point in time might need some form of medical care. This means that, every human being is a potential patient however, the challenges are that, the costs involved in accessing quality health care are mostly beyond the head of the patient. This defeats the World Health Organization (WHO) core mandate of ensuring accessible and affordable health care for all persons particularly the vulnerable. The WHO conventions advocate to all

nations to generate conditions to facilitate in building a healthy nation through the right to health convention of which Ghana is treaty to it. It is on the basis of this the Ghana government adopted the National Health Insurance Scheme (NHIS) through the Health Insurance Act 650 as a corporate body. The purpose of the Authority is to realize universal health insurance coverage and to provide health care services to persons covered by the scheme. The scheme aims at mitigating the effects of high cost of accessing health care services. People therefore register with the NHIA to protect themselves against possible financial loss due to health care use. The policy is made up of social and private types with the social type prevailing. The policy fundamentally covers virtually all medical expenses. According to Arhin & Koranteng (2001), health insurance is a mechanism in which the risks of incurring health care costs are spread over a group of individuals or household.

All over the World nations are showing interest in the promotion of health care for its citizenry by committing considerable resources to health sectors. The Abuja declaration in 2001 urges that African countries should allocate at least 15 per cent of their Gross Domestic Product (GDP) in financing health. It is believed that, the rationale behind this declaration is to enhance access to health care and to further improve quality of health care. It is on this basis that the Ghana government increased its budget to the health sector in 2012 by 5.6 per cent above the 2011 budget allocation, (GHS report 2014). In pursuance of this agenda, the Ghana government through the National Health Insurance Authority with their core mandates of providing protection of financial risks by making NHIS subscribers having easy access to health care, and to manage the scheme such that it would be sustainable; the capitation in their



assessment is the appropriate payment method. The new law, Act 852 (2012) is intended to consolidate the activities of the scheme, get rid of challenges face by the scheme and to bring transparency to bear by reducing corruption and finally for more effective governance of the scheme.

Researchers including (Blanchet et al, Witter et al, 2009) stated that, the NHIS is a public health insurance system that was built purposely on existing district-based mutual health insurance schemes (DMHIS) with the intension to assist patients covered by the policy. According to USAID health system the membership of NHIS has increased progressively over the years and 61% of the population has subscribed to NHIS in 2008 in Ghana. McIntyre et al (2008) asserted that Membership in the NHIS should be obligatory unless individuals obtain private health insurance; he was of the view that less than 1% of the population should be in the private health insurance scheme and further argued that this position is relevant in dealing with the situation in Ghana. Witter et al (2009) confirmed the NHIS policy contents that, people above 70 years were exempted from paying the NHIS premium and people aged below 18years with both parents registered as members of the scheme were also exempted from the scheme. There is a six-month gap between enrolling in the NHIS and becoming eligible for services in Ghana. The researcher argued that the government needs to pay 2.5% of the value added – tax paid by consumers of goods and services that constitute the National health insurance levy to the scheme operators to facilitate timely disbursement of funds to service providers.

Witter et al (2009) established that, for National health insurance to function well, workers from the Formal sector need to contribute 2.5% of their gross income through



source deductions into the insurance trust fund. The scheme has been operating since 2004 in 145 districts and five satellites offices across the country with 8.2 million representing 33% of the country's population active membership, (Annual Report NHIA 2011).

## **2.3 The various constituents of capitation payment system**

### **2.3.1 Introduction**

The sub-topic highlights the concept of capitation payment system and the two models of capitation payment systems which include the „Global and the Partial or Blended. It further considers comprehensive enrolment principles of the capitation payment system in Ghana and various reimbursement models and payments systems. Additionally, challenges associated with the capitation payments are reviewed alongside with empirical evidence on the benefits of capitation payment system. Finally, the general overview of Ghana sector, health trends, and challenges of the sector and how patients' satisfaction is measured are considered.

### **2.3.2 The concept of capitation**

Capitation payment system has the core mandate of controlling health cost, Baffour et al (2013) and this position is confirmed by the Dictionary of Health Economics (2005) definition of capitation, it states that physicians or healthcare providers are given a fixed fee per period per patient covered by the scheme and is often adjusted according to age or sex of patient irrespective of the amount of services offered or spent. Rice and Smith, (2009) argued that the amount of health service funds allocated to a subscriber goes with some features for the service in question, for the time period in question, are also subject to overall financial plan limitations, and in effect, puts a price

on the head of every enrollee. Leida et al 1997 concentrated on the issue of payments adjustments to reflect real conditions in the health market; the researchers opined that the compensation to providers should be structured for health care needs of patients. They concluded that, payment to providers should depend on the risk type to which the subscriber belongs. Capitation is basically focuses on payment of fixed amount per person and is paid out front to service providers with the concern of providing or arranging to provide, contracted healthcare services to the accredited person for the specified period. By this, the receiver (provider) accepted to provide healthcare services to all those insured in that health plan regardless of what the actual cost of services would be. (Alguire 2014), asserted that, capitation in brief is a fixed sum of money per patient per unit of time paid in advance to a medical practitioner for the delivery of health care services, moreover capitation can be partial or global. According to Hornbrook and Goodman (1991) a good risk-assessment model should include measures of the beneficiary's health status. All potential risk adjusters should relate to permanent or semi- permanent dimensions of health.

### **2.3.2 Models of capitation**

Researchers point to the fact that; capitation models are categorized into two, namely “Global Capitation” and “Partial” or “Blended Capitation”. Health Care Incentives Improvement Institute (2010) indicated that in global capitation, member enrolled in the health plan pay fixed amount of money to hospitals and physicians directly through a system of network. , According to the researchers, in determining the method of sharing the capitated check among the service providers; a contract must be signed with National Health Insurance Scheme to cover all the members. Other researchers

opined that concerning a partial or blended capitation model, payments are made for health services provided to the patients, other payment method such as fee for services cater for patient's care at the hospitals. The capitation model involves risk adjustment and it must be considered to reimburse health care providers for the risk they take-on. It is believed that reliable and efficient data about patients make this assessment readily difficult in Ghana.

Under capitation contracts, payment is on a per-person basis. Physicians are paid a fixed, up-front rate per person enrolled in their list regardless of the type and amount of services used. The capitated payments are sometimes risk-adjusted in order to account for differences in the age and health distribution of the patient population across physicians. Since the money follows the patient independent of service utilisation, capitation is thought to incentivise cost containment and under-provision of services (even below the clinically necessary levels) (Ellis and McGuire (1986), Ellis and McGuire (1990), Pauly (1990), Blomqvist (2005)). Further, it may induce physicians to shift more care to specialist and hospital services in order to minimize their effort while still retaining the capitation fee (Allard et al. (2011), Blomqvist and Leger (2005)). Thus under capitation the scope and gatekeeper role of general practitioners becomes limited. Physicians may further have incentive to select patients avoiding those with high levels of needs (the so-called „cream skimming“), especially when the payment is not risk-adjusted (Barros (2003)). It is also possible that capitation promotes preventive work since under capitation physicians would like to preserve their patients' health status to avoid future costly treatments.

In 2010 the World Bank supported Ghana to introduce capitation payment system as part of the National Health Insurance services. According to Asong (2013) the National Health Insurance scheme in Ghana selected Ashanti region for the piloting of the capitation payment system because the region is situated in the middle of the country, heterogeneous infrastructure and culture. The scheme was planning to extend the capitation payment system to the other nine region based on how its implementation in Ashanti region would be evaluated. Ansong went to state that, the motive behind capitation payment system allows patients to choose specific service providers, improve health care quality as well as cost containment and share financials risk with service providers.

According to Iversen and Luras (2000), capitation has the tendency to increase referral of patients to other health care facilities for services they can treat. Again, Glazier et al (2009) indicated that, capitation is likely to attract a higher emergency care reports, and the likelihood to attract lower patronage couple with limited afterhour care compared with the FFS. Hibbard et al (2001), under capitation, physicians are likely to promote patients' self-care. These in sum, result in lower continuity and diminishes the amount of health care. Managers of the scheme try to optimize productivity by adjusting the risks of patients to increase rewards to physicians. Capitation has the potential to reduce cost by removing the interest for SID, and promotion of diseases prevention and health promotion.



Ansong (2013) indicated that, capitation payment model can be effective if it is integrated with other payment schemes especially for other services than the primary care levels.

Researches have indicated that an introduction of capitation in many jurisdictions has witnessed fierce resistance from key stakeholders. Wranik et al (2010) were of the view that among the various payment systems, Fee for Service is the most variable, capitation is less variable and salary is the least variable. They further contended that, blended systems can also be accommodated along this variety depending on the mix for effective health delivery.

On the local front, the NHIA introduced the capitation or per capita payment based on the following factors:

- To reduce high administrative transaction cost of the national health insurance scheme.
- To reduce time in preparation of claim cost, submission as well as vetting and reimbursement associated with the Ghana DRG based payment system and fee for service claims of the outpatient department (OPD) care.
- To avoid present problem of delay in payment of claim to the service providers.
- To bring improvement in the activities of the national health insurance authority in terms of forecasting and budgeting.
- To reduce fragmentation of care and introducing continuity of care for patients by attaching them to a service provider of their choice.

- To enable proper implementation of transferring a patient from hospital to another.

It is however uncertain as to whether the introduction of capitation in the Ashanti region with the hope of implementing it nationally will achieve its intended objects and this is the rationale behind this study.

### **2.3.3 Global or Full-Risk Capitation:**

Massachusetts Medical Society (2010) affirmed that, capitation is categorized in two but characterized with many variations. They refer the first one as 'global capitation,' which focuses on whole networks of service providers or physicians group together to receive a single fixed monthly payments for registered health plan members; the researchers pointed out that, under global capitation, the providers sign a single agreement with the scheme managers to cover the entire cost of care of groups of members, the operators then determine a strategy to apportion up the entire capitation payment among themselves. The second type identified by the researchers of this capitation is simply capitated payment contracted to a particular provider group or a physician group, or a hospital, or individually. Clifford et al (2001) asserted that, global capitation including institutional risk is still a significant factor in many market, provider networks, and medical group this because it determines how best cost could be contained by the scheme provider to inform sustainability of scheme.

Elliot (2008) stressed that one of the primary reasons of increasing cost and poor quality in terms of health care delivery is as a result of payment system that rewards more care, increased capacity, high margin treatments and entrepreneurial behaviour.

He believed that, in order to implement efficient and effective payment reform, institutions should develop accountability for capacity through capitation or global shared savings. Elliot (2008) research validates the evils of the fee-for-service system and the need to move toward capitation or shared savings models that support the transformation of care. He cautions the insurers to manage the risks of the scheme with utmost care in order to make the scheme successful by achieving its intended objects, he further reiterated by appealing to stakeholders to leave most of the management of risk in the hands of the experts (insurers) or constructing that capacity and infrastructure into the unified systems themselves (a la Kaiser). The researcher confirmed with the assertion that, effective timing couple with accurate data is critical success factors of this type of scheme. Clifford et al (2001) further explained that global when underfunded, or undermanaged, can suck the lifeblood out of contracting providers in a relatively short period of time therefore they warned that this type of scheme should be managed with extra careful.

#### **2.3.4 Partial or Blended Capitation**

Under the blended or partial capitation, some categories of health care services are taken care of by the capitation payment system such as the primary health care services, mental health care whereas other services are paid on fees-for-service basis (Custer and Klazinga 2007). The model basically identifies various service delivery points and combines capitation and Fees-For- Services (FFS) in paying for services provided by the health care providers, American Academy of Family Physician (2015). The model is attracting high patronage as a form of physician remuneration because of its positive effects on health care delivery Ma (1997). The researcher opined that, in general

practice, it will be premature to determine comprehensive effects attributed to blended capitation. He however argued that, in combining capitation payment method with FFS there is the possibility to increase health promotion and disease prevention, and at the same period sustaining output and patient access equality. Lamers (1997) asserted that, partial capitation system strongly reduces the problems of both (potential) cream skimming and a partial spreading of payments over the insurance funds; it also strongly mitigates their incentives for efficiency.

Simoens and Giuffrida (2004) identified the following blended payments (i) partial capitation which combines FFS payments for a subset of services with capitation for services that are less amenable to piece-rate production, (ii) mixed models that blend elements of capitation payment, pay-for-performance incentives and FFS, (iii) bundled payments that pays the accountable provider organization a fixed amount for the bundle of services required for treatment of an episode of care and (iv) shared savings arrangements, which pay FFS to service provider organizations but periodically share savings if total payments are less than a predetermined total healthcare cost (budget) target (Robinson 2001). (Simoens and Giuffrida 2004, Robinson 2001), indicated that, the most refined partial capitation compensation methods cannot entirely eliminate motivations to over-treat or under-treat patients created by FFS, capitation and salary, and other complex payment methods may create their own set of perverse incentives (e.g. gaming the system) (Simoens and Giuffrida 2004).



## **2.4 Enrolment Principles of Capitation Payment System in Ghana**

2.4.1 The enrolment principle seeks to deliver these four basic objectives in our health care delivery in Ghana:

- unrestricted access to an even package of quality primary health care for all legal NHIS subscribers
- encourage flexibility for subscribers choice to PPP and also membership portability
- to ensure subscribers satisfaction by averting under-servicing and malpractices by incorporating quality assurance systems and implementation of rewards and sanctions for health care providers and personnel
- promote managed competition among primary care providers aiming to ensure quality improvement in service delivery

### **2.4.2 Selection and deletion of Primary Provider at Enrolment**

The system allows a subscriber to select a facility of his or her choice in their district of permanent residence and this chosen facility shall be the preferred primary provider (PPP). However, a subscriber can select PPP outside his/her district if that facility is nearer to his/her home and once the facility is accredited by the NHIA. Subscribers are asked to select three PPP but only the first one is tied to now. Moreover, the specialist clinics including the eye and dental clinics shall not be opted as PPP and will be reimbursed under the G-GRG payment system. All other specialist services covered

by the NHIS with the exception of dental service is accessed via referral from the subscriber's PPP or another provider, other than that, the subscriber is personally liable for the entire cost of services rendered.

Subscribers are however permitted to change their PPP two times a year in a period of January and July however, a subscriber could be considered to effect change on the basis of quality.

#### **2.4.3 Maximum Enrolees per Provider**

To ensure efficient service delivery, facilities will be provided with a reasonable number of subscribers taken into consideration the physical capacity of the provider, human resource base of the provider, availability of primary health care facilities in the catchment area and quality service delivery. The determination will involve all key stakeholders including the GHS, CHAG and others and clear, transparent and agreed standards will be used, however, enrolment capacity is subject to renewal on yearly basis.

#### **2.4.4 Transfer of a Subscriber and Portability within Capitation**

A subscriber who is in a temporary or permanent transfer to a new district must obtain a certificate of temporary or permanent transfer from the local district scheme office and a medical referral from his/her PPP before he can access health care at the new district under capitation. Portability at emergencies is treated at all levels being primary, secondary or tertiary provider but the provider must notify the NHIA regional office with a proof of evidence (attendance) within 48 hours before payment is done.

### 2.4.5 Reimbursement Arrangements under Capitation

Compensation under capitation is set around identifiable variables including population, age, gender, marital status, socioeconomic issues, morbidity and associated variables, to ensure parity in the allocation of rewards (Chawla et al 2007). The researchers identified the basic and complicated formulae in the computation of reward packages to physicians.

The basic formula considers only the number of subscribers in a given facility; let consider facility „A“ or Dr. Antwi has 2,836 subscribers with per capita of Ghc 2.5p.

Basic capitation for facility A or Dr. Antwi is computed as:

$$2,836 \times 2.5 = \text{Ghc } 7090 \text{ per Month}$$

Complicated formula incorporate further variables mentioned above including the physician's characteristics such as working experience. Let consider in a given area there a two physicians; Dr. Poku and Dr. Akomea. Dr. Poku has 2500 subscribers, of whom 1500 are female and 1000 male, again, 500 subscribers are under the age of six, 1500 are between 6-65, and 500 are above the age of 65. Dr. Poku has 20 years of experience as a physician.

Dr. Akomea just graduated from school and has less than 1 year working experience. He has 3000 subscribers of whom 2000 are female and 1000 are male. Moreover, 400 subscribers are under of six, 2000 are between the ages of 6 and 65, and the remaining 600 are over 65 years. Assuming the capitation formula awards 1 point per a subscriber for the first 2,500 subscribers and 0.5 points per subscriber afterward.

Subscribers below the ages of 6 and above, the ages of 65 are given an additional 0.5 point each. Regardless of age, female subscribers are given an additional 0.1 point and physicians with more than 10 years of experience are given additional 2% for every additional year of experience. Each point is valued at 1 cedi.

Dr. Poku's reward:

Basic capitation fee:  $2500 * 1 = \text{Ghc}2500$

Age-specific add:  $(500 * 0.5 + 500 + 0.5) = 500$

Gender-specific add:  $1500 * 0.1 = 150$

Experience Bonus:  $(16 - 10) * 0.02 = 12\% = 378$

Total amount:  $= \text{Ghc}3528$

Dr. Akomea's reward:

Basic fees  $2500 * 1 + 500 * 0.5 = 2750$

Age-specific add:  $(400 * 0.5 + 600 * 0.5) = 500$

Age-specific add:  $2000 * 0.1 = 200$

Total amount:  $\text{Ghc}3450$

In the Ghanaian context, the out-patient care covers specified capitated services and medicines but surgical services are reimbursed under the G-DRG system. Moreover, referral to a specialist or a facility will be rewarded on G-DRG and FFS for medicines without considering whether the subscriber accessed care at the OPD or admitted (Capitation Enrolment Regulations 2012).



Again, in-patient care at all service levels shall be paid under G-DRG system of payment, however, patient held in a primary provider's facility for 24 hours or less will be treated under the capitated outpatient services (Capitation Enrolment Regulations 2012).

#### **2.4.6 Stakeholder Responsibility**

##### **Subscriber**

- a. choice a provider (PPP)
- b. Accessing health care from only his/her PPP except in the cases of emergency
- c. Acquire certificate of temporary or permanently in the cases of transfer from district officers
- d. Avoiding system exploitation by accessing medical care he does not need (Capitation Enrolment Regulations 2012).

##### **District Scheme Offices**

- a. Offer registration to new membership
- b. Furnish the subscribers with a complete list of accredited primary providers within the district and possible outside the district
- c. Allow subscribers choice their own PPP, change PPP
- d. Issue transfer certificates to subscribers (Capitation Enrolment Regulations 2012).

##### **NHIA regional offices**

- a. Ensuring fairness in the enrolment process by supervising the districts offices

- b. Coordinate with the district offices to help subscribers assign to PPP or their chosen PPP is overstretched.
- c. Scrutinize and approve movability claims (Capitation Enrolment Regulations 2012).

#### **NHIA head office**

- a. Coordinate with stakeholder to develop, monitor, evaluate and review the system
- b. Corporate with the districts and regional offices to equity, efficiency and effectiveness in the system
- c. Make sure that payments are made promptly to providers (Capitation Enrolment Regulations 2012).

#### **Providers**

- a. Provision of complete primary health care
- b. Abstain from providing sub-standard or under-serving a subscriber on the basis of cost saving or discrimination
- c. Providers should not only be prepared to refer subscribers to a higher or better facility but promptly as well
- d. Submit accounts of services rendered to NHIA for review for compensation (Capitation Enrolment Regulations 2012).

### **2.5 Problems associated with capitation payment in healthcare delivery system**

Kongstvedt (2001) identified three major common problem of using capitation as a mode of payment to health service providers. He asserted that capitation involves

chance in terms of patients or subscribers accessing health care because of the propensity of enrollee underutilizing or over utilizing health care.

The researcher further indicated that, health service providers and their working staff perceived that, the capitation payment is not adequate to motivate them offer quality health care service to patient even though capitation is now practice by some nations including Ghana and this position is confirmed by Baffour et al (2014) and authorities. The major last perceived problem is inappropriate underutilization. Kongstvedt (2001) made an argument against capitation in general and risk – and – reward arrangement in particular, is that the MCO is paying physicians to not to do something and that is dangerous.

Miller (2007) asserted that capitation payment method seldom fail to pay enough money to the service providers to enhance the health care delivery. Additionally, inadequate payment to service providers for healthcare delivery discourages service providers to give their maximum best in the health care delivery. Miller (2007) continues to argue that, individual contributors of the national health insurance scheme are not motivated enough to pay more for the best health care and the situation is affecting the effectiveness and the survival of the national health insurance scheme.

Pham et al. (2007) contributed to the fact that global capitation put service providers at significant commercial threat, and therefore putting in place appropriate payments typically involves attention to risk-adjustment, limiting the impacts of high-cost “outlier” patients, and ensuring equitable payment to different types of providers. Global payments also require payers to assign patients to particular providers for the

drive of making disbursements; this can be challenging in a delivery system where patients receive care from many unrelated providers.

Some researchers have stated that, possible difficulties or issues related to global capitation include concerns about access, quality, and equitable service provider payment. The argument is that, failure to ensure proper health care delivery from the service provider is as a result global capitation arrangement that service provider consider as less expensive. The situation has been the concern of service providers about the effects of health insurance products on service provider behaviour (Robinson 2001; Pauly and Nicholson 1999; Miller and Luft 1997)

Some researchers make it clear that, service providers who are small in number as well solo practitioners enter major problems in handling financial risk. In a hospital, a few unusually high-cost patients can significantly increase cost averagely. It is believed that, hospitals without the proper directorial structure required tracking and managing costs under global capitation to ensure effective health care delivery.

## **2.6 Other method of payment to health service provider**

Fee for-Service (FFS), Capitation, and Diagnostic related Group (DRG) are the basic payment models to health care providers. To optimize the full benefits of each of the models, health providers often blend the three systems aiming at achieving mutual satisfaction. Again, other countries practice the pay-for-performance systems with the motive of improving health care delivery.



It is believed that, there is a correlation between patients' satisfaction, physicians' satisfaction, and the supervisors (NHIA) satisfaction because there is a perception that, a particular mode of payment will impact service delivery in the delivery chain among all stakeholders. In addition, the financial theory predicts that the payment method produces a kind of inspiration that influences performance of service providers. McGuire (2000), asserted that, in agency concept positions, the payment method is used by „the principal“ (in this context this can be the supervision, a guarantor or a service provider) in order to persuade particular attitude by the service providers.

Different payment methods therefore can be used to incentivize and promote different health policy goals, McGuire (2000). NHIA annual report (2012) asserts that, the modes of payment to health care providers to deliver the covered package of services are an important strategic lever in UHC. The report further indicated that, the provider payment methods aid to reconcile financial activities aiming at facilitating efficient health care delivery. The report however, indicated that each method has its own pros and cons and as a result, there is no perfect payment method. It was shown that, all the payments models have the potential to create unattractive inducements and hostile outcomes and all is advantageous at different times depending on the intentions. Ghana in her quest to maintain cost aiming at sustaining the NHIS and improve access has opted to implement the capitation model hence, the pilot project in the Ashanti region.

#### **2.6.1 Fee for Service (FFS)**

This payment model (FFS) rewards service providers on the basis of items of services provided. The physicians' revenue is proportional to the quantity of health care

services rendered, motivating the physician in performing relatively higher quantity of health care activities because the financial risks of the model sits with the patients. The model is perceived to promote and focus on patient's satisfaction and patient's retention since there is motivation to perform not just high quantity but high quality to attract demand or utilization, this assertion has also been confirmed Forsberg et al (2001). Again, an American study conducted by Sorbero et al (2003), confirmed this assertion by claiming that, 36% of patients are more likely to shift from capitation-based providers to FFS-based providers if alternatives are presented with specific refers to patients who have contracted chronic diseases.

However, Davlin and Sarma (2008) conceived that the FFS payment system has the tendency to increase health care expenditure because of its intended incentives to increase quantity of health care provided by service providers and higher administrative costs. The model fundamentally, is flexible, autonomy, and offers an entrepreneurial opportunity because it treats individual patients equally by creating equal incentives to accept high cost and/ or low cost patients which are a defeat factor under the capitation payment system. Wranik et al (2011), considered the appropriateness of the quantity of health care provided by the physicians under FFS, he admitted that this could be natural or influence by the provider which he termed „supplier induced demand“ (SID). Milne et al, Reschovsky et al (2003, 2006), cited that appropriateness of health care is not induced by physician payment system. However, (Hadley et al, Nassiri et al 2006), have contrary view and demonstrated that there is a risk of SID when compensation is tied to activities provided. Health

institutions can control health care expenditures under the FFS by putting in place measures like wait-lists or other rationing methods.

The Fee for- Service system expected service providers' actions and contacts to be separately identified since the price of drugs and other items sell at the hospital determined the activities that are not on the list. (Jegers et al, 2002). This is largely a variable system since service providers increase their income by offering more effective and efficient services to patients. Fee For Service consist of two major benefits: first and foremost individual access effective and better health care is guaranteed and provision of the best health care for affordable cost which patients can pay to the service providers (Jegers et al, 2002). Nevertheless, negative consequences are possible as providers may offer more services to patients and this can create problems such more patients using the facilities of the hospital, supplier induced demand due " " to providers information power (Donaldson and Gerard, 1993; Glass et al 1999). Prices are prospectively determined for each service e.g. drugs, diagnosis, etc and are paid for after the service. Austin et al 2012 assert that, as costs of job-based traditional indemnity health insurance contracts, also known as traditional fee-for-service or conventional insurance, increased in the late 1980s and early 1990s, employers sought less costly alternatives.

They also stated in a fee-for-service model, the financial risks are directly on the patients than the service providers. Fee for service payment is based on the level of activity. Physicians are paid a fee for every unit of care they deliver (e.g. visits, treatments, lab tests) according to a fixed price schedule. In this system financial risk

is borne by the payer (patient, state or insurer). (Ellis and McGuire (1986)) stated that, since the payment is linked to output this system is thought to incentivise excessive use of services and increased costs. Service providers are incentivised to increase the volume of their activities and also attract more patients, work longer hours and focus on the fee paying services in order to maximise income. Evans (1974) revealed that, given the asymmetry of information between physicians and patients it is also possible that under this system physicians exploit their informational advantage to encourage over-consumption of treatments beyond the necessary.

This model is known as supplier-induced demand. Further, service providers may also reduce the number of referrals to specialists as they have an incentive to provide more services themselves. Physicians also have limited incentives to promote preventive activities, as a healthier population would reduce future revenues, unless preventive interventions are specifically paid for. At the same time FFS is a system that can incentivise physicians to increase their productivity in order to manage their time efficiently and rewards the more productive physicians when patients can choose between physicians.

The Ghana Statistical Services (GSS 2002) in 2000 recorded that just about 44% of patients accessed health care at the various facilities however, the remaining failed to visit hospital because of the barriers that fee-for-service presents. Since April 1, 2008 a Ghana Diagnostics Related Group (G-DRG) system has been in effect. Originally, providers were reimbursed on a fee-for- service basis.



### **2.5.2 The Ghana Diagnostics Related Group system**

Many researchers assert that, Diagnostics Related Group (G-DRG) rewards physician on a stable payment “per period of time” basically on salary mode. This means that, reward is not relying on the quantity of health care activities, provided or the quantity of patients who accessed health care. The payment model does not only allow for a stable income basis for physicians, but also offers the stimulus to lessen quantity of care. From the management perspective, salaries are an exceptional method for employee and are likely to motivate physicians to work in jurisdictions where population is low or regions where there are insufficient physicians, however, Wranik (2011), indicated that Fee for- service or capitation-based systems would inadequately reward physician labours. The followers of this model suggested that this model has the propensity to improve quality of service by increasing disease prevention, health promotion, and professional cooperation.

A United Kingdom (UK) study by Gosden et al (2003) did a comparative study on Diagnostics Related Group of primary care physicians (PCPs) and compared it to FFS or capitation based. The results demonstrated that salaried PCPs had lesser patient lists, provided shorter consultations, prescribed less, and spent less time on administration. The research established that, in salaried practices, quality was rated higher in seven out of thirteen clinical aspects compared to only two aspects for FFS/capitation practices Gosden et al (2003). However, this assertion have been disapproved by two North American studies finding no difference in preventative care practices or self-help promotion between salaried and FFS physicians (Hibbard et al 2001, Gillett et al 2001), they indicated that salary payment methods are believed to control costs by reduced supplier induced. It is believed that, this model has the propensity to reduce

administrative cost but it has the risk of reducing outputs by delivering below expectations. Langenbrunner et al (2009) revealed that, the countries with high incomes have moved to DRG base payment of health care to aid patient to have quality and affordable health service from the service providers.

The researcher also assert that, the main reason for introducing the DRG base payment was to increase health care effectiveness or better health care and cost containment. In line with above, Street et al (2011) confirmed with the Langenbrunner et al (2009) that Europeans as well as countries with high-income level practice DRG base payment which generally have massive impact on the health care delivery by making health service effective and affordable to individuals. The findings of the research suggest that the introduction of DRGs has helped the hospital to increase efficiency by reducing the number of days patients stay with the hospital as well the increase the hospital attendance volume.

It is understood that the DRG based payment system were changed into reimbursement mechanism, the main reason for the change was to enhance the performance of the service providers as cited in (Mark et al 2007, Kobel et al 2007, Blangenbrunner et al 2009 ) Kobel et al (2007) stated that another name for DRGbased payment systems is “case-based” or “case-mix-based”, however DRG-based as well as the case-mix-based payment systems are different from each other. All though, the case base or the case-mixed base and the DRG based payment have peculiar connections between them but they are separated from each other.

Now most of the service providers use DRG based payment system to cater for their patients, this is in connections with the National health insurance scheme in Ghana. In Ghana, out of the ten regions, only one region uses capitation payment system, the remaining nine regions use fee for service and DRG based payment to cater for their patients. Most of the countries practicing DRG based payment system are widely different in terms of gross domestic product and total health expenditure per capita. In the case of high- come countries, DRG based payment system were introduce to reduce cost as well as increasing effectiveness and efficiency as well as bringing improvement in health care delivery.

The ability of the service providers to increase efficiency and health care quality were the main reason why some European countries employed DRG based payment system. The economic development of every nation depends on effective labour force, and if individual citizens are healthy the result would be healthy economy. The rationale behind adopting DRG based payment system is to increase efficiency as well proving quality health care for individual in the country such as Estonia, Koppel et al (2008) and Kyrgyzstan, Kutzin et al (2002) Kutzin et al (2009) China, Yip et al (2010) Hungary Maylath (2000), The former Yugoslav Republic of Macedonia, Lazarevik (2011) Romania Vladescu et al (2008) stated, these countries believe that DRG payment system were introduced to increase efficiency and effectiveness in health care. They assert that, DRG payment system makes hospital activities more transparent to their suppliers and also meet the objective of the hospital especially in Poland Czach et al (2011) and Serbia. Djukić in China Yip et al (2010) and the Former Yugoslav Republic of Macedonia, DRG Work Group Macedonia (2010) assert that,

the purpose of introducing DRG-based payment systems was to ensure improvement in the health care quality. According to Vončina et al (2008), the researcher was a Croatian, DRG-based payment is used to reduce patients waiting list and also increase the number of cases at the hospital, these were the reasons why high-income countries prefer to use this kind of payment system.

The introduction of Ghana Diagnostic Related Groups (G-DRGs) as the basis for provider payments in the Ghana NHIS unpredictably caused claims costs to escalate significantly. The G-DRG basis, by creating a significant tariff difference between an ordinary malaria diagnosis and a complicated malaria diagnosis caused an increase in the cost of malaria treatment of almost 100%. As a result of the fact that malaria constitutes a significant proportion of all outpatient cases, this caused a 40% increase in the total cost of outpatient claims. This is a good example of “tariff creep” or upward billing whereby providers code diagnoses upward to obtain a higher reimbursement (Witter and Garshong, 2009).

Provider payment mechanisms that support the objectives of all the stakeholders in the delivery of affordable healthcare services can be a powerful tool in strengthening the sustainability of the benefits of the insurance products in HMI. After the introduction of the G-DRG payment system, the treatment cost escalated. Investigations subsequently showed that, for example, the G-DRG based treatment cost for malaria resulted in a sudden increase of up to 40% in outpatient costs of the scheme due to the fact that more malaria cases were treated as “complicated” rather than “uncomplicated” - the G-DRG categories. This illustrates that decisions on the provider payment



mechanisms to be employed need to be based on evidence and a thorough understanding of the effect of change in policy on the entire system (Seddoh et al, 2011).

## **2.7 The Concept of Satisfaction**

Merriam-Webster Dictionary defines Satisfaction as a feeling of happiness or content with something or something that makes a person happy, pleased, or content (<http://www.merriam-webster.com/dictionary/satisfaction>).

Customer satisfaction is a term frequently used in marketing and is often abbreviated as CSat. It is a measure of how products and services supplied by a company meet or surpass customer expectation. Alternatively, Customer satisfaction is defined as "the number of customers, or percentage of total customers, whose reported experience with a firm, its products, or its services (ratings) exceeds specified satisfaction goals. Customer satisfaction is not only seen as a key performance indicator within business in a competitive marketplace where businesses compete for customers but also key differentiator in developing business strategy, (<https://en.wikipedia.org/wiki/Satisfaction>).

Micah (2013), identified seven ways of satisfying patients. The researcher indicated that, Health Providers should strive to deliver service on the schedule of their patient, not just a schedule that happens to be convenient for the institution specifically, by avoiding unnecessarily long waits for lab results. The researcher believed this is not only an act disrespectful but cruel. Again, providers were advocated to take a relatively broader approach in dealing with patients“ by using efficient systems and

psychologically creating friendly atmosphere. He believed that, there should be a mutual respect between employers and employees in our health sector to avoid industrial unrest since this condition breeds high labour turnover and also, every single employee needs to know how to handle customer complaints and concerns. The researcher finally, caution providers to use clear and concise language and also uses a blame-free environment to improve transparency, improved systems, and, ultimately, to better results.

## **2.8 Capitation Payment System and satisfaction of service providers and subscribers' satisfaction**

(Tucker & Adams, 2001) opined that satisfaction of patients is linked with the ability of health service provider to interact with the patients to deal with their emotions. According to the researchers the factors contribute to the patient's satisfaction are caring, responsiveness of providers, empathy and dependability.

Fowdar (2005), also contribute to the patients satisfaction can be measured through factor such as core of the service provided, customization, professional credibility of the service provider, competence, the flow of communication between patient and the service provider. Satisfaction of patients is identified as understanding quality of care through both outcome and an indicator could be the first step.

Many researchers believe that patient's viewpoints should be the hallmark to evaluate health care quality (Boyer et al., 2006; Aditi, 2009; Sodani, 2010; Atinga; 2011).

(Dagger & Sweeney, 2006), opined that when patients are dissatisfied with the service of the service providers, possibly patient may follow the instructions for taking medications or may not read to go for follow up or discourage family members and friends from seeking health care services.

(Eiriz & Figueiredo, 2005), though, selected authors opined that patients who lack the ability to assess the technical aspect of care which often encompasses broader healthcare quality measures, such as financial performance, logistics and staff competence, Debono, (2009) These studies confirm the complexity of capturing patient satisfaction given the vast number of factors that affect individual satisfaction; and stress the error of using one measure or a group of variables to measure quality of care. On the other hand, the effectiveness and improvement in the health service quality is as a result of responds from patient satisfaction of health service survey (Debono, 2009).

Researcher such as Berwick, (1995); Gagné and Deci, (2005) noted that, paying a service providers all the claims encourage and give them intrinsic motivation and satisfaction to contribute their maximum best to ensure quality health care. , Eisenberger and Cameron, (2006), opposed to this idea by saying satisfying service provider does not bring on the potential significance effect on health care delivery particularly patients' satisfaction.

Furthermore, many researchers believe that, motivation among health service providers to substantial degree encourage them provide quality services to patients and the activity of professionalism Cassel et al (2012).

Many researchers believe that, capitation payment for service providers creates an incentive to control the cost of care. Some research assert the working within fixed payment per enrollee, capitated health plans either provider service themselves or purchase covered services from providers Chawla et al (2007), there is a strong relationship between subscribers and providers because patients in most cases receive care from the same physician. They asserted that, there is an optimal provision of service delivery in terms quantity since providers avoid over-treatment and unnecessary care, but they were quick to add that, patients who require complex treatments may be denied the access. They concluded that, capitation in administration wise is relatively cheaper and highly predictable because it ensures effective control over cost.

## **2.9 Patient Health outcomes or Health status**

According to Australia's New South Wales Department, a patient's health outcome is attributable to an intervention or series of interventions and is manifested by a change. The physicians' core mandate is to kill that sickness by restoring the sick to health as speedily as possible (Nightingale, Donabedian n.d). The researchers were of the view that, the outcome of the patient's health condition is the validation of the effectiveness and quality of medical care. Health outcomes basically describe the actual results or experiences gained as a result of a patient accessing health care. It measures the impact



health activities have on the patient's life and well-being and more importantly whether the patient will live or die. Health outcome focuses on whether a given ailments development is getting better or worse off, it relates to what result from what was done by the service provider to the patient (<http://myhealthoutcomes.com/fags/3000>). Thus, the experiences of the patient after ill health might consist of death, (mortality), an increase or a decrease of patient's symptoms, or ability (inability) of the patient to perform his daily undertakings is a benchmark to determine health outcome of a subscriber.

In developed world, technology has made it easier through data collection and monitoring of events to tie physician and the health facilities financial rewards to patients' health outcomes, though this model is receiving resistance from other stakeholders especially the physician however, research has shown that this model is achieving effective results Glickman et al (2013). American Medical Association (AMA), (2012) in their journal admonished health practitioners to develop best practices for health care delivery that can stand the modern health trends to improve health care outcomes, increase operational efficiency aiming at reducing care cost.

## **2.10 Nature of Health Care Delivery and Systems in Ghana**

Nature of health care delivery and systems in Ghana seeks to address the overview of the Ghana sector, common diseases in Ghana, challenges confronting health care delivery, empirical study on how patients' satisfaction are measured and conclusion.

### **2.10.1 Overview of Ghana health sector**

Ghana health sector operations have been decentralized where these two major institutions; ministry of health (MOH) and Ghana health service (GHS) are mandated by the Ghana's constitution to oversee the entire operational activities of the sector (Ansah, 2014). The researcher indicated that, the ministry of health (MOH) is in charge of the formulation of policies, monetary and evaluation of work progress in attaining the objectives of the sector whereas, the Ghana health service (GHS) which was established in 1996 is responsible for the service delivery of the sector by facilitating the decentralization concept by empowering the regional and districts health services. According to the World Bank report (2011), the establishment of GHS as a body become necessary when the health sector was recording a worsened performance in 1980s as a result of a decline economic performance in the late 1970s.

Abor et al, (2008) categorized the Ghana health delivery system into four which include public, private-for-profit, private-not-for-profit, traditional system and selfmedication system.

### **2.10.2 Common Diseases in Ghana**

World Resource Institution (2008) identified malaria, HIV/AIDS, diarrhoeal diseases, lower respiratory infections and perinatal conditions as the most five common diseases in Ghana and for that, 50% of deaths in Ghana is attributed to these diseases. The researchers further indicated that, 68% of deaths, of children below 14 years are claimed by these diseases but malaria claims most lives. According to the Integrated

Regional information Network (2005), about three million of Ghanaians access health care for malaria treatment in each year. Moreover, the Ministry Of Health indicated that Tuberculosis (TB) is among the six killer diseases and that 40% of AIDS deaths in Africa are attributed to TB (Ghanaian Chronicle, April 29 2008). Additionally, World Health Organization (WHO) report (2003) indicated that, they are cooperating with the various governments in Africa to integrate the traditional medicine into orthodox medicine because about 80% of Africans used the traditional medicine for primary health care.

### **2.10.3 Challenges of Health Care Delivery in Ghana**

Numerous authorities including the Ministry of Health acknowledge to the fact that, the health sector in Ghana is confronted with numerous challenges including inadequate infrastructure, absence of suitable logistics, equipment and facilities to affect effective service delivery. According to Otoo (2014), the sector lacks sufficient medical personnel and that doctor to patient ratio in Ghana was 1:15,259, 1:6000 for midwife and 1:1400 for nurses per year. Moreover, finances are another big challenge facing the health sector despite huge investments from the government, donor agencies and the privates" bodies. It is against this background that Khasem (2010) suggested alternative financing and the introduction of capitation payment

### **2.11 Selected Empirical Study on how Patients' Satisfaction are Measured**

The World Health Organisation (WHO) in 1948 definition of health was very comprehensive since it involves a state of complete physical, mental, and social wellbeing of the people and not limited to absence of diseases. According to Biomed Central Journal ( [http:// www.halo/content](http://www.halo/content)) physicians mostly narrow the focus and

concentrate on a medical model of health care and satisfaction are measured based on the values and the expectations of the provider and investor rather than the specific needs and expectations of the patients ( Anna, 2010, Calnan, 1988). The current satisfaction measurement adopts the patient-centred service model and other external variables where the entire service delivery focused on the patient in relation to the following dimension: (a) compassion, empathy, and responsiveness (b) co-ordination and integration (c) information, communication and education (d) physical comfort (e) emotional support, relieving fear and anxiety (institute of medicine 2001).

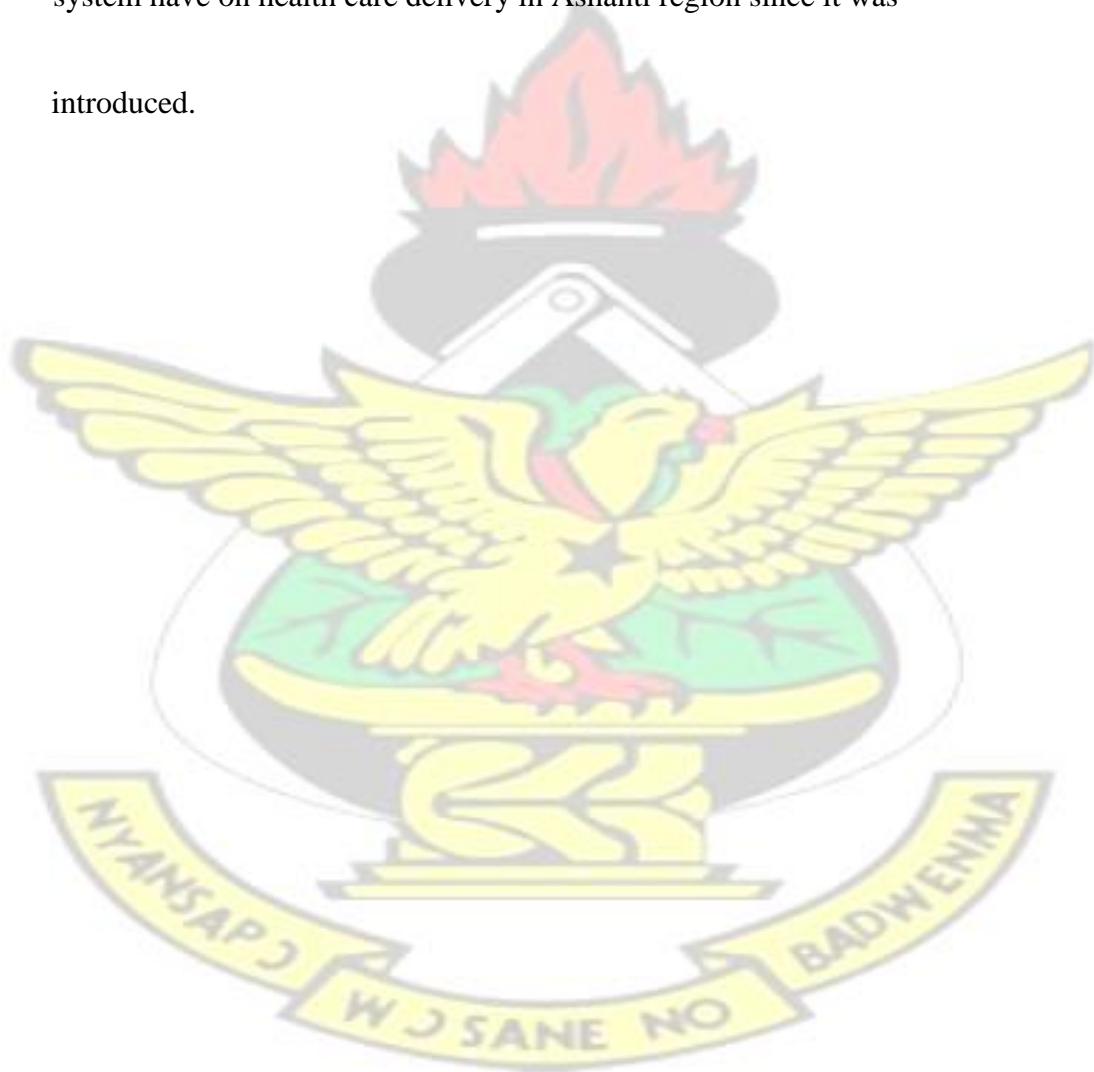
## **2.12 Conclusion**

Quimbo et al (2008) concluded, accreditation and payment of the insurance claims ensures positive effective on provision of quality health care. The researcher opined that, for a long term improvement to ensure health care quality, providers must be paid adequately for the service rendered to patients. The authors also asserted that, there should be direct evidence of effects on cost – effect use of the medicine and patients health care. The study conducted by Lee et al (2010), stated that, in Taiwan the National Health Insurance observed that pay-for – performance system improve outpatient health care and reduce the cost of inpatients service as well as the cost and the evidence of specific medicine to the patients were not provided.

Marque (2014) believes that capitation is prone to poor quality service delivery unless efficient and effective regulatory systems of quality control and audit link with a reliable information system are instituted. He strongly believed that, the implementation of these conditions would help achieve the benefits of controlling cost without limiting the needed care offered by the capitation. Under capitation payment system, defining quality becomes difficult debatable because it is subjective depending



on the stakeholder and objective at stake. A patient may define in relation to wait-list time, equity of access, care continuity, communication, bed and bedding issues or visit satisfaction, however, a physician would consider patients' outcomes, professional autonomy, or practice satisfaction, on the other hand, from the health system perspective, quality means an appropriateness of services provided and control of expenditure. However, this study seeks to find out the effects the capitation payment system have on health care delivery in Ashanti region since it was introduced.



## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter deals with the methods and techniques used in gathering data for the study. It discusses the research design, the population sample and sampling technique, instrumentation, data collection procedure and methods of data analysis.

#### **3.2 Research Design**

The study adopted Combines or mixes quantitative and qualitative research in the sense that, similar or a series of studies have used the same approach. According to Johnson, Onwuegbuzie, & Turner, 2007, this method is the third major research approach or paradigm and (Swanson & Holton, 2005) classified this method into four types, they called the first type, complementary, which combines the results and the second type, development, where the results from one method help develop or inform the other method. The researcher further called the third type, initiation, and under this stage, the researchers reorganize the results from one method to questions or results from the other method. Lastly, in the fourth type, they called it expansion, where researchers use different methods to extend the breadth or range of inquiry. The recent historical context of mixed methods research evolved from researchers and methodologists who believed in both qualitative and quantitative research methodologies for addressing their research questions (Johnson, et al., 2007).

### **3.3 Population Sample and Sampling Procedure**

Population refers to a group of units or elements to which a researcher is interested and intends to generalise the results of the research, Asamoah & Duodu (2006). In this case, the interested or the target population for the research comprised Patients, NHIS Staff and Service Providers in the National health Insurance Authority in Ashanti Region of Ghana. The region has twenty five (25) district offices and over 340,000 subscribers, 1000 worker and over 200 private and public hospitals. Among these a total of two hundred and fifty (250) respondents made up of one hundred (100) patients, fifty (50) NHIS officials and one hundred (100) staff of the service providers will be contacted for the study.

A sample, basically consist of a group of elements, or a single element, from which data are determined, Asamoah & Duodu (2006). According to the Marketing Research Society (MRS 2003), a sample is a part or subset of a population taken to be representative of the population as a whole for the investigate purposes of research. In all, Five NHIA districts were selected from the twenty – five district namely, Adum NHIA, Bantama NHIA, Dichemso NHIA, Mampong NHIA, and Ejisu NHIA, to obtain the sample size, the researcher used the „fishbowl draw“ method (Kumar, 1999,) of simple random sampling to pick the required number of five NHIS districts from which the number of patients, NHIA staff respondents and service providers were picked. Simple Random sampling was used to select the districts and number of respondents.

In the fishbowl draw, the researcher listed all the twenty – five [N-25) NHIA in the district on pieces of paper, put them in a bowl and mixed them together. The researcher

asked some of his colleagues to pick a strip of paper from the bowl at random until the required number was obtained.

Random selection implies that each member of the population as a whole or of subgroups of the population has an equal chance of being selected, Asamoah & Duodu (2006). And in a Simple Random sampling, the probability that an elementary unit of the universe will be selected at any given draw is the same as that at the first draw namely  $1/N$ , Asamoah & Duodu (2006).

(The table below shows the NHIS districts, patients, NHIS staff and service providers which were selected:

### **3.3.1 Justification of the Sample Size**

There is less variability in the population in terms of language, cultural values and the operational style of NHIA. According to Wilson, (2003), the more the degree of variability, the larger the sample size needed to make the population is representative. This necessitated the 20% sample size of the NHIA, (5/25) because the institution has a common operational style and culture. Wilson (2003) asserted that, sampling error tends to decrease at a rate equal to the square root of the relative increase in sample size. A sample increased by 100 per cent will improve accuracy by 10 per cent. The incident rate of the characteristics being researched in this case the Service Provides, Patients and the NHIA staff relatively has a common characteristics. In addition, the researcher anticipated high response rate because responses to the questionnaire were spontaneous. Moreover, budget was another constrained factor to contact everybody



in the population of interest. Again, this academic study is subject to time, in a sense that, the larger the sample size, the longer it takes to gather data and complete the analysis. Another necessitated factor is the nature of the study; it is believed that, everybody is a patient and most of them are NHIS subscribers who have experienced health care delivery before therefore, there is no or little sub-sample in terms of service encounter to ensure statistical reliability hence, the 250 sample size would ensure statistical reliability and representative of the entire population.

**Table 3.1: Sample of NHIS staff, patients and service providers**

NHIS districts	NHIS staff	Patients	Service providers
Adum NHIS	10	20	20
Bantama NHIS	10	20	20
Dichemso NHIS	10	20	20
Mampong NHIS	10	20	20
Ejisu NHIS	10	20	20
Total	50	100	100

Source: Researcher's Construct. May, 2015

From table 1 the researcher selected two hundred and fifty (250) respondents from five National Health Insurance Scheme (NHIS) districts in Ashanti region. The researcher selected ten (10) from each NHIS district of office, twenty (20) patients and service provider from each selected NHIS district.

### **3.4 Sources of Data Collection**

The data collected for the study comprised primary data. The type of data, their sources and the instruments used in gathering them are discussed as follows:

#### **3.4.1 Primary Data**

Data observed or collected directly from first-hand experience. Primary data are information collected by a researcher specifically for a research assignment. In other words, primary data are information that a company must gather because no one has compiled and published the information in a forum accessible to the public. National health insurance scheme (NHIS) generally take the time and allocate the resources required to gather primary data only when a question, issue or problem presents itself that is sufficiently important or unique that it warrants the expenditure necessary to gather the primary data.

Primary data are original in nature and directly related to the issue or problem and current data. Primary data are the data which the researcher collects through various methods like interviews, surveys, questionnaires etc. The primary data collected from NHIS staff, patients, and service providers for the purpose of this study.

Primary data is made up of new materials collected by the researcher for the purpose of the study. The primary data which served as the source of data for this study was obtained by the use of questionnaire.

### **3.5 Instrumentation**

The structured questionnaire was used for data collection. A set of questionnaires was designed – for NHIS staff, patients and the service providers. It was made up of twenty five (25) items for 250 respondents.

Saunders et al. (2003) state that the validity and the reliability of the data you collect, as well as the response rate you achieve, depend, to a large extent, on the design and the structure of your questionnaire. In this study, the questionnaire design is approached in two ways: First, adopt questions used in other questionnaires; second, develop questions by the researcher.

A structured questionnaire was designed and administered in the form of interviews and self-reporting responses. Questionnaire was the main instrument used in collecting data for the study. The questionnaires were administered to the respondents and were made up of both closed ended and open ended questions. These gave flexibility to respondents to answer the questions at their own time and convenience. Respondents who required further explanations were guided in completing the questionnaires. The questionnaire was made to collect demographic data and information related to the research objectives. The questionnaire sheet was short in order to encourage participation, ensuring that it would not take more than 57 minutes to answer. The questionnaire included a paragraph explaining the purpose of the study.

The structured questionnaire was used for data collection. A set of questionnaires was designed – for NHIS staff, patients and the service providers. It was made up of twenty five (25) items for 250 respondents.

The questionnaires were divided into two parts. The first part was made up of demographic data about the respondents and the second on the general information about capitation such as problems associated with capitation payment, the method of payment to the service provider and the extent to which service providers are satisfied with methods of payment to improve health care delivery in the Ashanti region. Items in the questionnaires were framed in close ended fashion. It was a 5point Likert scale (1= Strongly Disagree, 2 = Disagree, 3 = Uncertain, 4= Agree, and 5 = Strongly Agree) in which higher score indicate more perceived positive responses.

### **3.6 Pilot Test**

The instrument was pilot-test on ten NHIS staff, fifteen Patients and fourteen staff of Service Providers in the Ashanti region. This was to establish the reliability of the research instrument. Reliability is the ability of an instrument to consistently measure what it is supposed to measure (Alhassan, 2000). The result yielded a coefficient of 0.84.

The result became feasible after the researcher had given the instrument to colleagues in school of business at the Kwame Nkrumah university of Science and Technology, Kumasi, to ascertain the face and content validities of the items. Alhassan (2000) defines validity as the degree to which a test actually measures what it claims to measure. Face validity is the ability of each test items to establish a logical link with



an objective (Kumar, 1999). Content validity is the extent to which statements or questions represent the issue they are supposed to measure (Kumar, 1999).

### **3.7 Data Collection Procedure**

With a letter of introduction from the Head of Department of School of Business, the researcher asked for permission and solicited the support and co-operation of the individuals and other heads of the selected institutions. The questionnaire was distributed to the NHIS staff, patients and service providers identified capitation and they were briefed on what was expected of them in responding to the questions. The completed questionnaire was collected on the same day on each occasion.

### **3.8 Data Analysis Procedure**

Responses obtained from the students were collected and collated. Frequency counts and percentages were used for analyzing the frequency data obtained on opinions expressed through responses to questionnaire by respondents. According to Pagano (1990), frequency counts and percentages are also employed by the researcher in analyzing frequency data. The Chi-square and regression was used in answering the research questions. The Chi-square is appropriate for analyzing frequency data involving two variables for relationship

## CHAPTER FOUR

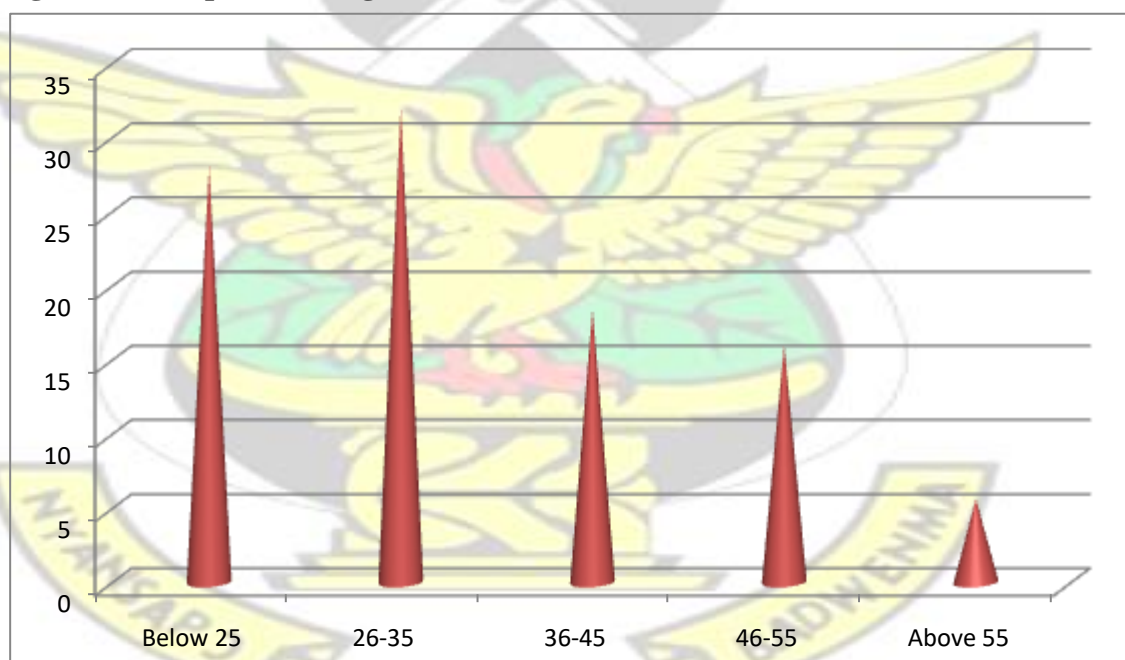
### DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

#### 4.1 Introduction

The chapter four analyzes data collected from respondents. A sample size of two hundred and fifty (250) respondents was chosen for the study made up of five districts namely Adum NHIS, Bantama NHIS, Dichemso NHIS, Mampong NHIS, and Ejisu NHIS, Tables, pie charts and histograms were used to present the data for the study.

#### 4.2 Demographic Characteristics of Respondents

**Figure 4.1 Respondents Age Distribution**



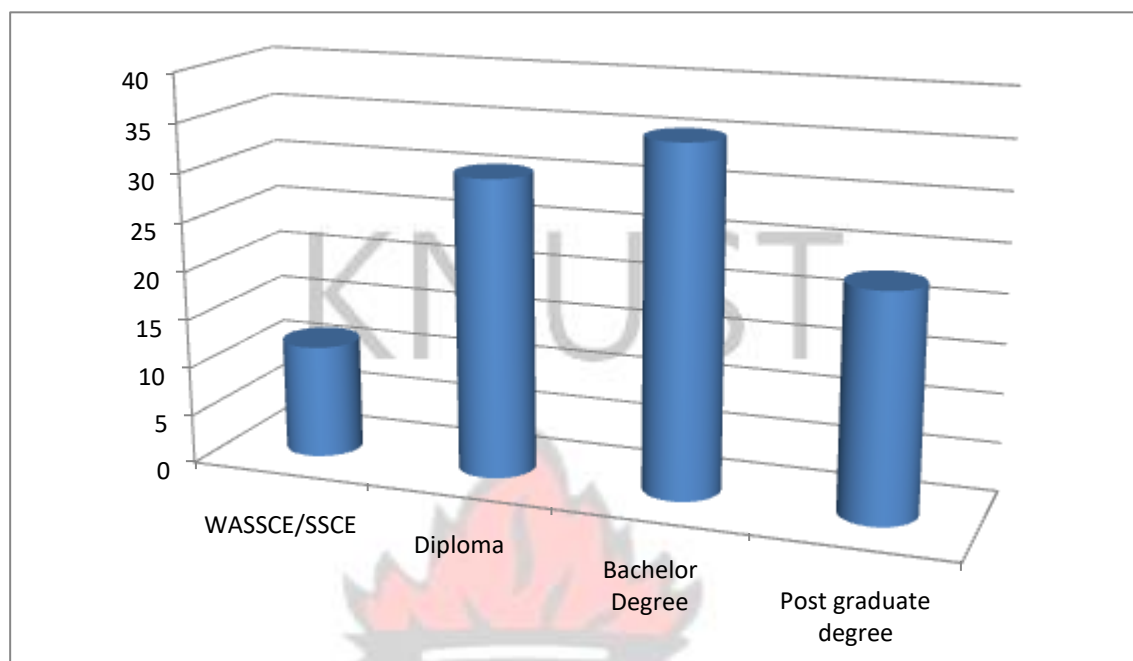
**Source: Field Survey, 2015**

Figure 4.2.1 above shows the age distribution of the individual respondents used for the study. This study indicates that 32% which represent the majority of the sample size were aged between 26 to 35 years and 28% aged below 25 years. 18.4 % were

aged between 36 to 45 years , 16% were aged between 46 to 55 ears and the remaining 5.6 % were aged 50 years and above in line with this finding is the study conducted by Witter et al (2009) revealed that, people above 70 years were exempted from paying the NHIS premium and people aged 18years with both parents were registered as members of the scheme. the study conducted by Witter et al (2009) revealed that, people above 70 years were exempted from paying the NHIS premium and people aged 18years with both parents were registered as members of the scheme. This revelation indicates that, the active labour force in Ashanti region is the major subscribers of NHIS and therefore has the economic means to pay for the premium. Again, the findings support the 2010 population census that, majority of the population in the Ashanti region is now within the threshold of twenties who are still in school and therefore know the usefulness of the NHIS.



**Figure 4.2 Academic Qualifications of Respondents**



**Source: Field Survey, 2015**

Figure 4.2.2 above shows academic qualification of respondents used for study including NHIS staff, service providers as well the contributors. The study shows that most individuals who responded to the questionnaire representing (35.2%) have had some form of Bachelor degree, 30.4% have had higher Diploma, 22.8% have had post graduate education and the remaining 11.6% have had only Senior High school education. The findings are indication that, those who have higher education has the tendency to subscriber for the services this is because they may not only have the economic power but also appreciate the economic importance of the scheme. Additional, most of them may be in active service or in the formal sector that are already paying for the NHIS tax as a result, the cost for accessing the scheme is relatively lower encouraging them to subscribe for the services.



**Table 4.1 Respondents years with the NHIS**

	Frequency	Percent (%)
Valid 2 years and below	28	11.2
3-5	30	12.0
6-8	36	14.4
9-10	79	31.6
11 and above	77	30.8
Total	250	100.0

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**Source: Field Survey, 2015**

Table 2 above demonstrates the distributions of respondents based on their durations with National Health Insurance Scheme (NHIS). The study revealed that 31.6% of the study population have been with the scheme for periods between nine to ten years, 30.8% have been with the scheme for eleven and above years, 14.4% have been with the for six to eight years whilst 12% have stayed with the scheme for three to years and 11.2% have been with the scheme for two years and above. This finding shows that the study respondents have enough experience to respond to the questionnaire instruments concerning the capitation pilot issues.

### 4.3 Ingredients of the capitation system

**Table 4.2: Main components of capitation**

No	Main components of capitation	SD%	D%	U%	A%	SA%
1	Package of primary care services	2.8	9	13.1	35.2	40
2	Base per capital rate of 0.99 GH¢ in January and increased to 1.30 per member per month in April 20129 (15.60 GH¢ PMPA).	5.5	9	13.8	38.6	33.1
3	Enrolment of clients to Preferred Primary Providers(PPP)	5.5	8.3	9.7	40	36.6
4	General and financial management and reporting systems (Common management Arrangement)	6.2	6.2	13.1	39.3	35.2
5	Quality monitoring system	4.8	7.6	9	36.	42.1

N= 250, SA= Strongly Disagree; A= disagree, U= uncertain; A= agree; SA= strongly agree

Table shows 3 responses to the questionnaire instrument on the ingredients of the capitation system. As indicated in item 1 of table 3, the respondents asked whether Package of primary care services was the component of capitation system. The study shows that 40% of respondents strongly agree that Package of primary care services. About 35.2% agree and 13.1% were uncertain. However, a significant of 9 % disagrees whilst a further 2.8 % strongly disagrees.

As indicated in item 2 of table 3, the respondents asked whether Base per capital rate of 0.99 GH¢ in January and increased to 1.30 per member per month in April 2012 (15.60 GH¢ PMPA). The study shows that 38.6 % of respondents agree that Base per capital rate of 0.99 GH¢ in January and increased to 1.30 per member per month in April 2012 (15.60 GH¢ PMPA). About 33.1% strongly agree and a significantly 13.8% were uncertain. However, a significant of 9% disagrees and the remaining 5.5% were strongly agreed.

As indicated in item 3 of table 3, the respondents asked whether Enrolment of clients to Preferred Primary Providers (PPP). The study shows that 40% of respondents agree that whether Enrolment of clients to Preferred Primary Providers (PPP). About 36.6% strongly agree and 9.7% are uncertain. However, 8.3% disagrees whilst a further 5.5% strongly disagrees.

As indicated in item 4 of table 3, the respondents asked whether General and financial management and reporting systems (Common management Arrangement). The study shows that 39.3% of respondents agree that General and financial management and reporting systems (Common management Arrangement). About 35.2% strongly agree and 13.1% are uncertain. However, 6.2% disagrees whilst a further 6.2% strongly disagrees.

As indicated in item 5 of table 3, the respondents asked Quality monitoring system.

The study shows that 42.1% of respondents strongly agree that whether Quality monitoring system. About 36.6% agree and 9% are uncertain. However, 7.6% disagrees whilst a further 4.8% strongly disagrees

**4.4 Challenges associated with capitation payment system in Ashanti region** The research question sought to know the challenges associated with capitation payment system in Ashanti region. The study identified various internal challenges associated with capitation payment system in Ashanti region such as financial sustainability of the capitation, identification of the poor in the informal sector of capitation, ID card management challenges and ICT Challenges of the capitation. To effectively examine the problems associated with capitation payment, variability and causes of internal challenges or problems were revealed, statistical mean and standard deviation test was conducted.

**Table 4.3: Descriptive Statistics of internal challenges of NHIS**



	N	Mean	Std. Error	Std. Deviation
	Statistic	Statistic		Statistic
ID card management challenges	250	3.88	.062	.977
Financial sustainability of the capitation	250	4.20	.056	.883
Identification of the poor in the informal sector of capitation	250	4.14	.071	1.121
ICT Challenges of the capitation	250	3.94	.069	1.085

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**Source: Field Survey, 2015**

Table 4 shows the responses to questionnaire items seeking to examine internal challenges or problems associated with capitation payment system in Ashanti region. , the study conducted the mean analysis to identify the central location of the data (average). Standard deviation on the other hand was conducted to measure variability and the spread of the data set and the relationship of the mean to the rest of the data. The study calculated the relation of the standard deviation to the mean, otherwise known as the coefficient of variation (CV). The study showed that the coefficient of variation was rather small, indicating that the data has a greater deal of uniformity with respect to the mean and there is a general consensus among the sample respondents. The study demonstrates that, the means of the various variables under financial sustainability of the capitation are statistically significantly different from one another

indicating that each variable has different problems associated with capitation payment system in Ashanti region.

**Table 4.4: Descriptive Statistics of external challenges of NHIS**

	N	Mean	Std. Error	Std. Deviation
Statistic	Statistic	Statistic	Statistic	Statistic
Moral hazard (Both demand & supply side)	250	3.90	.071	1.115
Pharmaceutical supply chain challenges – High cost of drugs	250	3.82	.075	1.189
Ability to pay premium/Renewal Challenges	250	3.88	.062	.977
Quality of care challenges	250	4.20	.056	.883
Waiting times	250	4.14	.071	1.121
Wrong application of Tariffs	250	3.94	.069	1.085
Irrational Prescription of medicines	250	3.90	.071	1.115
Inflation of quantities of medicine supplied	250	3.82	.075	1.189
Unauthorized co-payment	250	3.88	.062	.977
Provision of services above accreditation level	250	4.20	.056	.883
Patient folder retrieval challenges	250	4.14	.071	1.121
Overbilling of medicines	250	3.94	.069	1.085

**Source: Field Survey, 2015**

The study seeks to examine external challenges or problems associated with capitation payment system in Ashanti region. The study analyzed the mean and standard deviation of the variables used under external challenges or problems associated with capitation payment system. The test was meant to identify whether the mean for one variable and that of another variable differ or not. . As shown on table 5 the means of the various variables under external problems associated with capitation payment system in Ashanti region are statistically significantly different from one another.

**Table 4.5: NHIS method of payment to healthcare providers**

				Cumulative	
		Frequency	Percent	Valid Percent	Percent
Valid	Fee for Service	25	10.0	10.0	10.0
	The Ghana DRG system	23	9.2	9.2	19.2
	Capitation (Pilot state)	202	80.8	80.8	100.0
	Total	250	100.0	100.0	

**Source: Field Survey, 2015**

Table 6 shows responses to the questionnaire instrument on which of the following is the NHIS method of payment to healthcare providers Ashanti region. The study shows that 80.8% of respondents state capitation pilot state was the main method of payment to the health care providers. 10% were fee for service and the remaining

9.2% were the Ghana DRG system.

**Table 4.6: Understand the term Capitation**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	109	43.6	43.6	43.6
	No	141	56.4	56.4	100.0
	Total	250	100.0	100.0	

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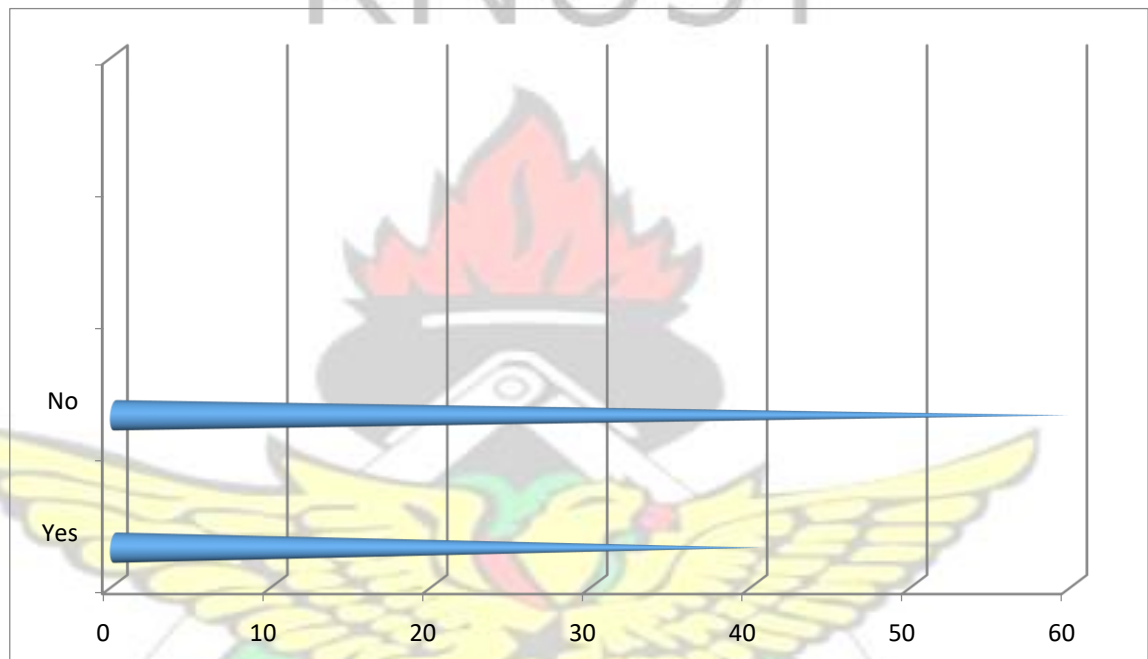
**Source: Field Survey, 2015**

Table 7 responses to the questionnaire instrument on do you really understand the term capitation. The study shows that 56.4% of respondents which indicate majority of the respondents do not understanding the term capitation. 43.6 % were yes which shows that few people or the respondents understand the term capitation. This revelation attest to Wanjun et al 2012 and Adu & Serebour (2014) that, people have little or no knowledge of the system and no feedback mechanism in place indicating where specifically a subscriber is engaged out of the three choices. It further does not support the Institute of Medicine (2001) on patient-centered satisfaction model that patients need to educate to ensure satisfaction.



#### 4.5 Satisfaction level of patients and service providers under the capitation payment system

**Figure 4.3 Service Providers satisfaction with the mode of payment for Health care Services**



**Source: Field Survey, 2015**

Figure 4.5.3 responses to the questionnaire instrument on whether service providers are satisfied with the mode of payment. The study shows that 59.6% of respondents said no which means, Service providers are not satisfaction with the mode of payment with healthcare services. 40.4% said yes indicating that Service providers were satisfaction with the mode of payment the healthcare services. The findings show that majority which is more than half of the service providers were not satisfied with the mode of payment for the healthcare services. The findings support Miller

(2007) asserted that capitation payment method seldom fail to pay enough money to the service providers to enhance health care delivery. Additionally, inadequate payment to service providers for healthcare delivery discourages service providers to give their maximum best in the health care delivery. Miller (2007) continues to argue that, individual contributors of the national health insurance scheme are not motivated enough to pay more for the best health care and the situation is affecting the effectiveness and the survival of the national health insurance scheme. This revelation is in contrast with the NHIA strong position to avoid present problem of delay in payment of claim to the service providers.

**Table 4.7: Multiple Regression of extent to which patients and service providers are satisfied with methods of payment to improve health care delivery in the Ashanti region**

Variables	B	Beta	R	R <sup>2</sup>	R <sup>2</sup> Adjusted	T	Sig.(t)
Step 1							
(Constant)	138.91					23.214	.001
Enhance early release of funds	4.57	.92				4.660	.001
Increment in the per capita payment which providers considered as woefully inadequate	3.28	.40				2.662	.049
Quality monitoring system of capitation	1.43	.63				.574	.501
			.852	.789	.749		

**N= 250, 1= Strongly Disagree; 2= disagree, 3= uncertain; 4= agree; 5= strongly agree**

Regression analysis using the multiple entries was performed using SPSS to assess the relative Enhance early release of funds, Increment in the per capita payment which providers considered as woefully inadequate and Quality monitoring system of capitation. In Table 8, displayed the unstandardized (b) and standardized (beta) regression coefficients, the multiple correlation coefficients (R), adjusted  $R^2$ , the value of t and its associated p-value for each variable that entered into the equation. As shown in Table 9, the extent to which service providers are satisfied with methods of payment to improve health care delivery in the Ashanti region collectively explained about 75% (adjusted  $R^2= 0.749$ ) of the variance. Based on the order of entry chosen for the present sample, it appears Enhance early release of funds ( $\beta= 0.92$ ;  $t= 4.66$ ;  $p< 0.001$ ), Increment in the per capita payment which providers considered as woefully inadequate ( $\beta= 0.56$ ;  $t= 3.87$ ;  $p<0.002$ ) and Quality monitoring system of capitation ( $\beta= 0.40$ ;  $t= 2.66$ ;  $p<0.049$ ) explained the bulk of the variance in improvement of health care delivery in the Ashanti region. Moreover, early release of funds to providers and increase in per capita payment is significant and therefore affect health care delivery in Ashanti region. However, Quality monitoring system of capitation statistically speaking was not relatively significant.

#### **4.6 The nature of healthcare delivery in Ashanti region**

Research question four sought to determine the nature of healthcare delivery in Ashanti region. In determining the nature of healthcare delivery in Ashanti region, the study sought to determine Categories of healthcare delivery in the Ashanti region.

**Table 4.8: Private – for – profit**

		Frequency		Valid	Cumulative
		Percent		Percent	Percent
Valid	strongly disagree	16	6.4	6.4	6.4
	Disagree	15	6.0	6.0	12.4
	Uncertain	32	12.8	12.8	25.2
	Agree	103	41.2	41.2	66.4
	strongly agree	84	33.6	33.6	100.0
	Total	250	100.0	100.0	

**Source: Field Survey, 2015**

Table 9 responses to the questionnaire instrument on whether Private – for – profit was a category of Categories of healthcare delivery in the Ashanti region. . The study shows that 41.2% of respondents agree that Private – for – profit was a category of Categories of healthcare delivery in the Ashanti region. 33.6% strongly agree and 12.8% were uncertain. However, 6% disagrees whilst a further 6.4% strongly disagrees. The findings show that there were some private hospitals that objective were to maximize profit and therefore may concentrate on services that reward or may decide under supply as indicated by some authorities.



**Table 4.9: Private – not for – profit**

		Valid		Cumulative
		Percent		Percent
		Frequency	Percent	
Valid	strongly disagree	21	8.4	8.4
	Disagree	14	5.6	14.0
	Uncertain	36	14.4	28.4
	Agree	97	38.8	67.2
	strongly agree	82	32.8	100.0
	Total	250	100.0	100.0

**Source: Field Survey, 2015**

Table 10 responses to the questionnaire instrument on Private – not for – profit was a category of Categories of healthcare delivery in the Ashanti region. The study shows that 38.8% of respondents agree that Private – not for – profit was a category of Categories of healthcare delivery in the Ashanti region. 32.8% strongly agree and 14.4% responded uncertain. However, 5.6 % disagrees whilst a further 8.4% strongly disagrees however, these providers may include the mission clinics and hospitals.

**Table 4.10: Public health care**

		Percen Valid		Cumulative
		t	Percent	Percent
		Frequency		
Valid	strongly disagree	12	4.8	4.8
	Disagree	20	8.0	12.8
	Uncertain	26	10.4	23.2
	Agree	90	36.0	59.2
	strongly agree	102	40.8	100.0
	Total	250	100.0	100.0

**Source: Field Survey, 2015**

Table 11 shows responses to the questionnaire instrument on public healthcare was a category of Categories of healthcare delivery in the Ashanti region. The study shows that 40.8% of respondents strongly agree that public healthcare was a category of Categories of healthcare delivery in the Ashanti region. 36% agree and 10.4% are uncertain. However, 8% disagrees whilst a further 4.8% strongly disagrees. The finding demonstrates that, majority of the respondents do accept public healthcare as the main category of healthcare delivery in the Ashanti region and therefore evenly spread in the region. This is an indication that, most of the public facilities are having become referral centres under the capitation payment system.

**Table 4.11: Self – medication system**

		Frequency	Valid Percent	Valid	Cumulative Percent
Valid	strongly disagree	7	2.8	2.8	2.8
	Disagree	21	8.4	8.4	11.2
	Uncertain	48	19.2	19.2	30.4
	Agree	82	32.8	32.8	63.2
	strongly agree	92	36.8	36.8	100.0
	Total	250	100.0	100.0	

**Source: Field Survey, 2015**

Table 12 responses to the questionnaire instrument on self – medication system was a category of Categories of healthcare delivery in the Ashanti region. The study shows that 36.8% of respondents strongly agree that on self – medication system was a category of Categories of healthcare delivery in the Ashanti region. 32.8% agree and 19.2% were significantly uncertain. However, 8.4% disagrees whilst a further 2.8% strongly disagrees.

Concerning the category of Categories of healthcare delivery in the Ashanti region Abor et al, (2008) categorized the Ghana health delivery system into four which include public, private-for-profit, private-not-for-profit, traditional system and

selfmedication system. The finding is an inference that, most people either do not have confidence in our physicians at the various health facilities or spend much time in the course of accessing health care with no positive impacts hence, the decision to adapt to self-medication.

**Table 4.12: Which of these do you always go for medical check up**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Private – for – profit	31	12.4	12.4	12.4
	private – not for – profit	28	11.2	11.2	23.6
	Public healthcare	149	59.6	59.6	83.2
	self -medication system	42	16.8	16.8	100.0
	Total	250	100.0	100.0	

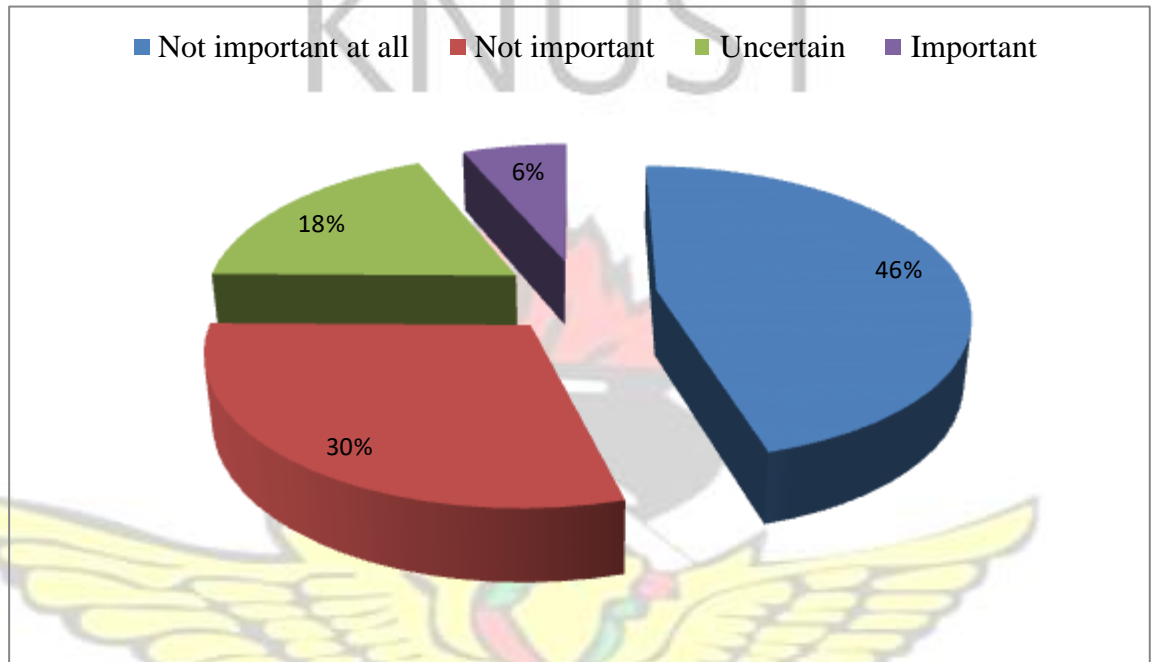
**Source: Field Survey, 2015**

Table 13 shows responses to the questionnaire instrument on which of these do you always go for medical check up. The study shows that 59.6% of respondents representing the majority stated that, they always go to public healthcare for medical check-up, 16.8% used self – medication and 12.4% go for checkup at Private – for – profit. However, the remaining 11.2% were private – not for – profit. The follow-up question was asked as to which of the categories of the healthcare delivery they were satisfied with. The study shows that majority representing 90% of the respondents said they were satisfied with the public healthcare or hospital.



#### 4.6 The effects of Capitation on health care delivery in Ashanti Region

**Figure 4.4 importance of Capitation to both NHIA and Service Provider**



Source: Field Survey, 2015

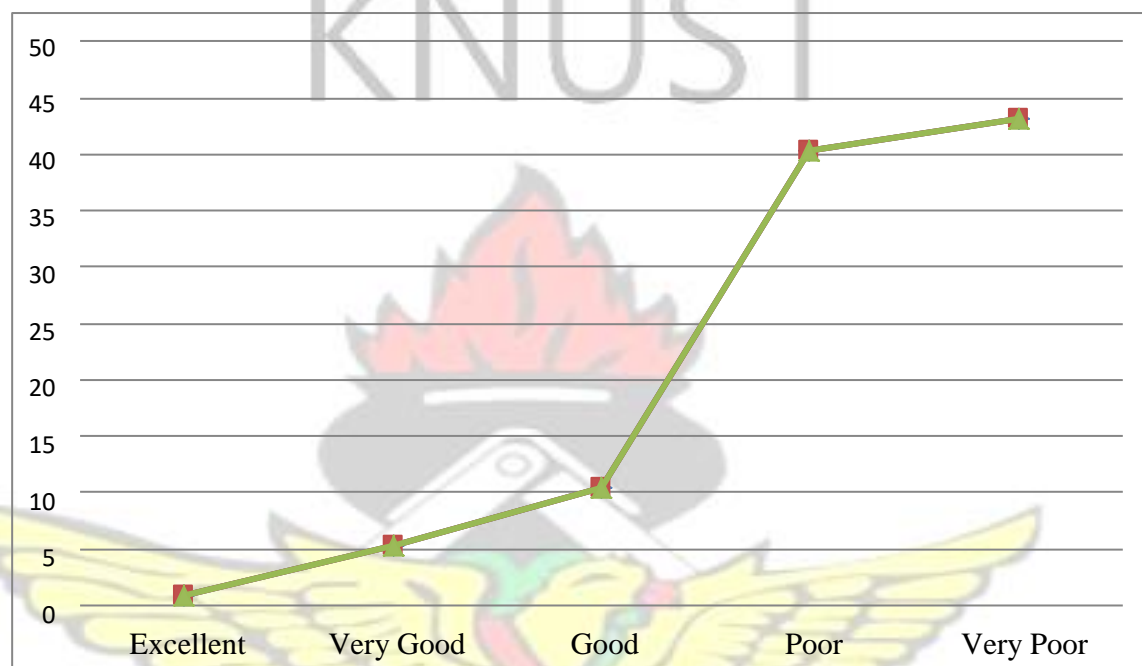
##### **Importance of capitation**

In line with the research question how important is capitation payment system to NHIS as well as the service provider and the patient. Evidence from Figure 4.3 indicates that majority represent 46% stated that capitation is not important at all. 30% said Nation Health Insurance capitation pilot program were not important to them. 18% were uncertain and only 6% expresses the importance of capitation. The research finding shows that majority of the responds 76% stated that NHIS capitation pilot in the region was not important at all. This finding is line with Battista (1983),

Proponents of capitation argue that it controls costs by eliminating the incentive for

SID and increasing disease prevention and health promotion.  
The evidence suggests that capitation reduces quantity of care provided, and this may ultimately reduce overall health care expenditure.

**Figure 4.5: Education of the capitation pilot in Ashanti region**

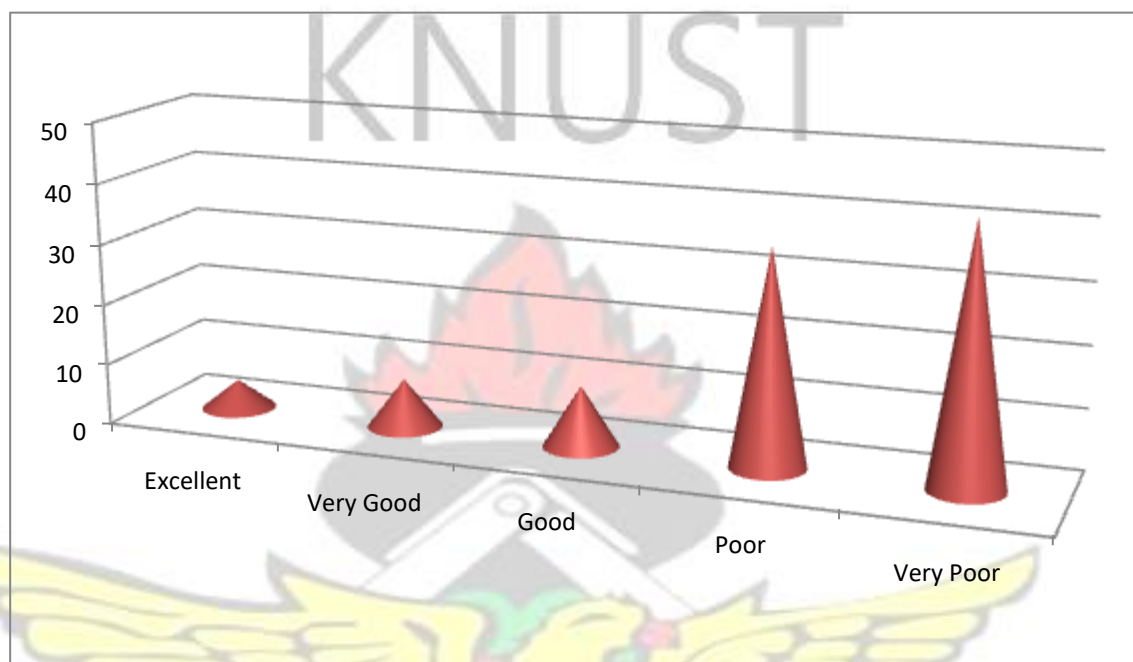


**Source: Field Survey, 2015**

In line with the research question, how would you rate the education of the capitation pilot in Ashanti region? Figure 4.4 indicate that respondents were not satisfied about how NHIA have educated people concerning the capitation pilot program. The study shows that 76% representing the majority responded that education on capitation pilot to general public was poor as well as very poor. 10.4 % said it was good, 5.2% claimed it was very good and the remaining 0.8% responded excellent. This finding is in consonant with the NHIA annual report 2012 which suggested that, Service providers as well as the patients and the general public need to be educated, to have fair idea or understanding of capitation payment mechanisms however, little has been done as an

institution to educate the public about the operations and usefulness of capitation payment system.

**Figure 4.6: The relationship between service provider and NHIS**

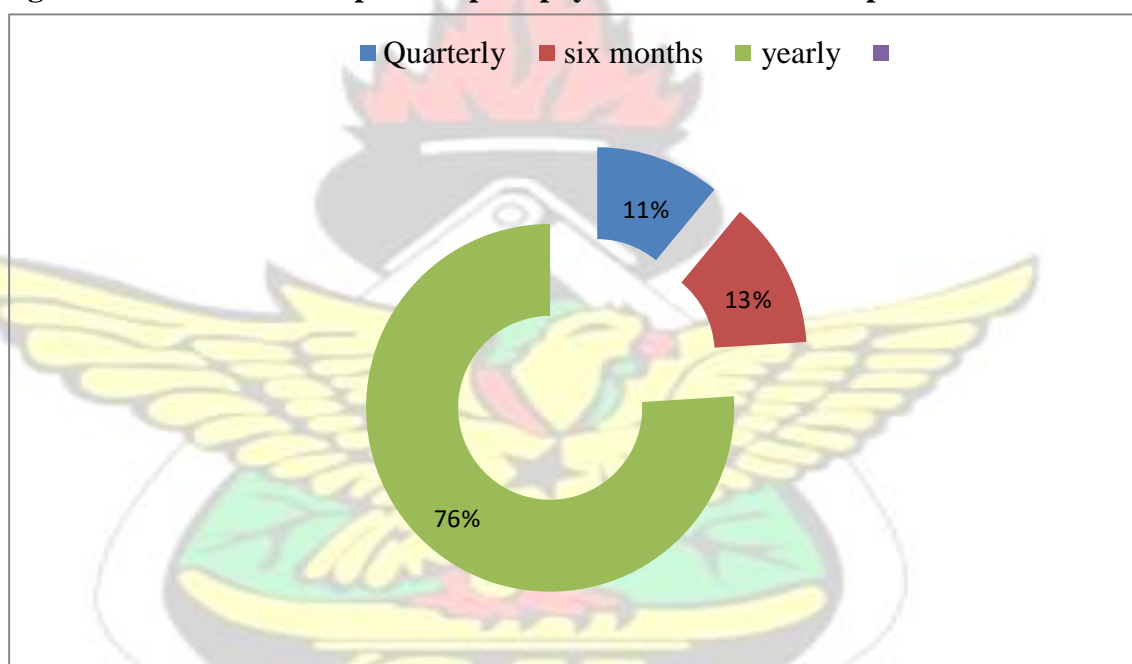


**Source: Field Survey, 2015**

The research question seeks to know the relationship between service provider and NHIS. The evidence in figure 4.5 demonstrates how the study population reacted to the questionnaire. The finding shows that 42. % said that, the relationship between National Health Insurance scheme (NHIS) and the service providers were very poor. 35.2 % said the relationship between them were poor, 10% responded that, the relationship between them is good. The remaining the relationship between service provider and NHIS 8 % and 4.8 % responded that, the relationship that exist between the National Health Insurance scheme (NHIS) and the service provider are Very good and excellent respectively. The finding indication that there were not cordial

relationship between the National Health Insurance scheme (NHIS) and the service provider because the majority of the study population representing 77.2% said that, the relationship that exist between them was very poor. In line with this finding many researchers have contributed that, for National Health Insurance scheme (NHIS) to function effectively there must be some kind of good relation among the stakeholders which include the scheme and the service providers.

**Figure 4.7: Duration of capitation pilot payments to the service providers**



**Source: Field Survey, 2015**

The research question seeks to know how long does it take for NHIA to make payment to the service providers (health services). From figure 4.6 above the evidence was clearly seen that, the NHIA delays in releasing the funds to the service providers. The study shows that, 76% of the responds representing the majority of the service providers and NHIS staff said, the funds were release yearly, 13% admitted that they



received their funds in six month and remaining 11% received their funds in every three months or quarterly. This revelation supports the various researchers in the health sector that, funds are not release on time by the NHIA to service providers for their operations.

**Table 4.13: Subscribers understanding of the term capitation**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	100	40.0	40.0	40.0
	No	150	60.0	60.0	100.0
	Total	250	100.0	100.0	

**Source: Field Survey, 2015**

In line with the research question, do you really understand the term capitation? Table 15 indicate that majority of the respondents do not understand the term capitation. This was attested by the majority representing 150 (60%) responded no which means that, they were not familiar with the term capitation. The remaining 100 (40%) were yes which means that, few people are familiar with the term capitation. The findings show that, majority of the respondents need proper education on the term capitation for effective implementation as indicated by various authors including Baffour and Adu 2012.

**Table 4.14: The introduction of capitation in Ashanti region have improved health**

care		Cumulative			
		Frequency	Percent	Valid Percent	Percent
Valid	Yes	93	37.2	37.2	37.2
	No	157	62.8	62.8	100.0
	Total	250	100.0	100.0	

**Source: Field Survey, 2015**

The research question seeks to know whether the introduction of capitation in Ashanti region have improved health care. Table 16 indicates that the introduction of capitation in Ashanti region has not improved health care. The evidence in table 10 shows that 157 (62.8%) responded no because they have not witness any form of improvement since the introduction of the capitation in the region. The minority 93(37.2%) said yes, the findings show that significant majority do not see any improvement in healthcare in Ashanti region. The finding is in congruent with Adu & Serebour 2012 that, the health of the people in Ashanti region is under threat under the capitation payment system. Again, the result is an indication that, patients' needs are not considered before the capitation was introduced which is in contrast with the Institute of medicine (2001) on patient-centred approach of measuring patients' satisfaction however; it supports Anna (2010) that, some providers and investors consider their values and needs instead of the patients' needs.

**Table 4.15: The effectiveness of the capitation in the region**

				Cumulative	
		Frequency	Percent	Valid Percent	Percent
Valid	Excellent	43	17.2	17.2	17.2
	Very Good	73	29.2	29.2	46.4
	Good	81	32.4	32.4	78.8
	Poor	53	21.2	21.2	100.0
	Total	250	100.0	100.0	

**Source: Field Survey, 2015**

The research question seeks to know the effectiveness of the capitation in the region. Table 17 shows responses to how do you rate the effectiveness of the capitation in the region delivery in the Ashanti region. The study shows that 32.4% of respondents were good, 29.2% were very good, and significantly 21% were poor. The remaining 17.2% were excellent. The findings show that, respondent do not see any effectiveness in the implementation of the capitation. The finding is in congruent with Adu & Serebour 2012 that, the health of the people in Ashanti region is under threat under the capitation payment system while Marque (2014) believes that capitation is prone to poor quality service delivery.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.0 Introduction**

The chapter five captures the main overview of the study, research findings, recommendations and suggestion for further research study.

#### **5.1 Overview of the study**

The study accessed the effects of capitation payment system of national health insurance (NHIS) on health care delivery in Ashanti region. The study tested for significant, examine the various constituents of capitation payment system; determine the challenges associated with the capitation in Ashanti region; determine the satisfaction level of patients and service providers under the capitation payment system. Examine the nature of healthcare delivery in Ashanti region and determine effect of capitation on health care delivery in Ashanti region.

Data were collected from two hundred and fifty (250) using random sampling.

Questionnaire and interview guide were used as the main source of data and SPSS (18<sup>th</sup> edition) were used for the data analysis.

#### **5.2 Summary of Findings**

Summary of findings looked at the ingredients of the capitation payment system, the challenges of capitation payment system in Ashanti region, the satisfaction level of patients and service providers under capitation, nature of health care delivery in Ashanti region, the effects of capitation on health care delivery in Ashanti region.



### 5.2.1 The ingredients of the capitation system

Research question one sought to identify the **ingredients of the capitation system**

The study shows that 40% of respondents strongly agree that Package of primary care services. About 35.2% agree and 13.1% were uncertain. However, a significant of 9 % disagrees whilst a further 2.8 % strongly disagrees. The study further examine the ingredients of capitation system and the study shows that 38.6 % of respondents agree that Base per capital rate of 0.99 GH¢ in January and increased to 1.30 per member per month in April 2012 (15.60 GH¢ PMPA). About 33.1% strongly agree and a significantly 13.8% were uncertain. However, a significant of 9% disagrees and the remaining 5.5% were strongly agreed.

The study shows that 40% of respondents agree that whether Enrolment of clients to Preferred Primary Providers (PPP). About 36.6% strongly agree and 9.7% are uncertain. However, 8.3% disagrees whilst a further 5.5% strongly disagrees. The study shows that 39.3% of respondents agree that General and financial management and reporting systems (Common management Arrangement). About 35.2% strongly agree and 13.1% are uncertain. However, 6.2% disagrees whilst a further 6.2% strongly disagrees.

The study shows that 42.1% of respondents strongly agree that whether Quality monitoring system. About 36.6% agree and 9% are uncertain. However, 7.6% disagrees whilst a further 4.8% strongly disagrees

The finding shows that the main ingredients of capitation system are Package of primary care services, Base per capital rate of 0.99 GH¢ in January and increased to

1.30 per member per month in April 2012<sup>9</sup> (15.60 GH¢ PMPA), enrollment of clients to Preferred Primary Providers (PPP), General and financial management and reporting systems (Common management Arrangement) as well as quality monitoring system.

### **5.2.2 The Challenges associated with Capitation payment system in Ashanti region**

Research question two sought to identify the challenges associated with capitation payment system in Ashanti region. The study shows that majority of the respondents 76% stated that NHIS capitation pilot in the region was not important at all. The research also revealed that, 76% representing the majority responded that education on capitation pilot to general public was poor as well as very poor. The finding shows that 42. % said that, the relationship between National Health Insurance scheme (NHIS) and the service providers were very poor. The study revealed that, 76% of the respondents representing the majority of the service providers and NHIS staff said, the funds were released yearly. The study seeks to examine external challenges or problems associated with capitation payment system in Ashanti region.

Some of the internal challenges were financial sustainability of the capitation, identification of the poor in the informal sector Identity (ID) card management challenges and the information and communication technology (ICT) challenges of the capitation. The study demonstrates that, the means of the various variables under financial sustainability of the capitation are statistically significantly different from one another indicating that each variable has different problems associated with capitation payment system in Ashanti region.

Finally, the research seeking to examine internal challenges or problems associated with capitation payment system in Ashanti region. The external problems associated with the capitation were Moral hazard (Both demand & supply side), Pharmaceutical supply chain challenges – High cost of drugs , Ability to pay premium/Renewal Challenges , Quality of care challenges, Waiting times, Wrong application of Tariffs, Irrational Prescription of medicines, Inflation of quantities of medicine supplied, Unauthorized co-payment, Provision of services above accreditation level, Patient folder retrieval challenges, Overbilling of medicines.

The finding shows that, the means of the various variables under external problems associated with capitation payment system in Ashanti region are statistically significantly different from one another. Research question two sought to know the methods of payment to the service provider in Ashanti Region. The study shows that 80.8% of respondents state capitation pilot state was the main method of payment to the health care providers. 10% were fee for service and the remaining 9.2% were the Ghana DRG system. According to Wranik et al (2011), the three pure health care payment methods include: fee for- service (FFS), capitation, and Diagnostic related group (DRG). Since each has strengths and weaknesses, many jurisdictions have implemented blends of the three systems to combine the strengths and counteract the weaknesses.

Under the research question two, respondents were asked if they are satisfied with the mode of payment to the healthcare services. The finding shows that, majority of the

service providers were not satisfied with the mode of payment for healthcare services delivered. This is in line with the Ghana Medical Association (GMA), Adu and Serebour (2012), that the capitation payment system not only has the tendency to put health facilities at financial risk but also reversing to the cash and carry regime which has propensity to impede access and compromise the general wellbeing of the of the Ashanti's.

Finally, respondents were asked about their understanding about the term capitation. The finding shows that 56.4% of respondents were no which indicate majority of the respondents do not understanding the term capitation. 43.6 % were yes which shows that few people or the respondents understand the term capitation.

### **5.2.3 The satisfaction level of patients and service providers under the capitation payment system**

The findings show that majority which is more than half of the service providers were not satisfied with the mode of payment for the healthcare services.

Research question three sought to determine the extent to which service providers are satisfied with methods of payment to improve health care delivery in the Ashanti region. The findings show that, the extent to which service providers are satisfied with methods of payment to improve health care delivery in the Ashanti region collectively explained about 75% (adjusted  $R^2 = 0.749$ ) of the variance. Based on the order of entry chosen for the present sample, it appears Enhance early release of funds ( $\beta = 0.92$ ;  $t = 4.66$ ;  $p < 0.001$ ), Increment in the per capita payment which providers considered as woefully inadequate ( $\beta = 0.56$ ;  $t = 3.87$ ;  $p < 0.002$ ) and Quality monitoring system of



capitation ( $\beta = 0.40$ ;  $t = 2.66$ ;  $p < 0.049$ ) explained the bulk of the variance in improvement of health care delivery in the Ashanti region. Quality monitoring system of capitation statistically speaking was not significant. Wranik (2011) assert that, With the objective to improve the quality of health care delivery as well as efficient delivery of care, pay-for performance both remunerates and measures physician performance based on achieving certain clinical targets at the patient population level and quality goals.

Barros (2003) commented that, it is also possible that capitation promotes preventive work since under capitation physicians would like to preserve their patients' health status to avoid future costly treatments. The outcome of this study is in agreement with Marque (2014) who believes that capitation is prone to poor quality service delivery unless efficient and effective regulatory systems of quality control and audit link with a reliable information system are instituted. He strongly believed that, the implementation of these conditions would help achieve the benefits of controlling cost without limiting the needed care offered by the capitation.

#### **5.2.4 The nature of healthcare delivery in Ashanti region**

Research question four sought to determine the nature of healthcare delivery in Ashanti region. In determining the nature of healthcare delivery in Ashanti region, the study shows that 41.2% of respondents agree that Private – for – profit was a category of Categories of healthcare delivery in the Ashanti region. 33.6% strongly agree and 12.8% were uncertain. However, 6% disagrees whilst a further 6.4% strongly disagrees. The findings show that there were some private hospitals that objective were

to maximize profit. The study shows that 38.8% of respondents agree that Private – not for – profit was a category of Categories of healthcare delivery in the Ashanti region. 32.8% strongly agree and 14.4% responded uncertain. However, 5.6 % disagrees whilst a further 8.4% strongly disagrees.

The study shows that 40.8% of respondents strongly agree that public healthcare was a category of Categories of healthcare delivery in the Ashanti region. 36% agree and 10.4% are uncertain. However, 8% disagrees whilst a further 4.8% strongly disagrees. The finding demonstrates that, majority of the respondents do accept public healthcare as the main category of healthcare delivery in the Ashanti region.

The study shows that 36.8% of respondents strongly agree that on self – medication system was a category of Categories of healthcare delivery in the Ashanti region. 32.8% agree and 19.2% were significantly uncertain. However, 8.4% disagrees whilst a further 2.8% strongly disagrees.

The follow-up question was asked as to which of the categories of the healthcare delivery they were satisfied with. The study shows that majority representing 90% of the respondents said they were not satisfied with the public healthcare on the basis of long waiting time, poor patient-provider relationship.

#### **5.2.5 The effects of capitation on health care delivery in Ashanti Region**

Research question one sought to identify effects of capitation on health care delivery in Ashanti Region.

The research finding shows that majority of the responds 76% stated that NHIS capitation pilot in the region was not important at all. This finding is in line with Battista (1983), Proponents of capitation argue that it controls costs by eliminating the incentive for SID and increasing disease prevention and health promotion. The study further shows that 76% representing the majority responded that education on capitation pilot to general public were poor as well as very poor. 10.4 % were good, 5.2% were very good and the remaining 0.8% responded excellent. The finding indication that there were not cordial relationship between the National Health Insurance Authority (NHIA) and the service providers because the majority of the study population representing 77.2% said that, the relationship that exit between them was very poor on the basis delay in payment, unresponsive to their requests and lack of cordial relationship. The study shows that, 76% of the responds representing the majority of the service providers and NHIS staff said, the funds were release yearly, 13% admitted that they received their funds in six month and remaining 11% received their funds in every three months or quarterly. The findings show that, majority of the respondents need proper education on the term capitation for effective implementation. The findings show that significant majority do not see any improvement in healthcare in Ashanti region.

The research question seeks to know the effectiveness of the capitation in the region. Table 11 shows responses to how do you rate the effectiveness of the capitation in the region delivery in the Ashanti region. The study shows that 32.4% of respondents claimed that, capitation has made them worse off, whereas 29.2% were of the opinion that, services has been very good, and significantly 21% said service delivery under

capitation was poor moreover, the remaining 17.2% respondents said capitation was excellent. In brief, majority of the respondents shared similar sentiment with Adu & Serebour (2012) that, the capitation would make the people of Ashanti worse off with specific reference to health care.

### **5.3 Recommendations**

Based on the findings of the study, the following recommendations are made;

1. The national health insurance authority must intensify education on the capitation for people to have fair idea of importance of capitation to all the stakeholders.
2. For effective implementation of the capitation in the region, the national health insurance authority must create good work relationship with the service providers by responding positively to their claims.
3. The national health insurance authority should avoid delay in release of claims to the service provider to improve quality health care to patients.
4. The Authority must ensure effective implementation of the capitation by putting effective and efficient measures in place to make various departments in the NHIS work.
5. The government in conjunction with donor agencies should establish effective database system about Ghanaians before the capitation is implemented nation-wide.



#### **5.4 Suggestion(s) for Further Research**

A comparative study of cash and carry system and capitation payment system on health care delivery in Ashanti region.

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#### **REFERENCES**

- 7 Ways To Improve Patient Satisfaction, Experience, And Customer Service, From Consulting In Hospitals And Healthcare. (2013, November 2). Retrieved October 8, 2015, from
- Agyei-Baffour, P., Oppong ,R., & Boateng ,D. (2013) ,," Knowledge, Perceptions and expectations of capitation payment system in a health insurance setting: a repeated survey of clients and health providers in Kumasi, Ghana ,," , BMC Public Health.
- Allard, M., Jelovac, I., & Leger, P. T. (2011). Treatment and referral decisions under different physician payment mechanisms. *Journal of health economics*,30(5), 880-893.
- Asadi-Lari, M., Tamburini, M., & Gray, D. (2004). Patients' needs, satisfaction, and health related quality of life: towards a comprehensive model. *Health and quality of life outcomes*, 2(1), 32.

- Barros, P. P. (2003). Cream-skimming, incentives for efficiency and payment system. *Journal of Health Economics*, 22(3), 419-443.
- Berwick, D. M. (1995). The toxicity of pay for performance. *Quality Management in Healthcare*, 4(1), 27-33.
- Blanchet, J., & Roberts, M. J. Drug Coverage in Ghana's National Health Insurance Scheme.
- Busse, R., Geissler, A., Aaviksoo, A., Cots, F., Häkkinen, U., Kobel, C., ... & Quentin, W. (2013). Diagnosis related groups in Europe: moving towards transparency, efficiency, and quality in hospitals?. *BMJ*, 346.
- Cameron, P. A., Kennedy, M. P., & McNeil, J. J. (1999). The effects of bonus payments on emergency service performance in Victoria. *The Medical Journal of Australia*, 171(5), 243-246.
- Chalkley, M., & Malcomson, J. M. (1998). Contracting for health services when patient demand does not reflect quality. *Journal of health economics*, 17(1), 1-19.
- Dashzeveg, C., Mathauer, I., Enkhee, E., Dorjsuren, B., Tsilaajav, T., & Batbayar, C. (2011). OASIS Mongolia—the role of institutional design and organizational practice for health financing performance in Mongolia. Geneva: World Health Organization.
- Eisenberger, R., & Cameron, J. (1996). Detrimental effects of reward: Reality or myth?. *American psychologist*, 51(11), 1153.
- Ellis, R. P., & McGuire, T. G. (1986). Provider behavior under prospective reimbursement: Cost sharing and supply. *Journal of health economics*, 5(2), 129-151.
- Ellis, R. P., & McGuire, T. G. (1990). Optimal payment systems for health services. *Journal of health economics*, 9(4), 375-396.

- Faden, L., Vialle-Valentin, C., Ross-Degnan, D., & Wagner, A. (2011). The role of health insurance in the cost-effective use of medicines in low-and middleincome countries. *Health Policy*, 100, 134-143.
- Farris, P. W., Bendle, N. T., Pfeifer, P. E., & Reibstein, D. J. (2010). *Marketing metrics: The Definitive guide to measuring marketing performance*. Pearson Education.
- Forsberg, E., Axelsson, R., & Arnetz, B. (2001). Financial incentives in health care. The impact of performance-based reimbursement. *Health Policy*, 58(3), 243-262.
- Gaceri, K. A. (2015). Factors Affecting the Implementation of Health and Safety in Supermarkets in Kenya. *International Journal of Human Resource Studies*, 5(2), 223-281.
- Glazier, R. H., Klein-Geltink, J., Kopp, A., & Sibley, L. M. (2009). Capitation and enhanced fee-for-service models for primary care reform: a population-based evaluation. *Canadian Medical Association Journal*, 180(11), E72-E81.
- Hibbard, J. H., Greenlick, M. R., Kunkel, L. E., & Capizzi, J. (2001). Mode of payment, practice characteristics, and physician support for patient self care. *American journal of preventive medicine*, 20(2), 118-123.
- Iversen, T., & Lurås, H. (2000). The effect of capitation on GPs' referral decisions. *Health Economics*, 9(3), 301-315.
- Kobel, C., Thuilliez, J., Bellanger, M., & Pfeiffer, K. P. (2011). DRG systems and similar patient classification systems in Europe. *Diagnosis-Related Groups in Europe: moving towards transparency, efficiency and quality in hospitals*, 1st edn. Open University Press and WHO Regional Office for Europe, Buckingham, 37-58. 199-210.
- Koppel, A., Kahur, K., Habicht, T., Saar, P., Habicht, J., & van Ginneken, E. (2008). *Health Systems in Transition*. Health, 10(1).

- Kutzin, J., Ibraimova, A., Jakab, M., & O'Dougherty, S. (2009). Bismarck meets Beveridge on the Silk Road: coordinating funding sources to create a universal health financing system in Kyrgyzstan. *Bulletin of the World Health Organization*, 87(7), 549-554.
- Kutzin, J., Ibraimova, A., Kadyrova, N., Isabekova, G., Samyshkin, Y., & Kataganova, Z. (2002). *Manas Health Policy Analysis Project: innovations in resource allocation, pooling and purchasing in the Kyrgyz health system*. Bishkek: World Health Organization & Ministry of Health.
- Langenbrunner, J. C., Cashin, C., & O'Dougherty, S. (2009). What, how, and who: an introduction to provider payment systems. *How-To Manuals*, 1.
- Lazarevik, V. (2011). *Introducing DRG as a new reimbursement model for hospitals in the Republic of Macedonia*. Sofia: Ministry of Health.
- Lee, T. T., Cheng, S. H., Chen, C. C., & Lai, M. S. (2010). A pay-for-performance program for diabetes care in Taiwan: a preliminary assessment. *The American journal of managed care*, 16(1), 65-69.
- Mathauer, I., & Wittenbecher, F. (2013). Hospital payment systems based on diagnosis-related groups: experiences in low-and middle-income countries. *Bulletin of the World Health Organization*, 91(10), 746-756A.
- Maylath, E. (2000). DRGs in der psychiatrischen Krankenhausfinanzierung am Beispiel Ungarns: Ein Modell für Deutschland?. *Das Gesundheitswesen*, 62(12), 633-645.
- McGuire, T. G. (2000). Physician agency. *Handbook of health economics*, 1, 461-536.
- McIntyre, D., Garshong, B., Mtei, G., Meheus, F., Thiede, M., Akazili, J., ... & Goudge, J. (2008). Beyond fragmentation and towards universal coverage: insights from Ghana, South Africa and the United Republic of Tanzania. *Bulletin of the World Health Organization*, 86(11), 871-876.



- Milne, R. G., & Torsney, B. (2003). Financial incentives, competition and a two tier service: lessons from the UK National Health Service internal market. *Health Policy*, 64(1), 1-12.
- Murante, A. M. (2010). Patient satisfaction: a strategic tool for health services management (Doctoral dissertation, Scuola Superiore Sant'Anna).
- Newhouse, J. P. (1996). Reimbursing health plans and health providers: efficiency in production versus selection. *Journal of economic literature*, 1236-1263.
- Ofori, R. (2006). Measuring motivational orientations toward support-seeking: The development and predictive validity of the motives for tutorial supportseeking questionnaire. *Nurse education today*, 26(3), 228-239.
- Park, M., Braun, T., Carrin, G., Evans, D. B., & World Health Organization (WHO). (2007). Provider payments and cost-containment lessons from OECD countries. *WHO Technical Brief for Policy Makers*, (2).
- Pauly, M. V. (1990). The rational nonpurchase of long-term-care insurance. *Journal of Political Economy*, 153-168.
- Quimbo, S. A., Peabody, J. W., Shimkhada, R., Woo, K., & Solon, O. (2008). Should we have confidence if a physician is accredited? A study of the relative impacts of accreditation and insurance payments on quality of care in the Philippines. *Social science & medicine*, 67(4), 505-510.
- Reschovsky, J. D., Hadley, J., & Landon, B. E. (2006). Effects of compensation methods and physician group structure on physicians' perceived incentives to alter services to patients. *Health services research*, 41(4p1), 1200-1220.
- Seddoh A, Adjei S, & Nazzar, A. (2011) Ghana's National Health Insurance Scheme, Views on progress, observations and commentary, Centre for Health and Social Services.

- Simoens, S., & Giuffrida, A. (2004). The impact of physician payment methods on raising the efficiency of the healthcare system. *Applied Health Economics and Health Policy*, 3(1), 39-46.
- Sorbero, M. E., Dick, A. W., Zwanziger, J., Mukamel, D., & Weyl, N. (2003). The effect of capitation on switching primary care physicians. *Health services research*, 38(1p1), 191-209.
- Taylor, E. M. (2011). Regulating private health insurance: The reality behind the rhetoric in Uganda. *Global public health*, 6(1), 72-82.
- Vladescu, C., Scîntee, G., & Olsavszky, V. (2008). Health systems in transition. *Health*, 10(3).
- Vončina, L., Strizrep, T., Bagat, M., Pezelj-Duliba, D., Pavić, N., & Polašek, O. (2012). Croatian 2008-2010 health insurance reform: hard choices toward financial sustainability and efficiency. *Croatian medical journal*, 53(1), 66-76.
- Witter, S., & Garshong, B. (2009). Something old or something new? Social health insurance in Ghana. *BMC International Health and Human Rights*, 9(1), 20.
- Wranik, D., & Durier-Copp, M. (2011). Framework for the design of physician remuneration methods in primary health care. *Social work in public health*, 26(3), 231-259.
- Yip, W. C. M., Hsiao, W., Meng, Q., Chen, W., & Sun, X. (2010). Realignment of incentives for health-care providers in China. *The Lancet*, 375(9720), 1120-1130.
- National Health Insurance Act 2003, ( Act 6500).
- Goodson, J.D., Intern, J.G., Jenson, J. G., Jacobs, M. B., Lehmann, J.W., Colditz G.A., Hall, D., Atamian, S., Peltier-Saxe, D., Richter, J.M. (2015). The future of capitation: the physician role in managing change in practice. <https://connects.catalyst.harvard.edu/profiles/profile/1236625>

Ellis,R.(1998). Creaming, Skimming and Dumping: Provider competition on the intensive and extensive margins. *Journal of Health Economics* 17: 537-555.

Ma, C.A. (1994). Health care payment systems: cost and quality incentives. *Journal of Economic Management Strategy* 3: 93-112.

Ministry of Health.(2012). Annual Report.

Ministry of Health- Holistic Assessment of 2013 Programme of Work.

Michael, O., Richard, N., Paul, A. O., Edmund, T. (2014). The effect of Capitation payment on the National Health Insurance Scheme in Ashanti region. Ghana.[http:// www.academia.edu/7913976](http://www.academia.edu/7913976) region.

Mechanic, D., Aiken, L. (1989). Capitation in Mental Health: Potentials and Cautions. *Paying for Services: Promises and Pitfalls of Capitation*. San Francisco: Jossey-Bass Publishers

Michael E. C., Mechanic R. E., Landon, B.E., Safran, D. G., (2011). Private-Payer Innovation in Massachusetts: The Alternative Quality Contract.

World Health Organization (2013). The right to health. <http://www.who.int/mediacentre/factsheets/fs323/en>

Ghana Statistical Service (GSS 2002) Report.

National Health Insurance Authority (Annual Report NHIA 2011).

World Bank Annual Report (2011).

Witter, O., Garshong, B., (2009). :Something old or something new? Social health insurance in Ghana. <http://www.biomedcentral.com/1472-698X/9/20>.

Kongstvedt, P.R., (2007). *Essentials of Managed Health Care*.

Rice,N., Smith, P. (2009)Capitation and risk adjustment in health care financing: An international progress report. *Milbank Quarterly*.

79:81–113. doi: 10.1111/1468-0009.00197. [PMC free article]  
[PubMed] [Cross Ref]

Housden, M., (2007). Chartered Institute of Marketing (CIM): marketing Research and Information

<http://www.forbes.com/sites/micahsolomon/2013/11/02/quick-truths-forimproved-patient-satisfaction-and-customer-service-from-consulting-inhospitals-and-healthcare/>

## **APPENDIX**

**Kwame Nkrumah University of Science and Technology, Kumasi**

**School of business**

**Topic: Effects of Capitation payment system on health care delivery. A case study in Ashanti Region**

### **Questionnaire (NHIS staff, patients and service providers)**

This questionnaire is part of a study being conducted by a student of Kwame Nkrumah University of Science Technology, on investigating Effects of Capitation payment system on health care delivery in Ashanti Region You are, therefore, respectfully required to read this instruction and co-operate by providing the answers. You are assured that your responses will be treated as strictly confidentiality as possible. Please do not write your name.

## **SECTION A**

### **Respondent's Background Information**

Tick (✓) or fill in the appropriate spaces provided.

1. Gender: Male [ ] Female [ ]
2. Please indicate your age range below 25 [ ] 26-35 [ ] 36-45 [ ] 46-55



[ ] Above 55

3. What is your academic qualification? WASSCE/SSCE [ ] Diploma [ ]

Bachelor Degree [ ] Post graduate degree [ ]

4. How long have you been with NHIS

2 years and below [ ] 3-5 [ ] 6-8 [ ] 9-10 [ ] 11 and above [ ]

## SECTION B

### MAIN COMPONENTS OF CAPITATION

Please indicate the main components of capitation health care delivery in the Ashanti region.

1= strongly disagree; 2= disagree, 3= uncertain; 4= agree; 5= strongly agree

No	Main components of capitation	1	2	3	4	5
5	Package of primary care services	1	2	3	4	5
6	Base per capital rate of 0.99 GH¢ in January and increased to 1.30 per member per month in April 20129 (15.60 GH¢ PMPA).	1	2	3	4	5
7	Enrolment of clients to Preferred Primary Providers(PPP)	1	2	3	4	5
8	General and financial management and reporting systems (Common management Arrangement)	1	2	3	4	5
9	Quality monitoring system	1	2	3	4	5

10. If any state them .....

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## SECTION C

### CHALLENGES ASSOCIATED WITH THE CAPITATION IN ASHANTI

#### REGION?

Please indicate challenges of the capitation pilot

1= strongly disagree; 2= disagree, 3= uncertain; 4= agree; 5= strongly agree

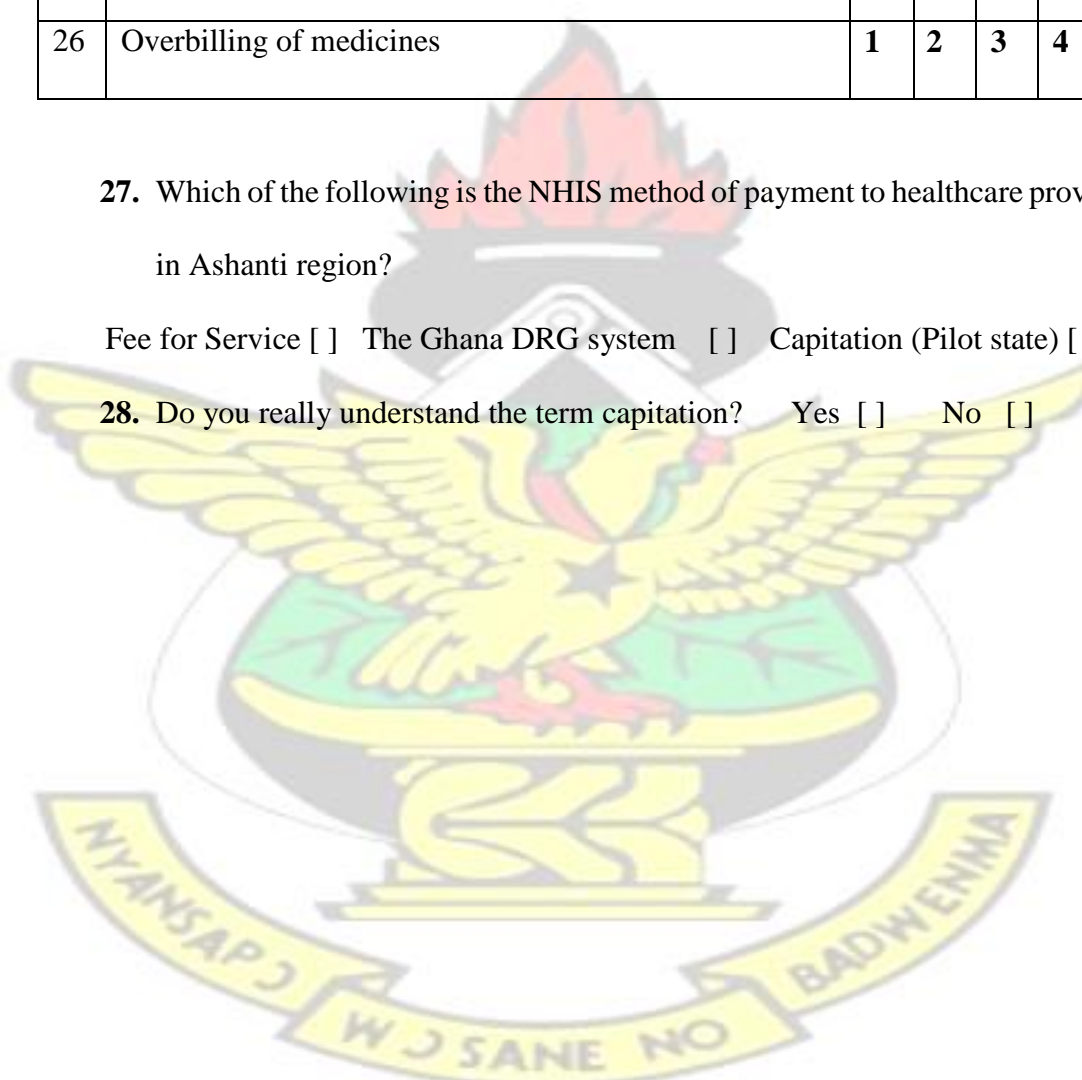
No	Internal challenges	1	2	3	4	5
11	Financial sustainability of the capitation	1	2	3	4	5
12	Identification of the poor in the informal sector of capitation	1	2	3	4	5
13	ID card management challenges	1	2	3	4	5
14	ICT Challenges of the capitation	1	2	3	4	5
<b>External challenges</b>						
15	Moral hazard (Both demand & supply side)	1	2	3	4	5
16	Pharmaceutical supply chain challenges – High cost of drugs	1	2	3	4	5
17	Ability to pay premium/Renewal Challenges	1	2	3	4	5
18	Quality of care challenges	1	2	3	4	5
19	Waiting times	1	2	3	4	5

20	Wrong application of Tariffs	1	2	3	4	5
21	Irrational Prescription of medicines	1	2	3	4	5
22	Inflation of quantities of medicine supplied	1	2	3	4	5
23	Unauthorized co-payment	1	2	3	4	5
24	Provision of services above accreditation level	1	2	3	4	4
25	Patient folder retrieval challenges	1	2	3	4	5
26	Overbilling of medicines	1	2	3	4	5

**27.** Which of the following is the NHIS method of payment to healthcare providers in Ashanti region?

Fee for Service ☐ The Ghana DRG system ☐ Capitation (Pilot state) ☐

**28.** Do you really understand the term capitation? Yes ☐ No ☐



## SECTION D

### SATISFACTION LEVEL OF PATIENTS AND SERVICE PROVIDERS UNDER THE CAPITATION PAYMENT SYSTEM?

Please indicate to what extent the service providers are satisfied with methods of payment to improve health care delivery in the Ashanti region.

**1= strongly disagree; 2= disagree; 3= uncertain; 4= agree; 5= strongly agree**

No	How to improve satisfaction level (service providers)	1	2	3	4	5
29	Increment in the per capita payment which providers considered as woefully inadequate	1	2	3	4	5
30	Enhance early release of funds	1	2	3	4	5
31	Quality monitoring system of capitation					

32. Are you satisfied with the mode of payment by the National Health Authority?

Yes ☐ No ☐

33. How do you rate the level of satisfaction you derive from health care delivery

High ☐ Average ☐ Low ☐



## SECTION E

### NATURE OF HEALTHCARE DELIVERY IN ASHANTI REGION

Please indicate Categories of healthcare health delivery in the Ashanti region

**1= strongly disagree; 2= disagree, 3= uncertain; 4= agree; 5= strongly agree**

No	Categories of healthcare health delivery	1	2	3	4	5
34	Private – for – profit	1	2	3	4	5
35	Private – not for – profit	1	2	3	4	5
36	Traditional system	1	2	3	4	5
37	Self – medication system					

38. Which of these do you always go for medical check up Private – for – profit [ ]  
 private – not for – profit [ ] traditional system (public) [ ] self medication system  
 [ ]

39. Which of the above are you satisfied with.....

## SECTION F

### EFFECTS OF CAPITATION ON HEALTH CARE DELIVERY IN ASHANTI REGION?

40. How important is capitation payment system to NHIS?

Not important at all [ ]

Not important [ ]

Uncertain [ ]

Important [ ]

Very important [ ]

41. In general, how would you rate the education of the capitation pilot in Ashanti region:

Excellent ☐ Very Good ☐ Good ☐ Poor ☐ Very Poor ☐

42. What has been the relationship between service provider and NHIS

Excellent ☐ Very Good ☐ Good ☐ Poor ☐ Very Poor ☐

43. How long does it take for NHIs to make payment to the service providers (health services)

Quarterly ☐ six months ☐ yearly ☐

44. Do you really understand the term capitation? Yes ☐ No ☐

45. Do you think the introduction of capitation in Ashanti region have improved health care? Yes ☐ No ☐

46. How do you rate the effectiveness of the capitation in the region?

Excellent ☐ Very Good ☐ Good ☐ Poor ☐ Very Poor ☐

