

**THE RELATION BETWEEN CAPITATION PAYMENT AND  
PERFORMANCE IN NATIONAL HOSPITAL INSURANCE FUND  
ACCREDITED HOSPITALS**

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## DECLARATION

### STUDENT DECLARATION

I declare that this research project is my original work and it has never been presented to any other college, institution or any university for any academic award other than University of Nairobi for academic credit.

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This project has been submitted for presentation with my approval as supervisor.

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I give all the glory and honor to the Almighty God for his guidance and everything He has done for me.

I thank my family and friends for their encouragement and support throughout this process.

To my supervisor, Dr. Kennedy Okiro, thank you for your guidance and support without whose help this project would not have been a success.

## **DEDICATION**

This project is dedicated to my dear husband, Andrew Mutea, family and friends who have supported me the entire time. Your support is highly appreciated.

## ABSTRACT

Capitation as a mode of payment to NHIF accredited hospitals is an added advantage to the hospital in terms of predictability. Since the payment is made up front, it makes the hospitals' income predictable and stable. This makes it more feasible for them to plan and implement service changes. The study sought to establish the relationship between capitation payment and performance in NHIF accredited hospitals. The research design that was used is descriptive study. The target population of this study was all the 1,600 NHIF accredited hospitals in Kenya. Data was collected using both primary and secondary sources. The data collection instruments that were used to collect primary data from the selected respondents were questionnaires and interview schedule. Secondary data was collected from the audited accounts of the hospitals. The data collected was analyzed using descriptive statistics. The relationship between individual independent variables; average length of stay, filing of returns and customer satisfaction surveys were established through Pearson correlation analysis. While the relationship between the independent and dependent variable was established using regression analysis. Analysis of variance (ANOVA) tests was used in the analysis of experimental data to test the variables for statistical significance. The study concluded that bureaucracies in government agencies were the major hindrance in the provision of health care through capitated mode of payment. Lack of employment among patients was the major hindrance to the rolling out of capitated mode in provision of health services. Insurance covers has reduced the levels of costs of accessing health services and lack of specialists is a hindrance to provision of services through capitation of payment. Budgetary allocations, illiteracy among the patients and ignorance of the patients is a hindrance to provision of healthcare through capitated methods. The study recommends the government through the Ministry of Health and the National Treasury should ensure that it allocate enough funds to the ministry and also ensure that it has enough funds through the NHIF fund to ensure the implementation of capitation mode of payment in provision of health services. The government should educate the citizens on the importance of enrolling with the NHIF and also remove political interferences and the bureaucracies in government agencies which are a major hindrance in the provision of health care through capitated mode of payment. Since capitation payment in particular has important implications on market structure and competitive behavior among providers' subject to capitation payment incentives it is important that the government understands and is able to anticipate these implications in order to design appropriate policies and necessary regulations.

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## **LIST OF ABBREVIATIONS**

<b>ALOS:</b>	Average Length of Stay
<b>CPB:</b>	Case-Based Payments
<b>FFS:</b>	Fee for Service
<b>HMO:</b>	Health Maintenance Organization
<b>IPA:</b>	Independent Practice Association
<b>ISO:</b>	International Organization for Standardization
<b>MCO:</b>	Managed Care Organization
<b>NHIF:</b>	National Health Insurance Fund
<b>PPP:</b>	Preferred Primary Provider
<b>UHC:</b>	Universal Health Care
<b>WHO:</b>	World Health Organization

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

Capitation is a technique for remuneration now and again utilized by medical coverage organizations, in which installment is made to a human services supplier in advance on a for each patient as opposed to a for every administration premise (Miller, 2009). It pays the doctor or gathering of doctors a set sum per member, per period of time, whether the member seeks services or not (Horwitz *et al*, 2009).

(FFS) model, the monetary danger of giving social insurance services is borne by the insurer. The primary care provider or physician bears minimal risk as the payments are done for each service offered. Insurers bear the short-term risk in that in any year the payments made for services offered may exceed the premiums collected. Typically, the hospital records the distinctive administrations they have given to the part and the cost of every administration.

When a essential care supplier consents to a capitation arrangement, a rundown of particular administrations to be offered is listed in the contract. The primary care provider as well bears a short-term risk that the costs of providing services will exceed the capitation payments. Doctors ought to look for concurrences with arrangements that give adequate budgetary assets to all important care, and ought to decline to consent to arrangements that flop in such manner. Capitation can affect delivery of services by fostering innovation in disease management and by encouraging integration of various components of the health care delivery system.

NHIF has decided to adopt the capitation model in provision of healthcare. This study therefore seeks to measure if capitation has a positive influence on performance of

accredited hospitals which can be evaluated through average length of stay, filing of returns, customer satisfaction surveys and regular inspections.

### **1.1.1 Capitation**

It's an installment game plan for social insurance benefit suppliers, for example, doctors or medical caretaker specialists. It pays a doctor or gathering of doctors a set sum for each enlisted individual doled out to them, per timeframe, regardless of whether that individual looks for care (Horwitz et al, 2009). These suppliers by and large are contracted with a kind of wellbeing upkeep association (HMO) known as a free practice affiliation (IPA), which enrolls the suppliers to administer to HMO-enlisted patients. The measure of compensation depends on the normal expected social insurance usage of that patient, with more noteworthy installment for patients with critical therapeutic history. Under capitation, human services suppliers go into concurrence with protection to give a predefined add up to every patient selected in the plan. Typically, this sum is paid quarterly paying little heed to the number patient visits. The sum that human services suppliers are paid depends on the normal expected social insurance use of that patient (the sum shifts relying upon the medicinal history of the patients). Different variables considered incorporate age, race, sorts of business and geological area, as these elements commonly impact the cost of giving consideration (Adu-Gyamfi, 2012).

Under capitation, doctors are offered motivation to consider the cost of treatment. Immaculate capitation pays a set expense for every patient, paying little heed to their level of illness, and gives doctors a motivating force to maintain a strategic distance from the most exorbitant patients (Miller, 2009). Suppliers who work under such plans concentrate on preventive human services, as there is more prominent budgetary reward in aversion of ailment than in treatment of the evil. Such arranges deflect

suppliers from the utilization of costly treatment alternatives. The defenders of this technique for installment particularly insurance agencies contend that when medicinal services suppliers are not paid additional for extra office visits any related restorative costs, they are probably going to be more moderate with their treatment appraisals (Nsiah, 2014). This will drop to zero the propensity for prompting understanding with pointless and expensive restorative methodology or medicines since any extra expenses must be consumed by the human services suppliers. Likewise, Proponents of this strategy demonstrate that capitation would urge specialists to concentrate on preventive administer to their patients. Specialists will be more worried with patient's wellbeing status in light of the fact that falling debilitated will cost those more to treat. They would urge patients to get more advantageous by getting in shape, working out, eating or to stop smoking (Nsiah, 2014).

However, critics of capitation powerfully contend that it brings about poorer medicinal services basically in light of the fact that when doctors or suppliers of social insurance are agonized over prescribing additional techniques (essential) or therapeutic care since they would prefer not to manage the additional cost that outcomes; the nature of the patient's care will be stuck in an unfortunate situation particularly if there is support for that additional care. It must be accentuated likewise that capitation puts much hazard on the social insurance suppliers particularly budgetary dangers and it must be said that the money related dangers human services suppliers acknowledge are the customary protection dangers. Since suppliers have altered incomes each enlisted persistent makes his/her cases against the full assets of the supplier (estimation of capitation) however it ought to be called attention to that doctors and other human services suppliers do not have the vital actuarial, guaranteeing, bookkeeping and back aptitudes for protection hazard administration

and in this manner, it gets to be troublesome for them to capacity well particularly in our part of the world (Nsiah, 2014). Capitation may demoralize a doctor from giving the level of care that they would on the off chance that they were paid per methodology. Suppliers in capitation framework might need to give great care yet the money related; pick up clashes with the prosperity of their patients. There are additionally impetuses for social insurance suppliers to pick patients who are lower hazard to stay away from high hazard patients who require more care in this manner restricting access to those patients.

The money related dangers suppliers acknowledge in capitation are customary protection dangers. Supplier incomes are altered, and each enlisted persistent makes a claim against the full assets of the supplier. In return for the altered installment, doctors basically turn into the enlisted customers' safety net providers, who resolve their patients' cases at the purpose of care and accept the accountability for their obscure future social insurance costs (Cox, 2012). Substantial suppliers have a tendency to deal with the hazard superior to do littler suppliers since they are better arranged for varieties in administration request and expenses, however even vast suppliers are wasteful hazard administrators in contrast with expansive back up plans. Suppliers have a tendency to be little in contrast with back up plans as are more similar to individual customers, whose yearly expenses as a rate of their yearly income differ significantly more than do those of extensive guarantors (Cox, 2011). For instance, a capitated eye administer to 25,000 patients is more suitable than a capitated eye program for 10,000 patients. The littler the program of patients, the more noteworthy the variety in yearly expenses and the more probable that the expenses may surpass the assets of the supplier. In little capitation portfolios, a little

number of exorbitant patients can drastically influence a supplier's general expenses and increment the supplier's danger of indebtedness.

### **1.1.2 Performance of Hospitals**

Performance in healthcare should be characterized in connection to express objectives mirroring the estimation of different partners (patients, safety net providers and controllers). Doctor's facility execution might be characterized according to the accomplishment of indicated targets, either clinical or managerial. There are many different indicators used to measure hospital performance. These indicators include: inpatient crude death rate, normal length of stay, readmission rate, inhabitation rate, customer satisfaction surveys, filing of returns, inspections, claims denial rate and number of referrals. In this study, four measures of performance of hospitals will be employed which include: filing of returns, average length of stay and customer satisfaction surveys and inspections.

Filing of returns by hospitals can be used to ascertain the number of people who have accessed the services. NHIF pays a fixed amount for a certain number of people per hospital. Not all members will fall sick during that period, therefore it is important for hospitals to file returns to enable NHIF assess the utilization of capitation funds. This information is useful to NHIF as it can help

(ALOS) is often regarded as an indicator of efficiency. It refers to the average number of days a patient stays in a hospital. A shorter length of stay in hospital will release capacity in the system, including bed occupancy and staff time. ALOS is often used as a measure of efficiency. The ALOS target for NHIF is 4 days with exemption of complicated illnesses. According to a study carried out by Taheri, Butzand Greenfield (2000), for most patients, the expenses specifically inferable from



the most recent day of a healing center stay are a monetarily unimportant part of aggregate expenses. Lessening LOS by as much as 1 entire day diminishes the aggregate cost of care by and large by 3% or less.

Customer satisfaction surveys can reliably measure performance of NHIF accredited hospitals against unequivocal models at a national level. Healing facility execution is turning out to be more inclined towards understanding strengthening, comfort, objection components, health education and continuity of care. The advantage of this technique is that it distinguishes what is esteemed by the patients and overall population and institutionalized reviews can be customized to gauge particular areas of experience and fulfillment.

Assessment of healing centers incites similarity and measures execution as far as insignificant necessities for wellbeing. Inspection is done on a regular basis by NHIF to check on the quality of services offered by the accredited hospitals. (ISO Standards) confirmation measures clinic execution regarding consistence with global principles for quality frameworks. ISO built up a progression of measures (ISO 9000), initially for the assembling business (medications, therapeutic gadgets), that have been utilized to survey quality frameworks in particular parts of wellbeing administrations and healing centers

### **1.1.3 Capitation and Performance**

Capitation as a mode of payment to NHIF accredited hospitals is an added advantage to the hospital in terms of predictability. Since the payment is made up front, it makes the hospitals' income predictable and stable. This makes it more feasible for them to plan and implement service changes. There is also hospital accountability once the hospital signs a contract with NHIF. The hospital is expected to ensure provision of

quality healthcare. The hospital is also responsible for covering majority (or all) members capitated to it creating a greater requirement for coordinated and integrated care.

As hospitals take on greater financial risk, they are incentivized to invest more in preventive care and treat in the lowest cost setting while still maintaining quality health standards. While financial risk transfer may offer long term benefits to the hospital, it poses a risk to the hospital if it spends more than the budgeted amount.

#### **1.1.4 NHIF Accredited Hospitals**

NHIF does not provide health care services to the beneficiaries directly in sense of ownership of health facilities; relatively, it facilitates access of health services through a network of accredited health facilities. Currently there are 2,184 accredited health facilities throughout the country. The facilities are classified as government, faith based and private health facilities. Accreditation of a wellbeing supplier considers the administrations, work force, foundation and gear among different issues that the organizations have.

To become an NHIF accredited hospital, the hospital sends its request through the nearest branch office to headquarters. Upon approval of the request, a Benefits and Quality Assurance Officer visits the hospital to assess it using a manual assessment tool developed by NHIF. The report is then compiled and sent back to headquarters for board approval. Once the board approves accreditation of the hospital, it is gazetted and the hospital is required to pay an accreditation fee. Upon payment of the accreditation fee, the hospital is issued with a hospital code which will be used in all the payments towards the hospital.

Accredited health facilities are required to provide quality services to NHIF beneficiaries because the success of NHIF depends much on how health care providers receive and treats NHIF beneficiaries. Therefore, an adherence to NHIF standards is very important to ensure that the facility gets high reimbursement rate which will lead to improvement of services to NHIF beneficiaries. In order for the accredited health provider to be reimbursed for the services they provided to NHIF beneficiaries, they must adhere to NHIF guidelines and standards, failure to which may result into revocation of accreditation.

## **1.2 Research Problem**

NHIF is a state corporation established through an Act of Parliament No 9 of 1998. Its core mandate is to finance health insurance for registered members and their declared dependents. Capitation as a mode of reimbursement to hospitals in Kenya was introduced in 2012 with the introduction of the Civil Servants & Disciplined Services Scheme. Consequently, in 2015 with the increment of monthly rates, NHIF implemented the capitation payment in the National Scheme. NHIF as a social health insurer is the first and only insurer in Kenya to use capitation as a method of reimbursement to hospitals. There is a huge knowledge gap on the understanding of capitation which cuts across the public, health practitioners and even policy makers. Because of this lack of understanding, many of them shun capitation and have a negative attitude towards it. Most medical practitioners believe that the funds allocated per member are not enough to cover the cost of treatment. The members as well are not properly versed with the benefits of capitation which enhances access to health care services to everyone, even the poor.

According to Brunoni et al (2014), capitation seems to support a diminishing in the use of doctors' administrations in a few zones of social insurance in the short run. The

utilization of capitation in the human services environment as a way to lower general expenses has uncovered some blended results in the studies inspected. Capitation urges doctors to be all the more monetarily dependable in the choice of administrations gave to the patients and also the provisions utilized as a part of surgical techniques. The study carried out by Agyei-Baffour, Opong and Boateng (2013) indicates that a larger part, of the customers had known about capitation installment in spite of the fact that this did not convert into their level of comprehension. It likewise demonstrated that capitation was not imperative to them as customers are confined to one (PPP) for a drawn-out stretch of time. In any case, some wellbeing suppliers in the study shared the view that capitation assert preparing and is enhancing essential medicinal services conveyance, nature of care and advancing business development and improvement. The study by Nsiah (2014) indicates that capitation leads to efficient use of resource, creates competition among hospitals (quality service).

The study carried out by Kirui and Nyarombe (2015) indicated that the factors affecting the levels of implementation of capitation include: government stewardship, political inclination, financing the programme, ignorance, reluctance and resistance, employment member contracts, types of ailment and self-ego. Others were non-adherence, lack of transparency. Financing was also identified as a key factor attributable to the government especially inadequacy of finance. The patient related factors which affect implementation of the capitation programme include ignorance on the capitation programme as well as on the accredited health facilities, reluctance to change, employment contracts of the patients, type of ailments and self-ego that may not be handled in the accredited facilities. Patients also perceive the costs reacted with capitation negatively and cultural beliefs which deter them from utilizing the

programme. Management related factors include non-adherence to standards and transparency in the capitation process. These studies indicate that capitation as a method of health financing has encountered several challenges which need to be addressed. For this reason, research answering: Relation among capitation payment and performance in NHIF accredited hospitals?

### **1.3 Research Objective**

Establish relation among capitation payment and execution in NHIF accredited hospitals.

### **1.4 Value of the Study**

Research benefits health care providers and insurers. It will help them have a greater understanding on the concept of capitation and its benefits towards the provision of affordable and quality healthcare. It will drive them towards determining the true costs of offering services.

The knowledge of capitation in relation with accredited health facilities will further be useful to the government. The government is the chief policy maker and therefore this study will act as a guide on how to provide quality and easily accessible healthcare as we look towards achieving UHC. Capitation underpins national social insurance objectives as it emphasizes on cost control and additionally health and counteractive action.

Study will also be useful to the general public as it will educate them on the benefits of capitation payment and how it has increased access to health care services to the people. Research forms analysis on effects of capitation on health insurance provision.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

Part aims to cover hypothesis be reviewed with respect to capitation; the determinants of performance in NHIF accredited hospitals and the empirical review of related studies both local and international.

#### **2.2 Theoretical Review**

Part will cover hypothesis similar capitation. It takes a gander at the diverse schools of considered distinctive researchers and how they see capitation as a mode of payment.

##### **2.2.1 Agency Theory**

The study will adopt the Agency theory which was started by Berle and Means (1932) and is a prevailing worldview in clarifying the association's effectiveness issue. The hypothesis expresses that office issue or primary operator relationship emerges when gatherings' practices are compelled through contract, in which at least one people (the principal(s)) connect with someone else (the specialist) to play out some administration for their sake. Organization hypothesis suggests that both of the gatherings are go getter and childish performing artists who will bear any push to accomplish their own utility augmentation. Typically, principals can constrain the uniqueness amongst important and operator by suitable screen and motivation game plan, for example, administrative shareholding, organizations shareholding, governing body, and so forth. While any screen and motivating force will initiate costs themselves, and in the meantime, due to data is blemished, exorbitant, and particularly lopsidedly appropriated among the gatherings, the productivity of the administration framework is being referred to. Subsequently there is a justifiable reason motivation

to trust that the operator won't generally act to the greatest advantage of the main, even in a few conditions, directors may settle on a choice to the detriment of proprietors. More or less, organization hypothesis is the hypothesis about the ethical dangers issue, or the ex post expenses of agreement (Berle and Means, 1932).

This theory relates to the study in that the insurance companies that provide the capitation represent the principals while the service providers represent the agents who are contracted at a certain capitation to provide health care provision for the registered clients/patients. Agency Theory and installment motivating forces techniques for installment constitute a type of motivator contract, connecting the individual doctor with the bigger association be it a backup plan, a therapeutic gathering, or a legislative medical advantages program. Accordingly, the examination and elucidation of doctor installment falls inside the bigger monetary writing on contracts and money related motivating forces, known as agency hypothesis (Milgrom and Roberts 1992; Pratt and Zeckhauser 1985; Sappington 1991). The pith of motivating force contracting is the exertion by one individual or association the central to prompt and reward certain practices by another the specialist. Money related prizes are stand out, but an imperative one, among an assortment of instruments for inspiring the coveted conduct (Farmer et al., 2006).

### **2.2.2 Stakeholder Theory**

Stakeholder hypothesis was initially created by Freeman (1984) as an administrative instrument. It concentrates on balance of partner interests as the fundamental determinant of corporate strategy. It focuses on the interconnected relationship between a business, its clients, providers, representatives, financial specialists, groups and other people who have a stake in the association. A partner can be characterized

as any gathering or person who is influenced by or can influence the accomplishment of an association's destinations.

The stakeholder theory ensures that organizations are held accountable to their stakeholders. There are three aspects to the theory: instrumental power which creates a framework for checking the connection between the stakeholder management and the success of a corporation's performance, descriptive accuracy used to describe particular corporation's behaviors and normative validity which interprets the purpose of the companies.

Hospitals should be accountable to the patients at all times. They are expected to provide efficient and quality healthcare. All the services offered should be up to per. If hospitals are not held accountable by patients, then their services will deteriorate

### **2.3 Determinants of Performance of Accredited Hospitals**

Performance can be defined as the execution of activities and the attainment of results through these activities. The main determinants of performance in NHIF accredited hospitals are namely: quality of service, management process, human resources, clinical and non-clinical support services

#### **2.3.1 Quality of Service**

Every healing facility ought to have a characterized range and volume of administrations it will offer to a particular populace. The nature of administrations gave ought to be quantifiable against regular scales for examination and equipped for being cost. Universal Organization for Standardization (ISO Standards) confirmation measures healing center execution as far as consistence with worldwide benchmarks for quality frameworks. According to Maxwell (1992), there are six dimensions to



quality namely: efficiency, accessibility, effectiveness, equitable, acceptability and safety.

Efficiency involves conveying human services in a way which augments utilize of resources, accessibility involves conveying human services that will be that is opportune, geologically sensible and gave in a setting where abilities and assets are fitting to medicinal need, effectiveness ensures the service provided fits the needs of the people being served, equitable ensures delivery of health care which doesn't discriminate against sexual orientation, race, ethnicity, land area or financial status. Acceptability ensures an administration situated towards the purchaser as far as decision, security and individual service whereas safety ensures delivery of social insurance which minimizes dangers and mischief to the administration clients.

Furthermore, quality in health care shows a good interpersonal relationship between the health care provider and the service user who in this case is the patient. Examples of quality initiatives include: measuring mortality, adequacy of prescriptions, infection rates and readmission rates to hospitals.

### **2.3.2 Management Process**

Each health care institution requires an individual who will be responsible for running the institution on a day to day basis, making the final decision and accepting responsibility for a achieving a certain outcome. The responsible person, either known as the Chief executive or the Director is the head of the management process through which the hospital controls and reviews its performance. He/she acts as the organization's intelligence as well as an important link with the policy makers e.g. hospital board. The Director/Chief executive should be able to join qualities into

execution discussions and audits, and help workers set objectives in view of their qualities.

The management approach should be open but disciplined communication, working as a team, strong corporate including financial, accountability, loyalty, and an action centered approach to performance. Great Directors/Chief executives have the right abilities for supporting, situating and connecting with their staff. They engage representatives to decide, perceive or adulate worker accomplishments, think about their representatives and have standard and open correspondence with workers.

### **2.3.3 Human Resource**

All hospitals require a reliable human resource to be able to run it efficiently. The challenge however is in creating a balance between the recruitment and retention of appropriately qualified staff with the changing demands for the services provided and the available resources. Regular trainings should be carried out for the health professionals to keep them appraised with new technology and knowledge. With insufficient doctors or nurses, it is impossible to have good hospitals.

Recruitment, retention and rewards is a very delicate balancing act which requires specialized human resource expertise to ensure that there is a balance between supply and demand. In many developing countries, even where sufficient training is provided, hospitals struggle to retain the necessary skill set as they cannot compete with developed countries in terms of remuneration and working conditions. To retain such manpower, governments should step in and ensure that health care professionals are well compensated.

### **2.3.4 Clinical and Non-Clinical Support Services**

Clinical support services include pharmacy, radiology and pathology. These services are often undermanaged and not properly accounted for. These services need to be responsive and readily available to the patients. Without proper clinical services the performance of a hospital will be poor because these are the main services offered (Nerenz and Neil, 2001).

Non-clinical support services can be referred to as 'hotel services' such as catering, maintenance, portering and security. These services can also be used to measure the performance of a hospital. There is a potential threat of neglect here which may lead to ineffectiveness.

## **2.4 Empirical Review**

Part will cover the review of empirical research that conducted in relation to topic under study.

### **2.4.1 International Evidence**

In capitation installment frameworks, GPs are paid for every patient on their rundown, for the most part with alterations for elements, for example, age and sexual orientation. As per OECD, these frameworks are utilized as a part of Italy (with a few expenses), in every one of the four nations of the United Kingdom (with a few charges and recompenses for particular administrations), Austria (with charges for particular administrations), Denmark (33% of wage with leftover portion charge for administration), Ireland (since 1989), the Netherlands (charge for-administration for secretly guaranteed patients and open workers) and Sweden (from 1994). Capitation installments have turned out to be more incessant in oversight human services situations in the United States.

Capitation frameworks permit funders to control the general level of essential wellbeing consumptions, and the portion of financing among GPs is dictated by patient enlistments. In any case, under this approach, GPs may enroll excessively numerous patients and under-serve them, select the better dangers and allude on patients who could have been dealt with by the GP straightforwardly. Opportunity of purchaser decision over specialists, combined with the rule of cash taking after the patient may direct some of these dangers. Beside determination, these issues are probably going to be less set apart than under compensation sort courses of action (Simmons, 2009).

Expense for administration game plans won as the favored vehicle for financing social insurance administrations since World War II. As bosses offered medical coverage, premiums were altered in a manner that most patients did not shoulder the full cost of their medicinal services. As manager premiums rose to meet the heightening expense of human services administrations, endeavors by government, business and the protection business concentrated on controlling use and decreasing medicinal services cost (Cox, 2001). Bunch wellbeing cooperatives were framed as early antecedents of the current wellbeing upkeep association. As oversaw social insurance turned out to be more across the board, techniques for cost regulation turned out to be more pervasive by characterizing restorative need, scope strategies, hone rules, work on profiling, and hazard sharing courses of action. Capitation, as a strategy for hazard sharing gave new moral difficulties in therapeutic basic leadership. Charge for administration repayment introduced moral difficulties by guaranteeing repayment for use of administrations and systems that were requested for the medical advantage of the patient. Monetary back up plan brings about the money related hazard and cost of a charge for administration framework. These expenses were normally moved to the

buyers of human services administrations, for example, businesses and the legislature (Cox, 2010).

Capitation courses of action represent a moral test through the hazard sharing model of empowering monetary motivation by means of decreased use of administrations, to the money related event of the doctor and the oversight human services association that share the hazard. While some praise the natural motivator inside the capitation chance sharing framework to build proficiency and lessen over-use of assets, others propose that there exists inside a capitation framework the tricky impetus to under treat patients and maintain a strategic distance from patients with interminable or outrageous illness (Altman, 2003).

Enactment basically at the state level has endeavored to invalidate a portion of the more conspicuous transgressions that oversight social insurance frameworks have postured, for example, choke provisos in contracts, and necessities of financial credentialing by doctor's facilities and human services arranges (Harold, 2009). These administrative endeavors have met with constrained achievement. As a general public, we have a privilege to figure out what measure of total national output (GDP) ought to be dispensed to social insurance by the buy of private protection with premium dollars, and the assignment of assessment income for the medicinal services of penniless subjects.

Capitation can affect the delivery of health care services by influencing individual provider decisions, by fostering innovation in disease management, and by encouraging integration of various components of the health delivery system. Physicians vary widely in their use of diagnostic tests, choice of medication, and therapeutic procedures (Vinten-Johansen, Peter, et al. 2003).

The variation in practice style does not necessarily mean that one provider is appropriate and the other is inappropriate. Mirvis suggests that the differences between providers more likely are due to the uncertainty of outcomes and disagreement about the preferred course of action. On the continuum of resource utilization, there is a range of uncertainty that allows for differences in practice style. Outside this range lies practice patterns more clearly agreed by all as underutilization and overutilization. One of the obvious influences that affect physician decision and resource utilization is financial incentive. Specialty capitation places the responsibility of determining the acceptable range of practice in the hands of the physicians rather than the managed health care insurance company. Financial incentives can be aligned to avoid both underutilization and overutilization. Narrowing the range of uncertainty and acceptable practice pattern is better left to basic research in clinical science and outcomes (Sanderson, Colin Gruen and Reinhold 2006).

Quiet training is a basic part of the patient-focused therapeutic home and is an intense and successful apparatus in incessant infection administration. Pearson, King and Richards (2013) did a study on capitated installments to essential care suppliers and the conveyance of patient instruction. For this study, they took information from the 2009 National Ambulatory Medical Care Survey. This was a cross-sectional examination of patient visits to essential care suppliers to figure out if rehearse installment as capitated installments was related inside patient instruction being incorporated all the more every now and again amid office visits contrasted and other installment techniques. The study inferred that patients will probably get instruction if their essential care suppliers get principally capitated installment. This affiliation is by and large imperative for wellbeing policymakers developing installment systems for patient populaces who might most profit by intercessions that consolidate or rely on

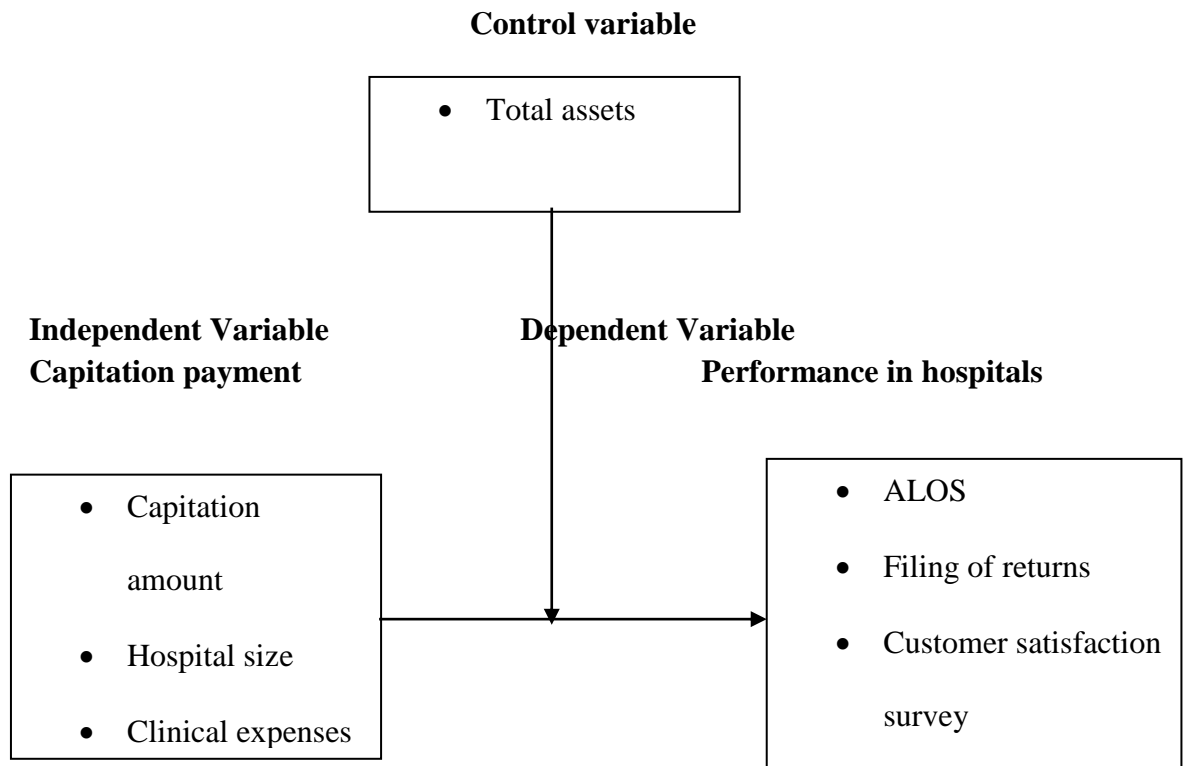
upon patient training, for example, populaces requiring administration of unending maladies (Pearson, 2013).

#### **2.4.2 Local Evidence**

Gwaro (2014) carried out an assessment of factors affecting implementation of capitation programme in health care provision of services in Nairobi County accredited health facilities. Specifically, to examine the impact of government related factors e.g. accreditation of facilities and budgetary allocations on the levels of implementation of capitation programme in the provision of health care in Kenya, to investigate the influence of patient related factors e.g. forgery, magnitude of the claim on the levels of implementation of capitation programme in health care provision of in Kenya, to examine the impact of service provider related factors on the levels of implementation of capitation programme in health care provision of in Kenya and to find out influence of management related factors on implementation of capitation programme in health care provision in Kenya.

Study concluded the factors affecting the levels of implementation of capitation include: government stewardship, political inclination, financing the programme, ignorance, reluctance and resistance, employment member contracts, types of ailment and self-ego. Others are non- adherence, lack of transparency. The study therefore recommends adoption an all-inclusive approach in the a credential process, accredited centers should be published and frequent audit of patient records to be carried out, establishment of an accrediting committee, set aside enough funds, education on employees, set up a board of trustee and set minimum standards for accredited centers (Gwaro, 2014).

## 2.5 Conceptual Framework



**Figure 2.1: Conceptual Framework**

## 2.6 Summary of Literature Review

Literature review encompasses the theories to be reviewed and how different authors view capitation as a mode of payment. It looks at the determinants of performance in NHIF accredited hospitals as well as the empirical review. The literature review looks at the conceptual framework which shows the relation among both variables.



## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

Part articulates methodology. It depicts design study, populace research, design sampling, analyzing and presenting data.

#### **3.2 Research Design**

Is an arrangement for gathering and using information so that coveted data can be gotten with adequate exactness (Miles and Huberman, 2004)? The research design that was used is descriptive study Enlightening examination alludes to an arrangement of strategies and methodology that depict factors. Distinct studies depict these factors by noting who, what, why and how addresses. These sorts of research studies may portray customers' dispositions, aims, and practices, or the quantity of contenders and their techniques.

#### **3.3 Population**

Concentrate on populace is an investigation of a gathering of people taken from the all-inclusive community who share a typical trademark, for example, age, and sex. Target populace about which data is coveted for the study is gotten from the populace. The populace that is really studied is the study populace (Mugenda and Mugenda, 1999). The objective populace of research was all NHIF accredited hospitals in Kenya. The population was 1,600 (NHIF 2015).

#### **3.4 Sampling**

According to (Mugenda and Mugenda, 1999) the rule of the thumb should be to obtain as big a sample as possible. However, resources and time tend to be major constraints in deciding on the size of the sample to use. Thus, as a matter of cost

effectiveness in terms of labor, time and finances, the researcher selected a sample of 5% on the basis of stratified random sampling. The sample size was 80 accredited hospitals.

### **3.5 Data Collection Methods**

This alludes to the instruments to be utilized for gathering information and how these devices were produced. Collection of data used primary and secondary. Primary data is the first-hand information obtained from respondents through questionnaires. The data tools utilized data collection from selected participant's questionnaires and interview schedule. Choice of these devices was guided by the way of information to be gathered, time accessible and goals of the study. The surveys comprised of both open and shut finished inquiries intended to evoke particular reactions for subjective and quantitative examination separately. They were directed by "drop and pick later" method and adequate time will be given for the respondent to answer questions. The questionnaire utilized 5 point Likert scale namely (SA), (A), (N), Disagreed and (SD) which were assigned scores of between 1 and 5. This allowed the researcher reach inferences in view of examinations produced using the reactions. The questionnaires were administered to hospitals and customers seeking services at the hospital.

Auxiliary information alludes to data that as of now exists and which has been gathered for some other reason. The secondary data will be obtained from NHIF publications and financial statements.

### **3.6 Data Processing and Analysis**

Analyzing data is process of creating request, structure and intending to the mass of data gathered (Mugenda, 2003). The data collected was analyzed using descriptive statistics. Illustrating estimations is the prepare of quantitatively portraying the rule

parts of a social affair of data which gives direct blueprints about the case and about the observations that have been made (Dodge, 2003). Illustrating estimations utilized include frequencies tables and percentages. Graphs and charts were also used to analyze data.

The relationship between individual independent variables; return on assets, hospital size and clinical expenses was established through Pearson correlation analysis. While the relationship between the independent and dependent variable was established using regression analysis.

The regression model was described as follows:

$$Y = \alpha + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \epsilon$$

Where;

Y= Performance in NHIF accredited hospitals - which will be measured using return on assets.

$\alpha$  = Constant term

$\beta_1, \beta_2, \beta_3, \beta_4$  - Coefficients

$x_1$  = Capitation amount (log capitation amount)

$x_2$  = Hospital size (log of total assets)

$x_3$  = Clinical expenses (log of clinical expenses)

$\epsilon$  - Error term.

### **3.7 Test of Significance**

The study considered a 5% level of significance. The coefficient of determination, denoted as  $R^2$  was used to indicate how well data fit into the statistical model. F-statistics was used to undertake further test. (ANOVA) tests utilized in analysis of experimental data to test the variables for statistical significance.

## CHAPTER FOUR

### DATA ANALYSIS AND PRESENTATION OF FINDINGS

#### 4.1 Introduction

Part shows findings and analysis of research. General goal of research establishes relation among capitation payment and execution in NHIF accredited hospitals. The data was gathered from the secondary source records of the NHIF accredited hospitals and primarily from the respondents in these hospitals.

##### 4.1.1 Response Rate

**Table 4.1: Response Rate**

<b>Respondents</b>	<b>Frequency</b>	<b>Percentage</b>
Response	64	80
Non-Response	16	20
<b>Total</b>	<b>80</b>	<b>100</b>

Unmistakably research focused on an example size of 80 hospitals from which 64 filled in and gave back the surveys making a reaction rate of 80%. This reaction rate was acceptable to make conclusions on the relation between capitation payment and performance in NHIF accredited hospitals.

## 4.2 Demographic Statistics

### 4.2.1 Managers in NHIF Accredited Hospitals Information

#### 4.2.1.1 Hospital Categories

**Table 4.2: Hospital Categories**

Hospital Categories	Frequency	Percentage
Government	19	30
Mission	8	13
Private	37	58
<b>Total</b>	<b>64</b>	<b>100</b>

It was established that there were 37 private hospitals represented by 58%, 19 government hospitals represented by 30% and 8 mission hospitals represented by 13%. These hospitals were used in the study.

#### 4.2.2 Time of NHIF Accreditation

**Table 4.3: Time of NHIF Accreditation**

Hospital Categories	Frequency	Percentage
0-1 year	4	6
2-5 years	38	59
6 years and above	22	34
<b>Total</b>	<b>64</b>	<b>100</b>

It was established that the hospitals had been accredited as NHIF facility for adequate time as represented by 59% (38) which had been operating for between 2-5 years, 34% (22) had been operating for over 6 years while 6% (4) had only been operating for one year and less.

#### 4.2.3 Frequency of Filing Returns

**Table 4.4: Frequency of Filing Returns**

Frequency of Filing Returns	Frequency	Percentage
Quarterly	64	100
<b>Total</b>	<b>64</b>	<b>100</b>

It was established that all the hospitals file the returns quarterly and this shows the utilization of capitation funds.

#### 4.2.4 Average Length of Patient Stay in the Hospital

**Table 4.5: Average Length of Patient Stay in the Hospital**

<b>Respondents</b>	<b>Frequency</b>	<b>Percentage</b>
2 days	22	34
4 days	11	17
1 week	24	38
2 weeks	7	11
<b>Total</b>	<b>64</b>	<b>100</b>

It was established that most of the patients stay in the hospitals for an average of 1 week as represented by 38% (24) respondents., 34% (22) of the respondents stay for an average of 2 days, 17% (11) stay for an average of 4 days while 11% (7) stay for an average of 2 weeks.

#### 4.2.2 Patient Satisfaction Survey Information

##### 4.2.2.1 Gender of the Respondents

**Table 4.6: Gender of the Respondents**

<b>Respondents</b>	<b>Frequency</b>	<b>Percentage</b>
Male	33	52
Female	31	48
<b>Total</b>	<b>64</b>	<b>100</b>

The study established that many participants were male (52%) female participants 48% of the sample. Both genders were in the research.

#### 4.2.2.2 Level of Education of the Respondents

**Table 4.7: Level of Education of the Respondents**

<b>Respondents</b>	<b>Frequency</b>	<b>Percentage</b>
Secondary Form Four	13	20
Certificate	11	17
Diploma	23	36
Graduate	9	14
Masters	6	9
PHD	2	3
<b>Total</b>	<b>64</b>	<b>100</b>

On the respondents' level of education, it was established that most of the respondents had diploma qualification as represented by 36%, 20% had secondary Form Four level of education, 17% had certificate level of education, 14% were graduates, 9% had Masters qualification while 3% had PHDs.

#### 4.2.2.3 Age of the Respondents

**Table 4.8: Age of the Respondents**

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Below 20 years	4	6
20 - 29 years	16	25
30-39 years	21	33
40 -49 years	14	22
50-59 years	6	9
60-69 years	2	3
Above 70 years	1	2
<b>Total</b>	<b>64</b>	<b>100</b>

On the age of the respondents, it was established that 33% were aged 30-39 years, 25% were aged 20-29 years while 22% were aged 40-49 years. It was further established that 9% were aged 50-59 years, 6% were below 20 years, 3% were 60-69 years while 2% were aged above 70 years.



#### 4.2.2.4 Period of Being a Patient in the Hospital

**Table 4.9: Period of Being a Patient in the Hospital**

<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Less than one year	12	19
1-4 years	26	41
5-9 years	21	33
10 years and above	5	8
<b>Total</b>	<b>64</b>	<b>100</b>

Most of the respondents were patients in the hospital for 1-4 years as represented by 41% of the respondents, 33% had been patients for 5-9 years, 19% had been patients in the hospital for less than one year while 8% had been patients for 10 years and above.

#### 4.2.2.5 Number of Visits in the Hospital for Medical Care

**Table 4.10: Number of Visits in the Hospital for Medical Care**

<b>Number of Visits in the Hospital</b>	<b>Frequency</b>	<b>Percentage</b>
1	16	25
2	31	48
3	12	19
4	3	5
5	2	3
<b>Total</b>	<b>64</b>	<b>100</b>

It was established that 48% of the respondents had visited the hospital twice, 25% had visited the hospital once, 19% had visited the hospital thrice, 5% had visited 4 times while 3% had visited the hospital 5 times in the past 1 year. This is an indication of how often the patients frequented the hospital for medication.

### 4.3 Descriptive Statistics

In section 4.3 the study presents the research findings on the descriptive statistic in the data collected.

#### 4.3.1 Hindrances to Implementation of Capitation Mode of Payment

**Table 4.11: Hindrances to Implementation of Capitation Mode of Payment**

	Mean	Standard Deviation
Political Interference is a major setback in the implementation of capitation mode of payment in the provision of health services	3.69	0.14
Inadequate information on the operation and implementation process of capitation mode of payment is a hindrance in the provision of health services	3.64	0.16
Budgetary allocations are a setback in the implementation of capitation mode of payment in provision of health services.	3.80	0.17
Accrediting of facilities to provide health services is hindrance in the provision of health services	4.00	0.22
Bureaucracies in government agencies is a major hindrance in the provision of health care through capitated mode of payment	4.17	0.22

Means and standard deviations were used to analyze the responses. The results reported above imply that bureaucracies in government agencies is big hindrance (M=4.17, S=0.22), accreditation of facilities is a hindrance in health provision services (M=4.00, S=0.22), budgetary allocations are a setback in the implementation of capitation mode of payment (M=3.80, S=0.17), political interference is a major setback in the implementation of capitation mode of payment in the provision of health services (M=3.69, S=0.14) and inadequate information on the operation and implementation process of capitation mode of payment is a hindrance in the provision of health services (M=3.64, S=0.16).

### 4.3.2 Patient Related Factors Affecting the Implementation of Capitation Payment

**Table 4.12: Patient Related Factors Affecting the Implementation of Capitation Payment**

	Mean	Standard Deviation
Illiteracy among the patients is a hindrance to provision of healthcare through capitated methods	3.86	0.16
Ignorance of the patients on the capitation payments in health	3.95	0.17
Cultural beliefs of the patients hinder the deliverance of health services through capitated mode of payment	2.28	0.16
Lack of employment among patients is a hindrance to the rolling out of capitated mode in provision of health services	4.31	0.23

On the patient, related factors affecting the implementation of capitation payment in the provision of healthcare it was seen that lack of employment among patients is a hindrance to the rolling out of capitation mode in health provision service as represented by aggregate 4.31. It was agreed that ignorance of the patients on the capitation payments in health was a hindrance in provision of healthcare as represented by a mean of 3.95 and illiteracy among the patients was a hindrance to provision of healthcare through capitated methods as represented by a mean of 3.86. Finally, cultural beliefs of the patients hinder the deliverance of health services through capitated mode of payment as represented by a mean of 2.28.

### 4.3.3 Importance of the Health Insurance Provision in Kenya

**Table 4.13: Importance of the Health Insurance Provision in Kenya**

	Mean	Standard Deviation
Insurance coverage has enabled Kenyans to access health services more readily and easily	3.80	0.14
Insurance covers has reduced the levels of costs of accessing health services	4.06	0.19
Insurance covers have enabled more patients to access quality of services	3.91	0.17

On the importance of the health insurance provision in Kenya it was agreed that insurance covers have reduced the levels of costs of accessing health services as depicted by aggregate 4.06, insurance covers have enabled more patients to access quality of service as represented by a mean of 3.91 and insurance coverage has enabled Kenyans to access health services more readily and easily as represented by a mean of 3.80.

### 4.3.4 Information Regarding the Care Provided to the Patients

**Table 4.14: Information Regarding the Care Provided to the Patients**

	Mean	Standard Deviation
It is easy to make an appointment with the hospital	2.44	0.14
Waiting time is very short	2.28	0.16
K2Follow up information and care is readily available	2.48	0.15
The hospital has sufficient infrastructure to support health service delivery through capitation mode of payment	3.00	0.15
The organizational bureaucracy in the hospital is not a hindrance in provision of healthcare through capitated mode of payment	2.53	0.15
The lack of specialists is a hindrance to provision of services through capitation of payment.	3.75	0.15
The services offered were excellent	2.86	0.13

On the information regarding the care provided to the patients it was agreed that the lack of specialists is a hindrance to provision of services through capitation of payment as depicted by aggregate 3.75. Participants were neutral that the hospital has sufficient infrastructure to support health service delivery through capitation mode of payment as depicted by aggregate 3.00 and that the services offered were excellent depicted by aggregate 2.86. The respondents disagreed that the organizational bureaucracy in the hospital is not a hindrance in provision of healthcare through capitated mode of payment as represented by a mean of 2.53, follow up information and care is readily available as represented by a mean of 2.48. Finally, it was disagreed that it is easy to make an appointment with the hospital as represented by a mean of 2.44 and that waiting time is very short as represented by a mean of 2.28.

#### 4.4 Correlation Analysis

**Table 4.15: Correlation Analysis**

Correlations					
		ROA in NHIF accredited hospitals	Capitation amount	Hospital size (Total Assets)	Clinical expenses
ROA in NHIF accredited hospitals	Pearson Correlation	1	.715**	.864**	.659**
	Sig. (2- tailed)		0.000	0.001	0.000
	N	10	10	10	10
Capitation amount	Pearson Correlation	.715**	1	.214	.347
	Sig. (2- tailed)	0.000		0.353	0.292
	N	10	10	10	10
Hospital size	Pearson Correlation	.864**	.214	1	.684**
	Sig. (2- tailed)	0.001	0.353		0.001
	N	10	10	10	10
Clinical expenses	Pearson Correlation	.659**	.347	.684**	1
	Sig. (2- tailed)	0.000	0.292	0.001	
	N	10	10	10	10

\*\* Correlation is significant at the 0.01 level (2-tailed).

On relation of research factors, the scientist directed a Pearson connection. From the discoveries on the connection investigation between performance in NHIF accredited hospitals and capitation amount, hospital size and clinical expenses. The research was burly positive relation among capitation amount and performance in NHIF accredited hospitals depicted connection coefficient 0.715. Research showed there was a strong positive relationship among hospital size and performance in NHIF accredited hospitals depicted connection coefficient 0.864. Research showed there was strong positive relationship among clinical expenses and performance in NHIF accredited hospitals as shown by a correlation coefficient of 0.659.

#### 4.5 Regression Analysis

In this section the study presents the research findings on relation among various independent factors on model and financial performance.

**Table 4.16: Regression Analysis Model**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.824 <sup>a</sup>	.678	.657	.26507

a. Predictors: (Constant), Capitation amount, total assets, clinical expenses

From the table above, R is the connection coefficient which demonstrates the relationship between the study factors, from the discoveries appeared in the table above there was a solid positive relationship between the study factors as appeared by R 0.824 at 5% centrality level. The Adjusted R squared is coefficient of assurance which lets us know the variety in the needy variable because of changes in the autonomous variable, from the discoveries in the table over the estimation of balanced R squared was 0.657 a sign that there was variety of 66% on performance in NHIF accredited hospitals due to changes in capitation amount, total assets and clinical expenses at 95% certainty interim. 66% of the changes in performance in NHIF accredited hospitals could be accounted for by the independent variables.

**Table 4.17: ANOVA**

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	96.445	3	32.148	24.748	.012b
	Residual	77.965	60	1.299		
	Total	174.410	63			

a. Dependent Variable: ROA in NHIF accredited hospitals

b. Predictors: (Constant), Capitation amount, total assets and clinical expenses

From the prepared information, which is the populace parameters, had a hugeness level of 1.2% which demonstrates that the information is perfect for making a conclusion on the populace's parameter as the estimation of noteworthiness (p-

esteem) is under 5%. The F basic at 5% importance degree, 3d. f, 60 d.f was 2.758, while F computed was 24.748, since F computed is more prominent than the F basic (esteem = 2.758), this demonstrates the general model was huge.

**Table 4.18: Regression Model**

Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.951	.713		4.139	.000
Capitation amount	11.154	1.347	10.671	8.281	.017
Total assets	0.126	.038	0.254	3.316	.037
Clinical expenses	4.513	1.262	4.158	3.576	.033

a. Dependent

Variable: ROA

$$Y = 2.951 + 11.154 X_1 + 0.126 X_2 + 4.513X_3$$

From equation above found clinging capitation amount, hospital size and clinical expenses to a constant zero, return on assets would be 2.951. Increasing unit capitation amount causes improvement return on assets by 11.154 units. Increasing unit hospital size causes improvement of return on assets 0.126 units and increasing unit in clinical expenses causes improvement on return on assets by 4.513 units.

5% significance degree 95% confidence level, capitation amount 0.017 significance degree; clinical expenses had 0.033 significance degree while hospital size 0.037 significance level. Every factor was huge ( $p < 0.05$ ).



#### **4.6 Discussions of Findings**

Research recognized burly positive relation among capitation amount and performance in NHIF accredited hospitals as shown by a correlation coefficient of 0.715. Capitation can affect the delivery of health care services by influencing individual provider decisions, by fostering innovation in disease management, and by encouraging integration of various components of the health delivery system. Physicians vary widely in their use of diagnostic tests, choice of medication, and therapeutic procedures (Vinten-Johansen, Peter, et al. 2003).

The research showed burly positive relation among hospital size and performance in NHIF accredited hospitals as shown by a correlation coefficient of 0.864. Harold (2009) established that the size of the hospital in terms of the assets will influence the performance of the hospital since big hospitals enjoy economies of scale and thus are able to effectively implement the capitation amount policy. Also as hospitals expand and grow in size and complexity, planning issues on both cost as well as factor consideration on strategic positioning operations side become imminent thus affecting performance of the hospitals.

The study showed strong positive relation among clinical expenses and execution in NHIF accredited hospitals as shown by a correlation coefficient of 0.659. The findings were concurrent with Nerenz and Neil (2011) findings that clinical support services include pharmacy, radiology and pathology. These services are often undermanaged and not properly accounted for. These services need to be responsive and readily available to the patients. Without proper clinical services the performance of a hospital will be poor because these are the main services offered.

It was confirmed that illiteracy among the patients, ignorance and cultural beliefs of the patients hinder the deliverance of health services through capitated mode of payment. Pearson, King and Richards (2013) earlier came in to conclusion that understanding training is a basic segment of the implementation of capitated mode of payment. The study also concluded that patients will probably get instruction if their essential care suppliers get basically capitated installment. This affiliation is by and large imperative for wellbeing policymakers building installment methodologies for patient populaces who might most profit by mediations that fuse or rely on upon patient training, for example, populaces requiring administration of constant maladies.

It was reputable that political Interference, inadequate information on the operation and implementation process of capitation mode of payment, budgetary allocations and accrediting of facilities to provide health services are a hindrance in the provision of health services. Gwaro (2014) who carried out an assessment of factors affecting implementation of capitation programme in provision of the health care services in Nairobi County accredited health facilities established bureaucracies in government agencies is big hindrance in health care provision through capitated mode of payment. Also, government stewardship, political inclination, financing the programme, ignorance, reluctance and resistance, employment member contracts, non- adherence and lack of transparency were seen as major hindrances in the provision of health services.

## CHAPTER FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

Recommendations, discussions and conclusions are done. Researcher acknowledged relationship between capitation payment and performance in NHIF accredited hospitals.

#### 5.2 Summary

Research objective is determining relation among capitation payment and execution in NHIF accredited hospitals. On the connection of the study factors, the specialist directed a Pearson relationship. From the discoveries on the relationship investigation between performances in NHIF accredited hospitals and capitation amount, hospital size and clinical expenses. Research depicted positive relation among capitation amount and performance in NHIF accredited hospitals as shown by a correlation coefficient of 0.715. Research showed there was strong direct relationship among hospital size and performance in NHIF accredited hospitals depicted by coefficient of 0.864. Research further showed there was a strong direct relationship among clinical expenses and performance in NHIF accredited hospitals as shown by a correlation coefficient of 0.659. Hence all the objectives had a strong position relationship with asset return as gauge of execution

There was a solid positive relationship between the study factors as appeared by R 0.824 at 5% essentialness level. The Adjusted R squared is coefficient of assurance which lets us know the variety in the reliant variable because of changes in the free factor, from the discoveries in the table over the estimation of balanced R squared was 0.657 a sign that there was variety of 66% on performance in NHIF accredited

hospitals due to changes in capitation amount, total assets and clinical expenses at 95% certainty interim. 66% of the changes in performance in NHIF accredited hospitals could be accounted for by the independent variables. The F critical at 5% level of significance, 3 d.f, 60 d.f was 2.758, while F computed was 24.748, since F computed is more prominent than the F basic (esteem = 2.758), this demonstrates the general model was noteworthy.

From regression equation, it was found that holding capitation amount, hospital size and clinical expenses to a constant zero, return on assets would be 2.951. Increasing unit capitation amount leads improvement of return on assets by 11.154 units. Increasing unit hospital capacity hence improvement of return on assets 0.126 units and increasing unit in clinical expenses prompts improvement on return on assets by 4.513 units. 5% significance degree and 95% confidence degree, capitation amount had a 0.017 significance degree; clinical expenses had 0.033 significance degree while hospital size 0.037 significance degree. All factors were noteworthy ( $p < 0.05$ ).

### **5.3 Conclusions**

Bureaucracy in government agencies was the major hindrance in the provision of health care through capitated mode of payment. Lack of employment among patients was the major hindrance to the rolling out of capitated mode in provision of health services. Insurance covers has reduced the levels of costs of accessing health services and lack of specialists is a hindrance to provision of services through capitation of payment. Budgetary allocations are a setback in the implementation of capitation mode of payment in provision of health services. Illiteracy among the patients and ignorance of the patients is a hindrance to provision of healthcare through capitated methods. Capitation amount, hospital size in terms of the total assets and clinical expenses did affect the performance of the NHIF accredited hospital.

#### **5.4 Policy Recommendations**

Research sought determining relation among capitation payment and execution in NHIF accredited hospitals. The study recommends;

The government through the Ministry of Health and the National Treasury should ensure that they allocate enough funds to the ministry. The Ministry of Health should ensure that it has enough funds through the NHIF fund to ensure the implementation of capitation mode of payment in provision of health services.

Government through Health ministry of should educate citizens on the importance of enrolling with the NHIF and also remove political interferences and the bureaucracies in government agencies which are big hindrance in health care provision through capitated mode of payment

Since capitation payment in particular has imperative ramifications on market structure and aggressive conduct among suppliers' liable to capitation installment motivating forces it is essential that the administration comprehends and can suspect these suggestions with a specific end goal to outline fitting strategies and vital directions.

#### **5.5 Limitations of the Study**

Research on hospitals that provide NHIF services.

The study was limited to secondary data for the year ending 2015 for the hospitals that formed part of our response in the study. Information was obtained from the hospitals audited accounts, nonetheless encounter negativity in its computations.

The respondents approached were reluctant in giving information fearing that the information sought would be used to intimidate them or print a negative image about them or the hospital. Some respondents turned down the request to fill questionnaires.

### **5.6 Suggestions for Further Study**

Research determine the relation among capitation payment and performance in NHIF accredited hospitals. A study can be done on the hindrances to implementation of capitation mode of payment in NHIF accredited hospitals.

The current study targeted all the hospitals that were grouped as public hospitals, mission and the private hospitals. A study can be done on each group of hospitals at a particular time and compare the results.

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## APPENDICES

### Appendix I: Questionnaire for the Managers in NHIF Accredited Hospitals

#### SECTION A: GENERAL INFORMATION

1. What category is your hospital?  
 Government                                  Mission                                  Private
2. How long have you been an NHIF accredited facility?  
 0-1 year                                            2-5 years                                  +6    years
3. How often do you file your returns?  
 Monthly                       Quarterly                       Bi-annually                       Yearly
4. What is the average length of stay?  
 2 days                       4 days                       1 week                       2 weeks

#### SECTION B: PERFORMANCE

5. To what extent do you agree with the following statements:  
 Key SA- Strongly Agree (5), A –Agree, (4) UD – Undecided (3), D – Disagree  
 (2), SD – Strongly Disagree (1)

	SA	A	UD	D	SD
Political Interference is a major setback in the implementation of capitation mode of payment in the provision of health services					
Inadequate information on the operation and implementation process of capitation mode of payment is a hindrance in the provision of health services					
Budgetary allocations are a setback in the implementation of capitation mode of payment in provision of health services.					
Accrediting of facilities to provide health services is hindrance in the provision of health services					
Bureaucracies in government agencies is a major hindrance in the provision of health care through capitated mode of payment					

6. To what extent do you agree with the following statements on patient related factors affecting the implementation of capitation payment in provision of health insurance in Kenya?

Key SA- Strongly Agree, A –Agree UD – Undecided, D – Disagree, SD – Strongly Disagree

	<b>SA</b>	<b>A</b>	<b>UD</b>	<b>D</b>	<b>SD</b>
Illiteracy among the patients is a hindrance to provision of healthcare through capitated methods					
Ignorance of the patients on the capitation payments in health					
Cultural beliefs of the patients hinder the deliverance of health services through capitated mode of payment					
Lack of employment among patients is a hindrance to the rolling out of capitated mode in provision of health services					

7. To what extent do you agree with the following statements on health insurance provision in Kenya?

Key SA- Strongly Agree, A –Agree UD – Undecided, D – Disagree, SD – Strongly Disagree

	<b>SA</b>	<b>A</b>	<b>UD</b>	<b>D</b>	<b>SD</b>
Insurance coverage has enabled Kenyans to access health services more readily and easily					
Insurance covers has reduced the levels of costs of accessing health services					
Insurance covers have enabled more patients to access quality of services					

## Appendix II: Patient Satisfaction Survey

### SECTION A: GENERAL INFORMATION

1. What is your gender: Male  Female
  
2. What is your highest level of education?
 

Secondary Form Four <input type="checkbox"/>	Certificate <input type="checkbox"/>	Diploma <input type="checkbox"/>
Graduate <input type="checkbox"/>	Masters <input type="checkbox"/>	PHD <input type="checkbox"/>
  
3. Age in years?
 

Below 20 years <input type="checkbox"/>	50-59 years <input type="checkbox"/>
20 - 29 years <input type="checkbox"/>	60-69 years <input type="checkbox"/>
30-39 years <input type="checkbox"/>	
40 -49 years <input type="checkbox"/>	70+ <input type="checkbox"/>
  
4. How long have you been a patient of this hospital?
 

Less than one year <input type="checkbox"/>	1-4 years <input type="checkbox"/>	5-9 years <input type="checkbox"/>	10+ years <input type="checkbox"/>
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5. How many times have you visited this hospital for medical care in the past 1 year?
 

0 <input type="checkbox"/>	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
4 <input type="checkbox"/>	5 <input type="checkbox"/>	6 or more <input type="checkbox"/>	

### SECTION B: PERFORMANCE

We are interested in receiving your feedback about the care provided to you. Please take a few minutes to complete this survey and return to us.

	SA	A	UD	D	SD
7. It is easy to make an appointment with the hospital					
8. Waiting time is very short					

9. Follow up information and care is readily available					
10. The hospital has sufficient infrastructure to support health service delivery through capitation mode of payment					
11. The organizational bureaucracy in the hospital is not a hindrance in provision of healthcare through capitated mode of payment					
12. The lack of specialists is a hindrance to provision of services through capitation of payment.					
13. The services offered were excellent.					

### Appendix III: Hospital Secondary Data

No	Hospital	ROA	Log of C A	Total Assets (TA)'000	LOG of TA	Clinical Expenses (CE)	Log of CE
1.	ACK Mount Kenya Hospital	2.9	3.08	1,892,000	9.28	204,525,200	8.31
2.	Aga Khan Hospital	3.2	3.08	4,692,098	9.67	507,205,200	8.71
3.	A.I.C Kijabe Hospital	3.6	3.08	2,194,000	9.34	237,171,400	8.38
4.	Africare Limited (Medanta Hospital)	5.5	3.08	1,530,095	9.18	165,393,010	8.22
5.	Aic -Cure International Children's Hospital	7.7	3.08	1,648,705	9.22	178,224,471	8.25
6.	Beta Care Hospital Limited	6.2	3.08	656,806	8.82	71,000,080	7.85
7.	Bishop U Kioko Catholic Hospital	4.3	3.08	973,373	8.99	105,221,297	8.02
8.	Care Hospital	0.5	3.08	368,956	8.57	39,884,144	7.60
9.	Chiromo Lane Medical Hospital	5.8	3.08	1,297,271	9.11	140,205,700	8.15
10.	Coptic Hospital	4.7	3.08	2,513,725	9.40	271,733,132	8.43
11.	Embu Provincial Hospital	2.6	3.08	3,689,914	9.57	398,878,190	8.60
12.	Gatundu District Hospital	4.1	3.08	11,067,813	10.04	1,196,429,180	9.08
13.	German Medical Centre	2.9	3.08	3,665,148	9.56	396,186,500	8.60
14.	GertrudesChildrens Hospital	2.1	3.08	8,109,017	9.91	876,582,900	8.94
15.	Githunguri Hospital	2.5	3.08	3,667,926	9.56	396,499,990	8.60
16.	Guru Nanak Ramgarhia Sikh Hospital	4.8	3.08	1,596,279	9.20	172,527,600	8.24
17.	Immaculate Heart of Mary Hospital	4.1	3.08	1,894,981	9.28	204,838,690	8.31
18.	Isiolo District Hospital	4.6	3.08	1,461,266	9.16	157,934,100	8.20
19.	J. K. U. A. T. Hospital	4.5	3.08	2,008,128	9.30	217,077,772	8.34

20.	Kangundo District Hospital	2.3	3.08	3,330,648	9.52	360,037,860	8.56
21.	Kathiani Hospital Machakoes	0.8	3.08	1,849,926	9.27	199,974,190	8.30
22.	Kayole Hospital	4.9	3.08	1,445,284	9.16	156,226,120	8.19
23.	Karen Hospital	1.8	3.08	6,691,435	9.83	723,340,340	8.86
24.	Kenyatta National Hospital - KNH	3.3	3.08	58,331,226	10.77	6,305,581,100	9.80
25.	Kiambu District Hospital	2.4	3.08	16,778,446	10.22	1,813,701,800	9.26
26.	Kileleshwa Hospital	1.6	3.08	3,749,447	9.57	405,266,900	8.61
27.	Kitengela Hospital	1.8	3.08	3,339,226	9.52	360,945,900	8.56
28.	Kitui District Hospital	2.8	3.08	4,659,119	9.67	503,637,900	8.70
29.	Ladnan Hospital	2.3	3.08	4,400,904	9.64	475,737,290	8.68
30.	Limuru Nursing Home	2.7	3.08	1,535,844	9.19	166,019,980	8.22
31.	Lions Sight First Eye Hospital	5.8	3.08	491,446	8.69	53,077,100	7.72
32.	Machakoes Provincial General Hospital	1.3	3.08	8,950,129	9.95	967,507,972	8.99
33.	Madina Hospital Limited	4.2	3.08	1,713,635	9.23	185,240,160	8.27
34.	Magutuni District Hospital	1.4	3.08	1,314,147	9.12	142,054,210	8.15
35.	Makindu District Hospital	1.9	3.08	3,514,044	9.55	379,867,724	8.58
36.	Mariakani Cottage Hospital	2.5	3.08	3,475,582	9.54	375,710,198	8.57
37.	Maragua District Hospital	1.2	3.08	6,052,048	9.78	654,221,200	8.82
38.	Matuu Sub District Hospital	3.8	3.08	3,1680,255	9.49	335,110,000	8.53
39.	Mbagathi District Hospital	2.3	3.08	22,374,083	10.35	2,418,197,000	9.38
40.	Metropolitan Hospital	7.5	3.08	4,123,779	9.62	445,780,510	8.65
41.	Meru District Hospital	4.3	3.08	3,364,288	9.53	363,648,400	8.56
42.	Mother & Child Hospital	2.1	3.08	1,216,288	9.08	131,449,600	8.12
43.	M.p. Shah Hospital	5.5	3.08	5,130,188	9.71	554,553,000	8.74

44.	Mt. Kenya Hospital	4.1	3.08	4,651,366	9.67	502,805,530	8.70
45.	Mt. Sinai Hospital	1.3	3.08	1,746,461	9.24	188,792,326	8.28
46.	Mwingi Hospital	3.5	3.08	3,531,874	9.55	381,787,580	8.58
47.	Naidu Hospital	5.0	3.08	1,677,728	9.22	181,361,532	8.26
48.	Nairobi East Hospital Limited	6.8	3.08	3,394,558	9.53	366,891,400	8.56
49.	Nairobi Hospital	4.6	3.08	21,523,664	10.33	2,326,636,300	9.37
50.	Nairobi West Hospital	2.9	3.08	4,774,482	9.68	516,121,288	8.71
51.	Nairobi Women's Hospital	0.9	3.08	6,316,693	9.80	682,759,600	8.83
52.	Nazareth Hospital	7.2	3.08	1,272,137	9.10	137,514,010	8.14
53.	Outspan Hospital	3.7	3.08	3,129,272	9.50	338,274,087	8.53
54.	Pumwani Hospital	5.0	3.08	4,176,911	9.62	451,524,079	8.65
55.	Radiant Group of Hospitals	4.2	3.08	2,600,288	9.42	281,081,620	8.45
56.	Ruiru Private Hospital	2.3	3.08	1,107,892	9.04	119,762,909	8.08
57.	Ruiru Sub District Hospital	3.9	3.08	3,874,458	9.59	418,779,400	8.62
58.	Shalom Hospital	0.5	3.08	1,184,682	9.07	128,055,260	8.11
59.	S.S. League M.P Shah Hospital Nairobi	5.5	3.08	6,146,378	9.79	664,415,030	8.82
60.	St. Francis Community Hospital	3.4	3.08	2,114,136	9.33	228,538,102	8.36
61.	St. Mary's Hospital	5.4	3.08	9,927,681	10.00	1,073,108,700	9.03
62.	Thika Level 5 Hospital	4.0	3.08	11,690,746	10.07	1,263,764,670	9.10
63.	Umoja Hospital	2.5	3.08	1,556,268	9.19	168,225,220	8.23
64.	Woodlands Hospital Meru	0.8	3.08	2,381,946	9.38	257,487,714	8.41

**Note:**

ROA: Return on Assets

CA: Capitation amount which is Ksh 1,200

CE: Clinical Expenses

TA: Total Assets