# EFFECTIVENESS OF PURCHASING MECHANISMS IN ACHIEVING UNIVERSAL HEALTH: A CASE OF NATIONAL HOSPITAL INSURANCE FUND IN KENYA,2010-2018.

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## DECLARATION

This research project is my original work and has not been presented for a degree award in any other university or institution.

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This research project has been submitted for examination with my approval as the university supervisor.

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## DEDICATION

This work is dedicated to my wife Beatrice Nyaguthii, my mother Rose Wanja, and my father Richard Njoka.

## TABLE OF CONTENTS

## LIST OF TABLES

## LIST OF FIGURES

## LIST OF ABBREVIATIONS

**APO** Asia Pacific Observatory on Health Systems & Policies

**CDOH** County Department of Health

**FFS** Fees for service

**GDP** Gross Domestic Product

**GOK** Government of Kenya

**JNL** Joint learning Network

**KNBS** Kenya National Bureau of Statistics

**LMICs** Low and Middle-Income Countries

**MOH** Ministry of Health

**NHIFA** National Health Insurance Fund Administration

**NHIF** National Hospital Insurance Fund

**NCDs** Non-Communicable Diseases

**OECD** Organization for Economic Cooperation and Development

**OOPE** Out of Pocket Expenditure

**PFP** Pay for Performance

**RESYST** Resilient & Responsive Health Systems Consortium

**SHI** Social Health Insurance

**UHC** Universal Health Coverage

**UN** United Nations

**WHO** World Health Organization

# ABSTRACT

This study sought to understand how effective the current mechanisms used to purchase healthcare are in as far as the achievement of universal health coverage in Kenya is concerned. This was done through a case study of the National Hospital Insurance Fund between 2010 and 2018. The specific objectives of the study were to establish how efficient the mechanisms used by NHIF are in delivering quality care; to evaluate if the mechanisms promote equity and financial protection as well as determining if there are adequate mechanisms to promote transparency and accountability. NHIF staff, hospital officials and members of the public were interviewed across twenty-four branch offices. Findings reveal that the capitation and rebate mechanisms were found to promote access as well as equity of health services across populations but weak in providing quality care and offering financial protection to citizens. The fees for service and bundled mechanisms had key strengths in their ability to respond positively to customer care needs and in their ability to serve wide geographical areas as well as enabling access to quality care. However, they were only available to a small section of the population. The study also established presence of contractual arrangement between NHIF and hospitals although there was minimal enforcement. The study recommends the government repositions NHIF to be a strategic purchaser of health by increasing both the rebate and capitation rates, reviewing current benefit packages and adopting more efficient and cost-effective purchasing mechanisms that address the health needs of the population.

# CHAPTER ONE
# INTRODUCTION

This chapter includes the background of the study, the statement of the research problem, the research questions, and the corresponding objectives of the study. The chapter also covers the justification of the study, the scope of the study and limitations of the study as well as the outline of the study.

## 1.1 Background to the Study

The United Nation's Sustainable Development Goals[1] adopted in 2015 aim to ensure individuals are prosperous and experience peace by 2030 (UNDP 2015). The goals are integrated in that one decision in a particular area affects other outcomes elsewhere while at the same time ensuring balanced economic, social, and environmental sustainability.

Goal three endeavors to achieve healthy living and advance prosperity for all people irrespective of age. Having a healthy population is key to a country's development progress. Targets under goal three include: reducing to less than 70 per 100,000 live births the world's maternal deaths, ending deaths for children below 5 years which are preventable, ending epidemics and any communicable diseases and achievement of universal health coverage including quality vaccines and drugs that are safe for use, affordable in terms of prices and effective in treatment.

Achieving universal health coverage is therefore essential for any country aiming to achieve the SDGs. Universal health coverage, as defined by the World Health Organization (WHO), implies individuals everywhere have access to the services of health they require, in enough quality without exposing the user to financial difficulty (WHO, 2010). Many countries in Africa are already making strides towards full coverage of their population across the world as a way to achieve agenda 2030 as set by the United Nations[2] (Wagstaff & Neelsen, 2016).

One key component of achieving universal health coverage is health financing which comprises of revenue generation, pooling together resources and purchasing. However, raising enough resources and removing financial barriers is imperative but not enough. It must be

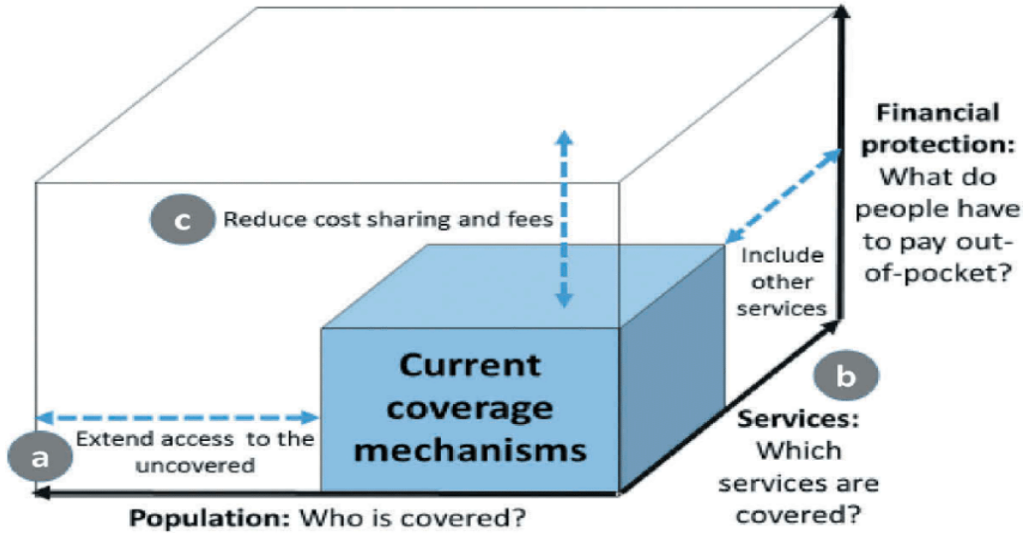
[1] Sustainable development goals: -Also called Global Goals were endorsed member countries of United Nations in the year 2015 as a global call to take action to end poverty and safeguard the globe for everyone to live peacefully.

[2] African countries which have universal health care- Rwanda, Ghana, Burkina Faso, Botswana, Mauritius, Tunisia, Eritrea, Namibia, Gabon, Seychelles, and Zambia.

accompanied by efficient use of resources (WHO, 2010). This therefore points to the importance of health purchasing as a key link between the resources pooled and delivery of quality services to the public in achieving universal health coverage (Savedoff et al, 2012).

For a country to measure its progress towards full health coverage, it must be seen to realize progressive policies under coverage; that is those who need health interventions actually receive and access them which encompasses physical accessibility and financial affordability. The figure below represents the three key aspects of Universal Health Coverage.

**Figure 1.1: Key aspects of Universal Health Coverage.**




**Source:** WHO 2010

There is limited empirical work on purchasing mechanisms particularly in countries with Low- and Middle-Income (LMICs) despite the critical role played by purchasing in health systems performance. In 2014, the Resilient and Responsive Health System Consortium (RESYST) undertook a multi-country research study together with the Asia Pacific Observatory on Health Systems and Policies (APO)[3]. The study aimed to examine critically, from a strategic perspective how purchasing mechanisms are functioning in select Low and Middle-Income Countries (LMICs). According to Ayako (2016), this was meant to contribute to fill the literature gaps relating to arrangements on health purchasing globally.

[3] "Strategic Purchasing for universal health coverage: examining the purchaser provider relationships within social insurance schemes". Countries involved include Thailand, South Africa, Vietnam, Kenya, India, Philippines, Nigeria, China, Tanzania, and China.

The Kenyan government health policy after independence in 1963 was principally a tax funded health system[4]. This was part of the government's commitment towards providing free health services in its development agenda to address poverty and improve welfare of its citizens and in turn the country's productivity. The government introduced user fees in public healthcare providers in the 1980s due to several factors such as poor economic performance, inadequate financing resources, declining budget allocation and external donor pressure.

Despite rapid expansion of the healthcare sector, various challenges made it hard for the government to keep financing health care demands. These challenges were raising inequities and inefficiencies in the healthcare delivery system[5] (GOK, 1994). Currently, in the *Vision 2030* development plan for the country, achievement of universal health coverage has been recognized under the social pillar.

The National Hospital Insurance Fund (NHIF) [6] whose mission is to empower Kenyans get affordable services of high quality is the primary purchaser of healthcare services in the country. It was established as a department of the Health Ministry in 1966 to give services to the formal employees only. However, in 1972 an amendment was made to allow access by the informal sector. The organization later transformed to a state corporation through the NHIF Act No 9 of 1998.

According to the 2020 Economic Survey by Kenya National Bureau of Statistics (KNBS), total principal members under NHIF stood at 8.5 million as at the end of 2018/19 financial year against a population of 47.6 million which represents 17.9% coverage (pg. 282). Total contributions received in the same financial year amounted to 58.1 billion while amount spent by government on services related to health was KES 76.7 billion. In the same period, the percentage of government's health services expenditure against its total expenditure was 5.7% which expressed as ratio of gross domestic product (GDP) to the total health expenditure was 7.1%. Total expenditure on health by households in relation to the overall expenditure by households stood at 33%. (KNBS 2020).

[4] National Guidelines for the Implementation of Primary Health Care in Kenya.

[5] In 1994, the Government of Kenya approved the Kenya Health Policy Framework (KHPF) to be the blueprint for managing and developing health services in the country.

[6] NHIF is a state corporation, headquartered in Nairobi Kenya and with a branch network spread across was established in 1966 as a department under the Ministry of Health. It was transformed to a state parastatal in 1998 through NHIF Act of 1998 to accommodate the changing health needs of the population.

The country's population has been projected to reach 60 million people by the year 2030 up from the current 47.6 million as per the 2019 Housing and population census[7]. This growth in population may cause a challenge in as far as providing foundation for long term growth because less than 20% of households in Kenya have any form of health insurance.[8]Since inception, NHIF's purchasing mechanisms have developed gradually. At the start in 1966, the mechanism used was a rebate that was paid daily to the healthcare providers. Thereafter, when a new act was put in place in 1998, the organization adopted a full rebate system where healthcare providers were paid in accordance with the level which they were licensed by the Ministry of Health. With a vision to establish purchasing of outpatient services, NHIF in 2010 piloted both the Fees-For-Service (FFS) and the capitation purchasing mechanisms.

During the implementation of the outpatient services, the organization adopted a mixed purchasing mechanism comprising of capitation for purchasing outpatient services; the fees-for-service mechanism for purchasing of a select number of outpatient services; bundled mechanism for purchasing of packaged services and the rebate mechanism for purchasing inpatient services. This study sought to evaluate how effective these four mechanisms are in the quest to attain universal health coverage in the country. This is given NHIF's role as the main purchaser of health services and the key role it is envisioned to play towards achieving the country's 2030 development blueprint.

### 1.2 Statement of the Research Problem

The government of Kenya identified the provision of universal health services in the country through NHIF as one of the four pillars of development in the *Big Four agenda* (GOK, 2018). NHIF as the enabler of universal health coverage in the country purchases health services from hospitals on behalf of members using the pooled contributions.

Given its role in attaining UHC, the current purchasing mechanisms used by NHIF need to be evaluated to establish if services delivered by healthcare providers address population health needs, provide financial protection to members, and enable access to quality care in an equitable manner. Some of these purchasing mechanisms have contributed to underproviding of services to members and poor-quality services. This has resulted to healthcare needs of members not being adequately met during access. In some cases, the mechanisms have led to

[7] Kenya Population and Housing Census (KPHC)-2019 conducted between August-November 2019.
[8] Health and Vital Statistics-Kenya Economic Outlook 2020 prepared by the Kenya National Bureau of Statistics

increased out of pocket payments by members who may end up paying for services they may not need. An evaluation of the current purchasing mechanisms on effectiveness will provide the needed interventions in order to meet UHC goals of access, equity, efficiency, quality of care and financial protection.

Currently, there is limited information to show this assessment has been undertaken since the pilot of universal health coverage was rolled in the country in 2018. Pegged on the above and given the key role NHIF is expected to play to achieve this goal, there is need to critically assess NHIF's health purchasing mechanisms in pursuit of successful coverage as per the world health organization 2030 targets. In addition, the assessment would help to ascertain if there are policy design gaps that require to be looked at to ensure effective health provision of the whole population.

The resources received from the government and contributions made by members should be directed to priority areas such as enhancing coverage and easing access; expanding benefit packages as well as ensuring healthcare providers maintain quality in services offered. To ensure this is achieved, an assessment of the current purchasing mechanisms is important to help identify the right combination that can provide healthcare providers with optimal incentives that will ensure the best possible quality of care is given hence utilizing resources allocated to NHIF prudently.

### 1.3 Research Questions

1. How effective are the health purchasing mechanisms used by NHIF in achieving universal health coverage in Kenya?
2. Are the health purchasing mechanisms used by NHIF promoting delivery of quality care?
3. Are the health purchasing mechanisms used by NHIF promoting equity and financial protection to citizens?
4. Are the health purchasing mechanisms used by NHIF provide for adequate government stewardship in enabling transparency and accountability?

### 1.4 Objectives of the study

#### 1.4.1 Overall Objective

The overall objective of the study was to carry out an assessment on the effectiveness of the health purchasing mechanisms used by NHIF in achieving universal health coverage in Kenya.

### 1.4.2 Specific objectives

1. To establish if the purchasing mechanisms used by NHIF are efficient in delivering quality care by providers.
2. To evaluate if the purchasing mechanisms used by NHIF promote equity and financial protection to citizens.
3. To determine if there are adequate mechanisms by the government to promote transparency and accountability under the purchasing mechanisms of NHIF.

## 1.5 Justification of the Study

### 1.5.1 Academic Justification

Past studies on health financing have focused on revenue generation (Ssengooba F, et al 2017 Hanson K, et al 2018 ;) and pooling together of resources, (; Binyaruka, P. et al, 2018; Uzochukwu B, et al 2018) with little attention given to the aspect of health purchasing particularly in relation to universal healthcare. Mathauer, 2020 focused on pooling financial resources for UHC while Kutzin, 2015 focused on raising revenues for health in support of UHC.

Recent studies done in Kenya on health purchasing have focused on purchasing arrangement by the county departments of health (Mbau R, et al, 2018),examining multiple funding flow to facilities in Kenya(Barasa E, et al 2018),early experiences on effect of devolution on healthcare in Kenya(Tsofa B,2018),Role of private health insurance in achieving UHC in Kenya(Chuma J, et al 2016),Community based health insurance schemes in Kenya,(Munge K, et al 2016) and the regulatory and policy framework of National Hospital Insurance Fund in relation to health purchasing (Munge, 2019). There exists a gap on how the current purchasing mechanisms used by NHIF to purchase health services from hospitals can be leveraged to provide universal coverage of health to the whole population.

The Findings of the study will aid in understanding other aspects influencing the achievement of universal health coverage as well as being a reference for researchers investigating health purchasing mechanisms in Kenya.

### 1.5.2 Policy Justification

In addition, the study findings will help develop the broader policies on health financing in the country as it reforms its health systems towards achieving universal health coverage and offer

lessons for a broader setting in other Low-and- Medium- Income countries in pursuit of UHC particularly under a framework of social health insurance.

The study will also be beneficial to NHIF as the country's social health insurer in as far as understanding best practices of purchasing services from health care providers is concerned. This will in turn strengthen the government's effort towards the attainment of health coverage to the whole population through the *Big four agenda* and vison 2030 development blueprint.

### 1.6 Scope of the study and limitations

This study sought to assess effectiveness of the current health purchasing mechanisms under NHIF in as far as the attainment of universal health coverage in Kenya is concerned. The study was limited to NHIF as the country's social health insurer which purchases health services from hospitals. It served as a case study with a focus on key respondents from public, private, and faith-based hospitals as well as key respondents from NHIF who are involved designing purchasing packages, implementation, and administration of services under different mechanisms. Members who use NHIF to access services from healthcare providers were also sampled from branch offices within the Nairobi Metropolitan area due to limited time and resources. The researcher was also cognizant of government measures put in place to minimize the spread of covid-19 particularly in crowded areas.

The study was confined to the purchasing mechanisms currently used by the NHIF to purchase healthcare on behalf of contributing members which include capitation, fees for service, bundled/packages, and rebate. It encompassed evaluating three aspects of efficiency in delivery of quality care, promotion of equity and financial protection as well as availability of mechanisms to promote transparency and accountability.

### 1.7 Definitions and Operationalization of key concepts

#### Universal Health Coverage

The World Health Organization (WHO) defines universal health coverage as a situation where the healthcare system of a country covers the whole population by enabling them access quality health services they need while ensuring they are not exposed to financial hardship (WHO, 2010).

The process of ensuring people have access to quality care that they require without suffering financial difficult. (Boerma, 2014). This study will use the definition by the World Health Organization.

**Health Purchasing Mechanisms**

These refer to the methods of payments together with other supporting health systems that accompany the payment methods such as the information systems, accountability mechanisms and contracting. (Cashin, 2015). The Resilience and Responsive Health Systems consortium[9] refers to purchasing mechanisms as the processes via which pooled financial resources are paid to hospitals for them to deliver a set of healthcare services (RESYST, 2014). This study will focus on four purchasing mechanisms (Capitation, fees for service, bundled/packages payment, and rebate) used by NHIF to reimburse healthcare providers for services offered to members.

**Health purchasing mechanisms under National Hospital Insurance Fund**

**Capitation**

Cashin et al (2015) describe capitation as a purchasing mechanism where the purchaser pays the provider a specified amount of money in advance so as to give a clearly defined number of health interventions for a given period of time to specific individuals. Under NHIF, declared healthcare providers are capitated to provide outpatient care services with members required to select a facility of choice from a list of recognized healthcare providers (NHIF,2016).

**Fees for service**

This is a purchasing mechanism where the purchaser fixes the fees to be paid for each service or group of services in advance and pays the healthcare provider for each individual service provided (Hurst, 1992). Under NHIF, preauthorization of services by providers is a key requirement before reimbursement can be done.

**Bundled payments(packages)**

Cashin et al (2011) define bundled payment/packages as a purchasing mechanism that sets a fixed price for a collection of healthcare services that are related to an episode of care. NHIF has set a comprehensive range of pre-defined services for its members for which healthcare providers are paid a fixed price subject to meeting strict guidelines on preauthorization and general accepted standards of medical practice.

[9] An International research Consortium on health policy and systems in Africa and Asia to promote health and health equity and reduce poverty.

**Rebate (per diem)**

A purchasing mechanism used for inpatient care that gives a specified amount for a patient fixed per day in the healthcare facility. According to Busse et al (2011), it is used when the goal is to improve efficiency and increase bed capacity when the capacity to manage by both the providers and the purchaser is limited. The hospital claims are reimbursed after the discharge of beneficiaries (NHIF, 2016).

## 1.8 Chapter Outline

This study is made up of five chapters. The first chapter introduces the study and outlines the following: background to the study; statement of the research problem; research questions; objectives of the study; Justification of the study and scope of the study. Chapter two focuses on literature review, theoretical and conceptual framework. Chapter three presents the methodology of the study. Chapter four focuses on data analysis, presentation, and discussions while chapter five gives the summary, conclusion, and study recommendations.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

This section provides the empirical and conceptual analysis of universal health coverage and available provider purchasing mechanisms at global, continental and country level and how they have been used to promote achievement of universal health coverage. This review helped to point out the knowledge gap in the literature that was addressed by the study.

## 2.2 Universal Health Coverage

Universal Health coverage (UHC) constitutes having a country's healthcare systems where the whole population, of all ages are able to access health services that they need, when they need them without suffering financial costs (WHO,2010). It covers social systems which give access to critical public health infrastructures as well as both medical and non-medical health services. The concept of universal health care is a wide one and has been executed in a number of ways. All of these initiatives have one thing in common: initiatives supported by the government to expand health services to as many people as possible while establishing some basic standards. Reeves et al., (2015) posit that majority of countries use laws, and some form of tax regulations to carry out healthcare reforms.

Others use revenue from mandatory insurance schemes with the patient paying for some costs at the point of service. However, he notes that such regulations and laws should specify the kind of care to be provided, the basis for such provision and the beneficiary of such care (Reeves et al,2015). This notion is supported by Moreno and Smith, (2015) who argue that a number of such programs are fully funded through taxation and sometime by paying for the vulnerable people in the community or those with chronic illness requiring prolonged period of treatment.

Health financing is key in the quest to attain UHC and focus need to be given to raise enough financial resources through risk pooling which minimizes payments made out of pocket as well as ensuring the use of those resources is efficient and equitable (Wang H. et al, 2018). This, supported by a competent workforce in the health sector will promote an efficient, well-coordinated system that offer affordable care that is able to meet the needs of the population on matters of health.

Other key elements of achieving UHC include supply of essential drugs and functioning, medical equipment, high levels of governance, transparent procurement processes and use of modern technology (World Bank, 2016). The focus should therefore be on people-centered integrated care as opposed to focusing only on the services covered. A paradigm shift in delivery of healthcare services is needed to tailor them to the needs of the population being served. These goals should be long-term and capture people's expectations in a holistic manner. Preventive measures, health promotion campaigns, palliative services of care, management of disease and treatment should be integrated to respond to the health needs of individuals in a given context. The effect is a health population and general cost cutting in accessing healthcare in the long term.

**2.3 Background to Universal Health Coverage**

The idea of UHC goes back to the time of the German empire when Otto Von Bismarck, then Chancellor, established the first national social insurance with the cost spread between employees and employers on a third and two-third respectively (Sauerborn,2002). This was followed by the General Assembly of the United Nations Human Rights declaration[10] in 1948(article 25) that every individual has a right to a standard of living enough for their well-being and health for them and their family (UN,1948).

In 1978, the Alma-Ata Declaration during the International Conference on primary healthcare in USSR declared health for everyone to be a universal health right (Alma-Atta, 1978). This gave global attention to the role of primary care towards achieving health for all. Thereafter, progress towards UHC in many low- and medium-income countries slowed (Sauerborn, 2002) due to the global economic meltdown in the 1980s and introduction of structural adjustment programs in the 1990s.

At the start of the 21st century, this was advanced through the Millennium Development Goals (MGDs) which member states had pledged to achieve by year 2015.More recently, in 2015 the General Assembly of the UN adapted the2030 agenda on development which outlined sustainable development goals (UN,2020). Goal three recognizes good health and well-being of all people along the focus on UHC. The role of UHC in reducing extreme poverty and fueling economic growth in LMICs cannot be overemphasized (McIntyre, 2013).

[10] United Nations General Assembly, "Universal Declaration of Human Rights, Article 25" in Paris, France 1948.

### 2.3.1 Global perspective on Universal Health Coverage

During the 2005 World Health Assembly, a resolution was made for countries to make necessary plans to transition to universal health coverage[11]. Many high-income countries all have health programs geared towards full coverage of the population (Figueras, 2005).

The design of their health systems has UHC at the core to ensure individuals access treatment without incurring heavy financial costs. Additionally, nations such as China, Brazil, India, South Africa, and Russia[12] (Garrett et al,2009) that make up more than half of the global population all have ongoing reforms in health sector meant to improve coverage to the population while promoting financial protection for those who seek treatment (Marten et al,2014).

In most European countries where access to health services has been affordable, policy makers have been finding it difficult to respond to the changing nature of the population health needs and increase in costs associated with treatment. Majority of these health programs in Europe get funded using a mixed public-private premium payment model. In countries such as Spain, Portugal, Denmark, Italy, Greece, Ireland and Sweden, revenue from taxation is used to finance universal care in the health system (Montagu, 2021). Primary revenue comes from tax with supplementation from specified levies charged either directly to employers or from individuals.

Other countries such as Japan, France and Germany have a multiple payer contribution system from both the public and private (Busse R, 2002). For the private contributions, employees and their employers are mandated by law to contribute to sickness funds which are not-for profit. In Canada, it is through compulsory insurance where residents are required to purchase insurance from one public fund. In Germany, one can purchase health insurance either from the private funds or from the public fund.

Other mandatory insurances include the US patient protection and affordable care as well as the Swiss Healthcare in Switzerland. The Swiss health program is mandatory but provided by private insurance companies with no public funded free health services. Only foreign embassy staff together with members of their families are exempt. This is meant to both encourage public health in general and reduce costs through individual initiative. Prior to the introduction of the Health and Social Care Act in 2012 in the United Kingdom, the government was the

[11] World Health Assembly Resolution 58
[12] BRICS emerging global economies

single payer for all costs associated with treatment. Thereafter, they introduced insurance from the private sector where employees' contributions are paid directly to health insurance by employers or through families and other associations. These private health insurances can be profit making or not for profit community health associations (Montagu, 2008).

However, many chronic conditions are not covered by the private insurers because of costs associated with treatment but also because majority are covered under the public health system. Countries such as Brazil and Costa Rica have adopted a universal health model where similar health services are offered to all through government funding (Cueto, 2004).

### 2.3.2 Continental Perspective on Universal Health Coverage

Countries in Africa that have achieved universal health coverage include Ghana, Rwanda, Morocco, Egypt, Mauritius, Tunisia, and the Republic of South Africa (Gilson et al, 2003). Majority of these countries except Rwanda have social insurance schemes (Mills & Ranson, 2005). Rwanda uses a community-based insurance scheme. Under social health schemes, mandatory premiums paid by workers from both the informal and the formal sector are put in a single fund or into multiple pool of funds.

These social health schemes can be implemented by state agencies, insurance companies in the private sector or non-governmental organizations. Private and public health providers are then contracted by these funds to provide specified health benefits to the population (Canavan A, 2008)). The parent health ministry is then left to address issues of preventive care as well as healthy lifestyle promotion.

In Rwanda, the community social health scheme is voluntary where members of the community make contributions to pool funds together to cater costs associated with treatment (Preker, 2004). This ensures that those from poor households in the rural areas get access to quality services even without access to private insurances. Community based health insurance (CBHI) has three key features: It depends on pre-installments for buying medical services, isolating direct wellbeing instalment from usage; it is constrained by the local area, and it depends on willful participation (Preker, 2004).

In Ghana, the government established the national health scheme, which is aimed at providing the citizens financial coverage to access health services in an equitable manner. (Sarpong et al.2010) This ensures that treatment is provided first before payment is made. Every citizen contributes to the fund by charging a 2.5% Health insurance Levy on some select goods and

services. Agyepong (2008) posits that this law was passed so that in the event of an ailment, one can be given support to access care in an affordable manner.

### 2.3.3 National perspective on Universal Health Coverage

In 2015, the World Bank confirmed Kenya's status in the category of lower-level middle income country. Kenya's Gross National Income (GNI) per capita income is estimated at about $1,290 (KSHS 127,215). Countries in the lower middle-income category have a GNI per capita of more than KSHS 99,024 but less than KSHS 390,513. The average out of pocket expenditure between 2011-2015 for Kenya was 67.4% (World Bank, 2016). This is a characteristic of middle-income economies which have not fully implemented universal health coverage. According to the Sustainable development goals indicator 3.8.1 by country (2015), Kenya is ranked between index 46 and 61 of the UHC coverage index. This is in the same category with other African countries such as Namibia, Botswana, Zambia Zimbabwe, and Gabon.

At both global and local level, achieving UHC is a policy priority area according to the HERU policy brief, (2019). This has necessitated the need to measure and track progress made in the attainment of universal health coverage. The government of Kenya had set 2022 as the target for achieving UHC (MOH, 2018).

Under the constitution of Kenya (2010), citizens are entitled under the Bill of rights, the highest possible levels of quality health which is what the UHC agenda aims to provide. According to Barasa et al, (2018), this will be in line with the United Nations goals of sustainable development. Universal health coverage must ensure provision of care that is people-centered, accessible to all and protects against any form of catastrophic financial expenses among other approaches that promote social equity (United Nations, 2018).

Due to the expensive nature of healthcare, it is easy for individuals to be pushed to extreme poverty. According to the Kenya Medical Research Institute (2019), as the country makes effort, focus must be on inclusion of more people into coverage, expansion of key priority services as well as working towards reduction in user fees paid in hospitals (Honda A,2016). According to the cabinet secretary for health "Universal health coverage means much more than healthcare. It means ensuring that all Kenyans can get quality health services, where and when they need them, without suffering financial hardship."

There is a strong political goodwill by the government of Kenya through the big four priority development areas which includes provision of universal health for all citizens. Some key

reforms and programmes towards UHC are: the government has increased health financing from 6% to 15%, launch of *Linda Mama*, a free maternal program in government hospitals since 2013,removal of user fees enabling access to primary care at no cost in health centers and dispensaries countrywide(3,300 hospitals),construction of additional infrastructure in all county referral hospitals, purchase of ambulances ,hiring of healthcare workers and the medical equipment program in 94 hospitals. Additionally, the government has developed a strategy on a national referral system that is currently in the pilot phase.

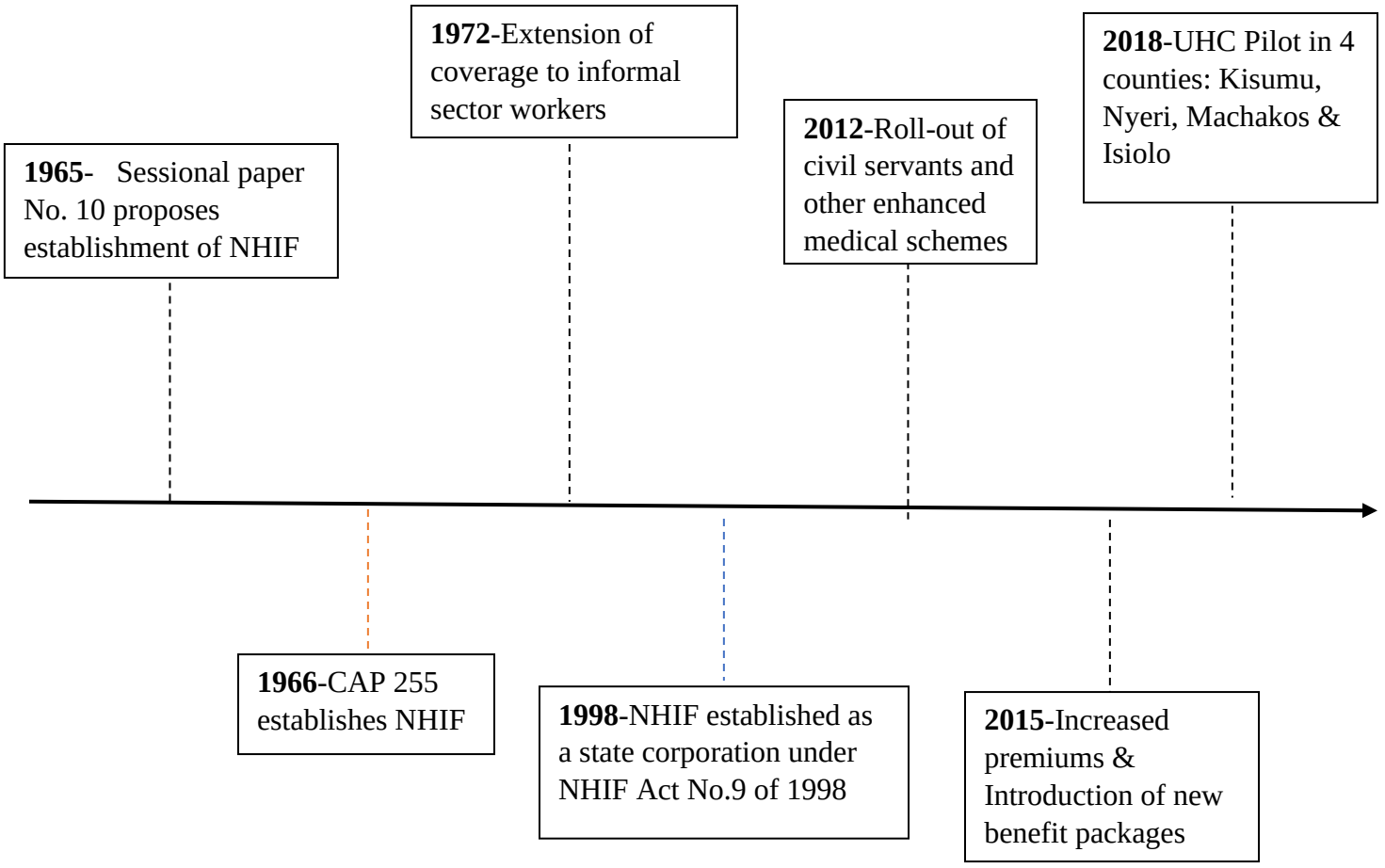
### 2.3.4 National Hospital Insurance Fund role in Universal Health Coverage

NHIF was identified as the main vehicle for roll out of UHC in the country due to its wide network across the country, largest member base as well as a high number of contracted hospitals which currently stands at 5,831 government hospitals, 311 mission/faith-based hospitals and 1,524 private hospitals countrywide (NHIF,2020).

As the largest national social health insurer, NHIF is best positioned to deliver UHC in Kenya. NHIF's benefit package has unique features that include a family-based cover, no age limit, no restrictions, coverage of all illnesses including pre-existing cases, access to quality care in the accredited healthcare providers countrywide, admission without requiring prior deposit and access to primary health facilities without co-payment (NHIF, 2015). The fund ensures that the benefit package is affordable, accessible, reliable, and sustainable health cover.

A review of NHIF policy documents show it provides both inpatient and outpatient cover to its members and their declared dependents. In the case of outpatient, beneficiaries are entitled to medical consultation, laboratory tests & investigations, drug administration and dispensing, dental services for tooth extraction, radiology services, kidney care package, chronic illness care package, maternity service, prenatal & postnatal care, and family planning. The figure below shows NHIF journey towards UHC since inception.

**Figure 2.1** National Hospital Insurance Fund Journey Towards Universal Health Coverage




**Source**: NHIF,2020.

### 2.4 Health Purchasing Mechanisms

According to the Joint Learning Network (JNL) 2014, health purchasing mechanisms are methods of payments accompanied by all other supporting systems such as the accountability mechanism, contracting process and information management system. Health purchasing mechanisms are key in the quest to achieve healthcare policy goals and in promoting development of health systems (RESYST,2014). It entails selecting interventions and services to be purchased, selecting the hospitals to buy from as well as determining the method of payment and contractual agreements between the providers and the purchasers (WHO,2010).

Maceira (2008) posits that different health purchasing mechanisms such as the fees for service, capitation, rebate, and bundled packages act as incentives for quality, efficiency of services and utilization of healthcare providers but may vary from purchaser, provider, and the patients.

Two main parties are involved in the purchasing and contracting of health services: purchasers and providers. According to Mwansa (2002), there exist a number of purchaser-provider relationships that have an impact in the development of purchasing and contracting mechanisms. In some cases, individuals are allowed to choose their purchaser or agent while in others there is only one monopolistic purchaser tasked to provide healthcare for the whole population in a defined geographical area.

Docteur (2003) classifies purchasing mechanisms into two major categories: a contractual arrangement where the purchaser and the healthcare provider are two separate entities and an integrated arrangement where the purchaser and healthcare providers belong to the same entity as is the case with the county governments and the county referral healthcare providers under them. The National Hospital Insurance Fund contracts healthcare providers who are separate entities and therefore falls under the first category. These healthcare providers are drawn from private providers, public providers, and mission/faith-based providers. The payment is made directly to the healthcare provider by the purchaser through intermediate purchaser provider arrangement as postulated by Langenbrunner (2009).

Dissatisfaction with the traditional model has seen countries such as Ghana, Nigeria and Tanzania carry out healthcare reforms by adopting arrangements that separate the purchaser's role and that of providing health services. By doing this, they widen the options available in the payment and contracting mechanisms such as allowing individuals option to choose their preferred purchaser or agent. (Mwansa, 2002) also gives another scenario that comprise a monopoly purchaser tasked with providing health services to the population in a given geographical location.

Purchasing can either be passive, where the purchaser of health services does not use information in allocating resources (WHO,2000) or strategic purchasing where decision on what to purchase is based on available information. Strategic purchasing is recommended as a policy instrument as it maximizes the performance of health systems through choosing which services should be purchased, how and from which providers (WHO, 2006).

The choice on which purchasing mechanism to adopt in the public healthcare system depend on traditions and a country's preferences. However, integrating many small purchasers into one large purchaser is key so as to avoid the high cost of administration associated the large volumes of contracts. This points to the importance of the choice of purchasing mechanism as

the available alternatives regarding contracts may motivate providers to choose the model that is most competitive and has the best incentives.

### 2.4.1 Global Perspective on Health Purchasing Mechanisms

Globally, recognized essentials in achievement of universal health care include adequate health financing, adequate facilities with essential drugs, equipment and health products, adequate human resources for health, health systems governance, health statistics and information systems and service delivery and safety (WHO,2010).

Decisions on what health services should be included, who should receive those services and the quality of care have also proven imperative in the quest to attain universal health coverage ((Kutzin J,2015). By far, the most prominent of these problems is in the area of health financing (Shan L, Wu Q, Liu C, et al, 2017) and consequently purchasing due to increased demand for quality care (RESYST,2014).

The European system of health show diverse approaches in how purchasing is done (Figueras, 2014). The difference in most countries is specifically on who takes the role of purchaser, the number of organizations that undertake purchasing and how these organizations interact with each other as is the case in Bangladesh. This can be done by either the government at the national level, as is the case in Guyana, Lebanon, and Cambodia (Roger E,2008), provincial government, municipals, or health insurance schemes.

A study carried out in 2014 by the European Observatory on Health Systems and Policies and the WHO analyzed comprehensively how purchasing mechanisms are functioning in European countries. According to the study, Lithuania has a single health insurance fund introduced in 1997 that is statutory and that takes up about 90% of the country's total public health expenditure. Purchasing is done by making allocations annually to the central state sickness fund which is partially financed through general taxes. Figueras (2014) point that only 20% of finances belonging to the Fund came from voluntary contributions and payroll taxes.

In Estonia, there is a Central Insurance Fund (CIF) that is charged with the responsibility of coordinating and controlling individual funds. Between 1999-2000 the health insurance system fund was an independent public organization. Currently, it has two levels; national level-charged with developing the benefit package and establishing and regulating the country's purchasing strategy and the regional level that is charged with the responsibility of contracting and reimbursement of health providers.

The study further showed that there is a mandatory scheme on social insurance in Hungary that functions as National Health Insurance Fund Administration (NHIFA). Funding of the scheme is centralized and under the control of the central government. This organization acts as the single buyer of healthcare services for the entire population. It operates a nonprofit organization closely supervised by the parent Ministry of Health with decentralized branch network across the country. The branches are the ones who enter into contractual arrangements with healthcare providers and does payments. Figueras (2014) however point out that only the administrative functions are devolved with power still centralized and key decisions made centrally.

From the study, generally in Europe health insurance institutions such as the Estonian Health Insurance Fund (EHIF) and the National Health Services Organization (NHSO) in Greece play a key role in purchasing health services because of their ability to have contractual arrangements with hospitals. This according to Figueras et al (2014) give them leverage over healthcare providers through planning, contracting, and funding in a hybrid purchasing arrangement. In analyzing the relevance of some European countries' health purchasing mechanisms to universal health coverage, some countries such as Germany and France have succeeded fully in reducing disparities in coverage across population groups and significantly reducing out of pocket expenditure (OECD,2015).

A study by Asia Pacific Observatory on Health Systems & Policies (APO) in collaboration with Resilient and Responsive Health System (RESYST) found out that majority of Asian countries (Robinson R, et al 2005) use social health insurance (SHI) as their purchasing mechanism and apply the public contract model. Countries such as China, Vietnam, Malaysia, Cambodia, Myanmar, Brunei, and Lao use a health insurance scheme that rely on public healthcare providers (Figueras, et al 2015) while Thailand, Singapore, Philippines, and Indonesia use both public and private healthcare providers. According to Long, (2013), healthcare providers in Philippines and Indonesia require to be accredited while those from the other countries do not need accreditation.

The study further indicate that most Asian countries have tiered social insurance mechanisms in terms of urban population, rural population, and employment status. In terms of service packages previous empirical reviews show that in China for example, there are inequities since the purchasing mechanisms by the three social insurers are different. Long (2013) posits that

the increased healthcare services utilization under the current purchasing mechanisms is due to the effectiveness, equity, and efficiency in the payments.

Additionally, regarding universal health coverage through appropriate purchasing mechanisms, it was established that in most Asian countries, the development of healthcare accreditation has increased to some extent coverage of the population, improved healthcare quality and eased financial pressure by reducing out of pocket expenditure giving an indication of progress towards UHC.

Countries such as Thailand and Indonesia continue to make progress towards attaining universal coverage (Wagstaff A, et al 2015) by adopting a hybrid social health scheme that cover those in formal employment through their contributions and a tax funded allocation to cover the vulnerable such as the poor, elderly, and children. The evidence from available literature show that attaining universal coverage helps reduces the financial burden that may have been incurred by the vulnerable (Ayako et al,2014).

However, according to WHO (2016), countries in the South-East Asia region (Laos, Myanmar, Vietnam, Cambodia, and Thailand are at very different stages along the path towards universal health coverage with approximately 800 million citizens still not covered (WHO,2016).

### 2.4.2 Continental Perspective on Health Purchasing Mechanisms

Countries in Africa face a number of problems in financing health which make it difficult to achieve the objectives of quality care using the current health systems. Health financing encompasses three key aspects: raising the necessary resources, pooling of resources together and health purchasing. Countries such as Mali, Rwanda, Ghana, Nigeria, and Kenya rely on contributions from households in the informal sector that are voluntary and from whom taxation is difficult despite taxes' popularity as the main source of revenue necessary for running programs aimed at covering the population.

According to Rwanda's Ministry of Health in a study published in 2010 titled *Rwanda Community-Based Health Insurance,* the country created a national coverage system in 2008 by using community-based health insurance scheme that was fragmented but that had a history of collecting premiums. This was strengthened by compulsory collection of premiums from everyone except the poorest enforced by a rigid political structure.

Evidence from available literature suggest that majority of countries in Africa such as Ghana, Tanzania, and Senegal have adopted demand-side purchasing arrangements either for specific

populations or for particular types of healthcare. According to Fuenzalida (2010), this has been done by creating separate purchaser agencies or through strengthening existing ones in a bid to apportion part of government financial resources to cater for health expenditure.

Further, a multi-country study by RESYST (2014) shows that countries in Africa such as Tunisia, Seychelles, Nigeria, and South Africa have developed new purchasing arrangements that can be able to create incentive to providers to give quality care while mitigating fraudulent activities and containing costs. However, the main challenge remains the quality of care given though several countries have taken steps to improve.

Out of pocket expenditure on health remain high in many countries (Myanmar, Afghanistan, Guinea-Bissau, Nigeria, Yemen, Equatorial Guinea, Comoros, Cameroon, Bangladesh, and Armenia) according to the WHO Global Health Expenditure data base (2018). This is despite continued efforts by governments to cover the population and relieve citizens financing pressure. According to WHO (2010) a country only get to give universal care to its population when the amount of money they pay out of pocket for health does not exceed 15% of their total health expenditure.

In analyzing previous literature on health purchasing in Africa, the findings by Ayako (2016), Binyaruka et al (2018) Ibe, O., Honda, A., Etiaba, E. et al (2017) show that the current purchasing mechanisms by most Africa's social health insurers has insignificantly improved the population coverage since there exist a lot of ineffectiveness in most of the mechanisms. The finding place Rwanda (89% coverage) and Ghana (74%) as the only countries in Africa with the highest coverage though the level still falls below the WHO recommendation of over 90% population coverage.

### 2.4.3 National Perspective on Health Purchasing Mechanisms

Kenya, like other African countries such as Nigeria and Tanzania, faces major health financing barriers to accessing healthcare particularly in the area of purchasing. According to WHO, purchasing can either be made passively where healthcare providers are given resources without any concern for efficiency or strategically where resources are transferred to healthcare providers with incentives aimed at ensuring efficient, equitable and quality delivery of services.

Kenya's governance system is two-tiered consisting of the national government and forty-seven devolved units which are semi-autonomous[13]. In terms of health purchasing, the country broadly has two models (Obadha et al 2019) where one is a contractual arrangement with the purchaser being a separate entity from the healthcare providers (as is the case with NHIF and hospitals) and the other model is an integrated arrangement with both purchaser and provider belonging to the same entity(as is the case with National Referral Hospitals owned by the National government and the health centers owned by the county governments).The national government has both regulatory and policy roles. According to the Health Ministry, provision of health services in the country is pluralist with almost equal share of public and private providers (MOH, 2014).

The National Hospital Insurance Fund operates under the contractual arrangement model and purchases healthcare services from government, faith based and privately owned hospitals, (Obadha et al 2019) while the Health Ministry uses the integrated model to purchase health services from referral facilities that it owns. At the devolved units, the departments of health at county level purchases healthcare from both primary and secondary healthcare providers that they own (Mbau et al 2018).

Munge (2015) and Mbau (2018) focused on purchasing arrangements by private and community-based health insurers. Additionally, they examined purchasing mechanisms used by county governments an analysis of empirical work on purchasing arrangement shows. In assessing Kenya's experiences in as far as health purchasing mechanisms is concerned in terms of efficiency towards the whole population coverage, Obadha (2018) posits that implementation of a new law on public finance management and devolution coming into place reduced the autonomy of public healthcare providers. This in turn demotivated them and led to compromised quality of care offered.

### 2.4.4 National Hospital Insurance Fund's Purchasing Mechanisms

A 2018 study by Binyaruka P, et al titled '*Does payment for performance increase performance inequalities across health providers? A case study of Tanzania*' demonstrate that

[13] Mombasa, Kwale, Kilifi, Tana River, Lamu, Taita Taveta, Garissa, Wajir, Mandera, Marsabit, Isiolo, Meru, Tharaka-Nithi, Embu, Kitui, Machakos, Makueni, Nyandarua, Nyeri, Kirinyaga, Murang'a, Kiambu, Turkana, West Pokot, Samburu, Trans-zoia, Uasin Gishu, Elgeyo-Marakwet, Nandi, Baringo, Laikipia, Nakuru, Narok, Kajiado, Kericho, Bomet, Kakamega, Vihiga, Bungoma, Busia, Siaya, Kisumu, Homa Bay, Migori, Kisii, Nyamira, Nairobi.

the mechanism in place to reimburse providers has a significant effect on both the cost of services and their quality. Using inputs as the basis for paying providers will only act as an incentive for them to maximize those inputs (Binyaruka P, et al 2018) while doing nothing to improve efficiency as an output. This has an effect of providing services that are below the required threshold or even taking patients to unrelated care levels. Further, purchasing mechanisms that use line-item budgeting have inefficiency and issues of quality as they are not based on outputs but on inputs (Langenbrunner,2009). Conversely, the fees for service purchasing mechanism may result in increased number of services offered by providers as more numbers mean more payments (Langenbrunner 2009).

NHIF, as the main purchaser of healthcare in the country (MOH,2020) uses four major mechanisms when purchasing healthcare: Capitation-defined by Cashin et al (2015) as a purchasing mechanism where the purchaser pays the provider a fixed amount of money in advance so as to provide a clearly defined number of services for a given period of time to specific individuals; fees for services-defined by Hurst (1992) as a purchasing mechanism where the purchaser fixes the fees to be paid for each service or group of services in advance and pays the healthcare provider for each individual service provided; bundled services or packages-defined by Cashin et al (2011) as a purchasing mechanism that sets a fixed price for a collection of healthcare services that are related to an episode of care; and rebate defined by Busse et al (2011) as a purchasing mechanism for inpatient services that provides a fixed amount for a patient per day in the hospital.

**2.5 Knowledge Gap**

A study conducted by the National Hospital Insurance Fund in 2014 titled '*A critical Analysis of Provider Payments Methods*' identified significant weaknesses in decisions on purchasing by NHIF in relation to the government, citizens, and service providers. Munge (2017) in analyzing the NHIF-government arrangement, noted that there was lack of a performance-based framework to regulate activities of NHIF when purchasing services. He also identified lack of a feedback mechanism and failure to involve citizens in the design of benefit packages in the NHIF-citizen arrangement. Further, along NHIF-healthcare provider arrangement, it was noted that there lacked clear strategies on quality improvement such as unavailability of guidelines on use of essential drug list in treatment. (Munge (2017).

Another study titled '*A critical analysis of healthcare purchasing arrangements in Kenya: A case study of the county departments of health*' by RESYST in 2015 also analyzed decisions on purchasing from the perspective of health providers in relation to NHIF and found that there was failure by the fund to assess contracted healthcare providers. This was however not the case with private health insurers who made strategic purchasing and contracting of providers based on cost, geographical access, capacity, and quality.

A recent study by Mbau et al (2019) '*Examining purchasing reforms by NHIF*' found that NHIF remains a passive purchaser of health services despite the reforms introduced in 2015 which were intended to reduce out of pocket expenditure on health by members as well as expanding coverage of the population. Findings of the study show that these were systemic weaknesses that negatively affected NHIF purchasing actions which in turn affected the goals efficiency, quality, and equity.

Obadha, et al (2018) in examining health purchasing mechanisms in Kenya found that capitation as a purchasing mechanism used by NHIF and other insurers was perceived by healthcare providers to be in adequate. The study also found that disbursements were made late and therefore could not help providers on time. In relation to public providers, the study established that they did not have autonomy to both access and utilize payments received from services offered to NHIF under capitation and fees-for service mechanism.

These studies were carried out before the piloting of UHC in December 2018 and the subsequent scale up to the rest of the country. There is need therefore, to assess health policies and practices on health purchasing to ensure effectiveness in attaining full health coverage to the entire population. As the main vehicle that the government intends to use, it is useful to carry out a case study of NHIF.

## 2.6 Theoretical Framework

### 2.6.1 The Principal-Agent Theory

The study utilized the principal-agent theory as posited by Ricardo and Frederick Stapenhurst (2008). This is a neo-institutional theory in economics that explains both the procedural and structural mechanisms that actors use to influence policy in a given context (Pelizzo R., et al 2008). It was first used in explaining the relationship between shareholders and firms (Jensen & Mekling ,1976). In political science, the principal-agent theory has been used to illustrate interactions between governments and the citizens and also between citizens and elected

representatives. The theory illustrates how organizations and agencies act in given contexts and how they influence policies that affect them.

According to this theory, an organization or person who is the agent performs a function or role on behalf of the principal through delegation so as to achieve some given objectives. By employing an agent to do some work on their behalf, the principal delegates some level of control to the agent (Grossman & Hart,1983). However, problems arise if the interests of the principal differ with the interests of the agent or there is information asymmetry with the principal having less information than the agent. When that happens, the principal cannot make sure their agent will end up acting in the principal's best interests.

The principal-agent theory presumes some key tenet; the first major tenet is on information asymmetry between the principal who is the delegating authority and the agent to whom duties are delegated (Mcgrath, 2011). In such a case, the principal may be unable to get the agent to act with the best interests of the principal. However, according to Chai (1995) the information asymmetry by the principal can be overcome by identifying rewards that the agent finds motivating.

The second tenet is that delegation to the agent by the principal is on specific goals. This implies that when an agent decides to pursue interests that are selfish at a loss to their principal, the principal's goals and objectives will not be achieved. Schoorman et al (1997) however argue that loyal agents would only work to align their goals with those of the principal. This implies in the context of purchasing, the purchaser of healthcare services acts as the principal, and may be disadvantaged in terms of the information as it is the healthcare provider who is the agent and who interacts directly with the clients.

Thirdly, the theory assumes that the principal has a bargaining power over the agent in that they are able to impose the best possible solution from the agent's correctly inferred best response function (Sappington,1991).

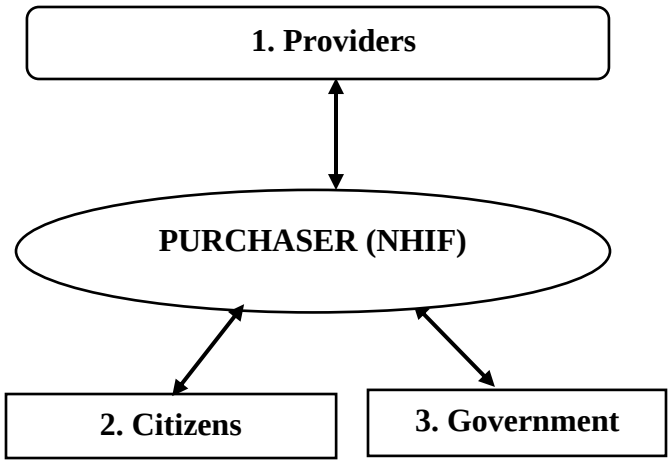
In addition, the preference of the agent is assumed to be different than those of the principal such that the agent may prefer to avoid costly actions that might benefit the principal at the expense of the agent. While using this theory, one must be cognizant of three challenges likely to arise: Conflict of interest between the principal and the agent, information asymmetry where one party has more information than the other and moral hazard.

The study therefore focused on the role of NHIF as a purchaser in relation to healthcare providers, the government and the citizens in as far as purchasing healthcare is concerned. This was done by assessing how the purchasing mechanisms used by the purchaser affect the delivery of quality services by the providers to citizens as envisioned by the government. In addition, the study assessed if the health services purchased by NHIF ensure financial protection and equity in access to all the members as well as promoting transparency and accountability in the use resources.

The principal-agent theory suitability to this study on health purchasing was grounded on its ability to explain the functional relationship between NHIF and the providers of healthcare, the citizens who receive services and the government that acts as a regulator and how the actions of one player may affect the decision of the other towards the goal of attaining UHC.

Metz et al, (1991) have critiqued the theory arguing that analyzing the principal-agent vertical relationship is hard particularly where a number of principals in different levels of management are involved. For this study, NHIF was an agent to its members as it acts on their behalf as well as to the government while also playing the role of a principal to the hospitals it contracts (agent). The principal-agent theory can however have many principals at different levels as posited by Chubb (1985).

**Figure 2.2**: Principal-Agent relationships in strategic purchasing




**Source:** Figueras, 2005

From the figure above, three purchaser relationships were identified.1. NHIF and healthcare providers; 2. NHIF and the citizens and 3. NHIF and the government. Healthcare purchasing involved the three principal-agent relationships and the three set of actors.

The three actors (healthcare providers, citizens, and government) each have some key actions in relation to the purchaser in contributing to achieving the UHC goals of delivering quality care in an efficient manner, promoting efficiency and accountability as well financial protection. These are shown in the table below.

**Table 2.1:** Key actors and their actions in health purchasing.

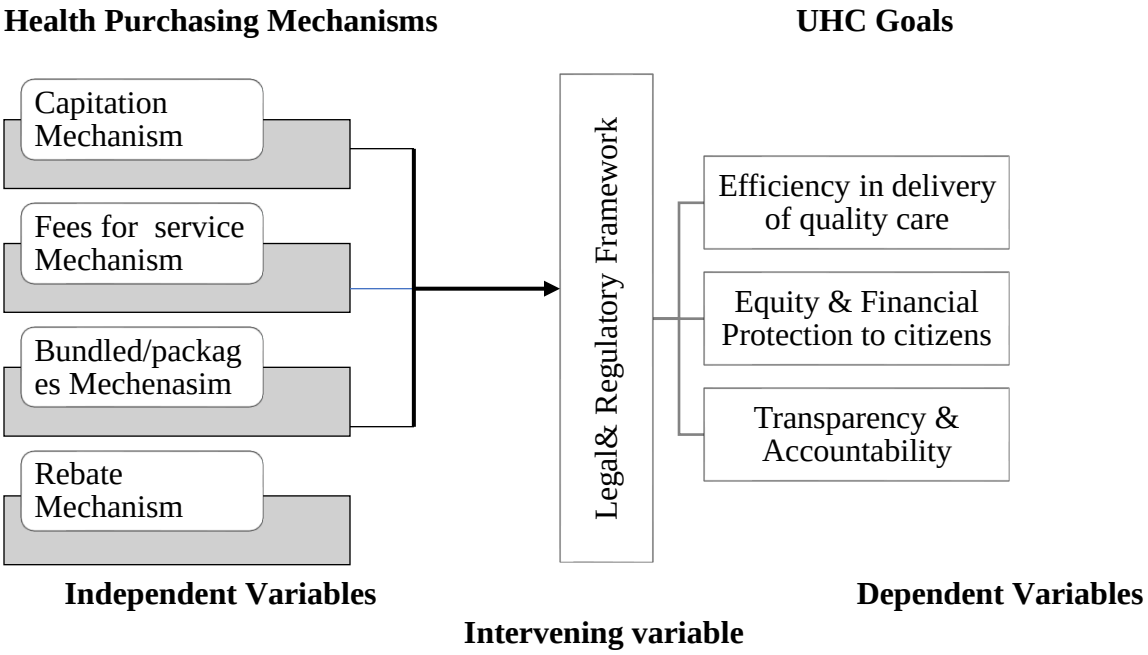
| UHC Goals | Key actors in purchasing | Key actions by the actors |
|---|---|---|
| Efficiency in delivery of quality care | Purchaser/Healthcare providers | Select providers based on location, quality of services, and benefit package<br>Develop and implement purchasing mechanisms<br>Monitor provider performance and ensure timely reimbursements<br>Deliver quality care to patients |
| Financial protection & Equity | Purchaser/Citizens | Ensure access to services by the population without out-of-pocket payments<br>Ensuring availability of access to needed health care in all geographical areas countrywide<br>Ensuring that contracted hospitals are near to the population<br>Ensure adequate financing to meet service entitlements |
| Transparency & Accountability | Purchaser/Government | Establish clear frameworks for purchasers and providers and coherence across them<br>Ensure accountability and transparency in the use of resources by purchaser |

**Source**: RESYST (2014).

## 2.7 Conceptual Framework

The study focused on the current purchasing mechanisms used by NHIF which include: capitation, fees for service, bundles/packages and rebate. It then adopted UHC goals from the WHO (2010) report to come up with a conceptual framework for the study. This is shown in figure 2.3 below.

**Figure 2.3:** Conceptual Framework




**Source**: (1) Author;(2) World Health Report 2010

According to the Resilient & Responsive Health Systems Consortium (RESYST,2014) there are several key considerations in these three relationships. :(a) purchaser-provider relationship which focuses on delivery of quality care based on timely reimbursement to providers, sustainability of the purchasing mechanism and administrative burden of the mechanism; b)purchaser-citizens relationship which focuses on equity of resource allocation and financial protection to members through ensuring premiums paid are affordable, distribution of providers and easy access to providers;(c) purchaser- government relationship which has the regulatory framework that ensure transparency and accountability through clear governance structures. To assess the effectiveness of the current purchasing mechanisms at NHIF, the researcher measured the current practices by NHIF against the above considerations for ideal purchasing.

## 2.8 Research Hypotheses

The study was anchored on the following hypothesis:

1) The purchasing mechanisms used by NHIF do not promote efficient delivery of quality services by healthcare providers.
2) The purchasing mechanisms used by NHIF do not promote equity and financial protection of citizens.
3) The purchasing mechanisms used by NHIF do not provide for adequate transparency and accountability framework.

# CHAPTER THREE
# METHODOLOGY

## 3.1 Introduction

Chapter three describes the methodology of research used in the study and includes research design, target population, sampling techniques, methods of data collection, data reliability and validity, data analysis and ethical considerations while undertaking the research.

## 3.2 Research Design

The study utilized a descriptive case-study research design. This is a quantitative approach to research which aims to give a description of the current status of an identifiable variable through giving information of a phenomenon in a systematic way (Mugenda & Mugenda, 2003). This approach is appropriate in carrying out an empirical enquiry of purchasing mechanism in a real-life context by summarizing, describing, and characterizing the identified sample. According to Gagnon (2010), a case study approach makes it possible to scientifically analyze phenomena as a single and thereby give in-depth understanding of the phenomenon. In addition, Woodside (2010), posits that a case study as a method of inquiry focuses on understanding, describing, controlling, or predicting individual phenomenon. The case study method was appropriate in assisting to assess and understand the relationship between the health purchasing mechanisms and universal health coverage with NHIF as the case.

## 3.3 Target population

The study population target comprised National Hospital Insurance Fund staff members who are involved in the design and administration of the purchasing mechanisms and those who undertake stakeholder engagements with healthcare providers, members of the public and the Ministry of Health officials who act as the government regulators. These key respondents have the technical knowhow of the purchasing mechanisms and were therefore useful in providing insights in as far as achieving UHC through NHIF is concerned. In addition, select healthcare providers from across the country in the three categories of public, private, and faith-based hospitals contracted by National Hospital Insurance Fund to offer services to citizens. Specifically, the study targeted managers, supervisors and administrators who have knowledge and manage the purchasing mechanisms on a regular basis from the healthcare provider perspective and who interact with the members on behalf of NHIF. Further, Members of the public who are beneficiaries of services offered by the healthcare providers and who remit

premiums to NHIF were also interviewed on how they accessed services. To provide insight on the regulatory framework, key documents on health policy and financing in the country from the Health Ministry were reviewed.

**Table 3.1:** Interview Respondents schedule

| **Respondent Category** | | | | | **No.** | **No. of branches** | **Sample size** |
|---|---|---|---|---|---|---|---|
| NHIF | Key Respondents -Head office | | | | | | 10 |
| | Branch office Managers | | | | 1 | 24 | 24 |
| Hospital representative | Medical superintendent/Manager/Administrator/ supervisor | | | | | | |
| | | Public | Mission | Private | | | |
| | Capitation | 2 | 2 | 2 | 6 | | |
| | Rebate | 2 | 2 | 2 | 6 | | 24 |
| | FFS | 2 | 2 | 2 | 6 | | |
| | Bundled | 2 | 2 | 2 | 6 | | |
| Citizens | NHIF Branches | | | | 1 | 24 | 24 |
| | Healthcare providers | | | | 2 | 24 | 48 |
| **Total** | | | | | | | **130** |

**Source:** Author 2021

### 3.4 Sampling Techniques

#### 3.4.1 National Hospital Insurance Fund key respondents

Stratified sampling was undertaken to group National Hospital Insurance Fund into four counties within Nairobi Metropolitan Area: Kiambu, Kajiado, Machakos, and Nairobi. six branch managers from each of the four counties were then systematically selected to arrive at a sample of 24. NHIF currently has 70 branch offices hence this number would be representative. Branch managers were selected because they are the ones charged with the mandate of implementing the purchasing mechanisms and contract enforcement with the health care providers. In addition, 10 Key respondents of the Fund who are involved in the design of purchasing mechanisms were interviewed at the head office.

**Table 3.2**: National Hospital Insurance Fund Branch offices visited

| **Date** | **County/Branch** |
|---|---|
| | *Nairobi* |
| 5th July 2021-Branch Manager | Upperhill |
| 6th July 2021-Branch Manager | Westlands |
| 7th July 2021-Branch Manager | Buru Buru |
| 8th July 202-Head Member Management | Eastleigh |
| 9th July 2021-Branch Manager | Ruaraka |
| 12th July 2021-Deputy Branch Manager | Kangemi |
| | *Kiambu* |
| 13th July 2021-Branch Manager | Kiambu |
| 14th July 2021-Incharge Satellite Office | Kikuyu |
| 15th July 2021-Branch Manager | Limuru |
| 16th July 2021-Branch Manager | Ruiru |
| 19th July 2021-Incharge Satellite Office | Gatundu |
| 20th July 2021-Branch Manager | Thika |
| | *Machakos* |
| 21st July 2021-Branch Manager | Industrial Area |
| 22nd July 2021-Head of Member Management | Machakos |
| 23rd July 2021-Quality Assurance Officer | Kangundo |
| 26th July 2021-In-charge Satellite Office | Mwala |

| | |
|---|---|
| 27th July 2021-Senior Registration Officer | Matuu |
| | *Kajiado* |
| 28th July 202-In-charge Satellite Office | Ngong |
| 29th July 2021-Branch Manager | Ongata Rongai |
| 30th July 2021-Branch Manager | Kitengela |
| 2nd August 2021-In-charge Satellite Office | Isinya |
| 3rd August 2021-Branch Manager | Kajiado |
| 4th August 2021-In-charge Satellite Office | Loitoktok |

***Source:*** Author,2021

### 3.4.2 Hospitals and Healthcare Providers

Simple random sampling was used to group healthcare providers based on the purchasing mechanism used by National Hospital Insurance Fund: i.e., rebate, capitation, fees for service and bundled payments. six healthcare providers from each stratum (county) were randomly selected comprising of three public health care providers, one faith-based provider and two private healthcare providers to arrive at a sample of 24. The focus was on medical superintendents, administrators, and supervisors/owners, respectively. The choice of the number of public, private, and mission/faith-based hospitals was based on the current representation from the Kenya Master Facility list.

The table below gives hospital representation under different categories

**Table 3.3:** Kenya Master Facility Hospital representation

| **Health care category** | **Representation** |
|---|---|
| Public | 48% |
| Private | 38% |
| Mission/Faith-based | 14% |
| **Total** | **100%** |

**Source**: Kenya Master Facility,2020

**Table 3.4:** H**os**pitals visited per County**.**

| **Date** | **County/Branch** | | | |
|---|---|---|---|---|
| | ***Nairobi*** | ***Category*** | ***Name*** | ***Respondent*** |
| 5th July 2021 | Upperhill | public | Mbagathi District Hospital | Hospital Administrator |
| 6th July 2021 | Westlands | private | Westlands Medical Center | Hospital Manager |
| 7th July 2021 | Buru Buru | private | Avenue Healthcare | In charge-Claims |
| 8th July 2021 | Eastleigh | public | Pumwani Maternity | Medical superintendent |
| 9th July 2021 | Ruaraka | Mission | St Francis Community Hospital | Hospital Administrator |
| 12th July 2021 | Kangemi | Public | Kangemi Health Centre | Nurse In charge |
| | *Kiambu* | | | |
| 13th July 2021 | Kiambu | public | Kiambu County Referral | Hospital Administrator |
| 14th July 2021 | Kikuyu | Mission | P.C.E.A Kikuyu mission | Claims Manager |
| 15th July 2021 | Limuru | Private | Limuru Cottage | Hospital Owner |
| 16th July 2021 | Ruiru | Private | Care Max Health Limited | Hospital Manager |
| 19th July 2021 | Gatundu | Public | Gatundu level V Hospital | Medical superintendent |
| 20th July 2021 | Thika | Public | Thika level 5 Hospital | Medical superintendent |
| | *Machakos* | | | |
| 21st July 2021 | Industrial Area | Private | Nairobi West Hospital | Hospital Manager |
| 22nd July 2021 | Machakos | Public | Machakos level v Hospital | Hospital Administrator |

| | | | | |
|---|---|---|---|---|
| 23rd July 2021 | Kangundo | Private | Ruai Family Hospital | Hospital Manager |
| 26th July 2021 | Mwala | Mission | Bishop Kioko Catholic hospital | Hospital Administrator |
| 27th July 2021 | Matuu | Public | Matuu Sub District Hospital | Medical superintendent |
| | *Kajiado* | | | |
| 28th July 2021 | Ngong | Public | Ngong Sub-County Hospital | Hospital Administrator |
| 29th July 2021 | Ongata Rongai | Public | Karen Health Centre | Nurse in-charge |
| 30th July 2021 | Kitengela | Private | Athi River Medical services | Hospital Owner |
| 2nd August 2021 | Isinya | Public | Isinya Health center | Nurse in charge |
| 3rd August 2021 | Kajiado | Mission | A.I.C Kajiado Dispensary | Hospital Administrator |
| 4th August 2021 | Loitoktok | Private | Tulah Medical services | Hospital Owner |

***Source:*** Author's Research schedule,2021

### 3.4.3 Members of the Public/Citizens

Members of the public who use National Hospital Insurance Fund to access health services from contracted providers were systematically selected at respective NHIF service points comprising branches, satellite offices, Huduma centers and healthcare providers. This ensured the researcher lowered the chances of having the same member chosen twice for the same sample. One member from each of the twenty-four service points in the four counties and two from each healthcare provider using either of the NHIF's purchasing mechanisms were selected (rebate, fees for service, capitation and bundled/packages).

## 3.5 Data Collection

The study utilized both primary data and secondary data. Primary data was collected from respondents at National Hospital Insurance Fund and select healthcare providers from four counties across the Nairobi Metropolitan area. The data was gathered through a self or interviewer administered questionnaire which enabled the researcher to closely inquire into the

topic under study and at the same time ensured uniform responses that provided greater reliability were generated.

Key respondents at the National Hospital Insurance Fund were interviewed to provide detailed knowledge on the current purchasing mechanisms both at the head office and the branch offices. In addition, healthcare providers officials with knowledge of National Hospital Insurance Fund's purchasing mechanisms were interviewed.

Secondary data was obtained from publications such as NHIF policy documents on purchasing and contractual arrangements with healthcare providers, Ministry of Health guidelines on NHIF and health purchasing in the country, Kenya health strategic plans, WHO journals on universal health coverage and health financing, previous studies, articles, and books on the healthcare purchasing.

### 3.6 Reliability and Validity of Data

According to Baumgarten (2012) reliability in research means the measurement of a concept using identical procedure and replicating the findings. It implies that if someone else used the same method of inquiry as a researcher on the same subject, they would generate the same results. By replicating the same experiment, one would be able to identify inaccuracies in both observation and in measurement.

The accuracy of the data collected in this study was ensured by use of simple and clear vocabulary in the questionnaire to ensure accurate responses were obtained. In addition, the use of structured questionnaires in data collection ensured the data was not only consistent but also uniform. Quantitative techniques which provide for greater reliability were used in the study.

According to Osborn & Haralambos (2000), validity refers to the extent to which a research instrument is able to measure what it was designed to measure and therefore data can only be valid if it gives accurate depiction of the subject under investigation. Consistency of the research instruments was ensured before the actual roll out of the study through a pilot study. This helped make necessary corrections on the questionnaire which made it more dependable.

### 3.7 Data analysis and data presentation

The study produced both qualitative and quantitative data. Qualitative data is the one that describes information where respondents express themselves fully, on the other hand, quantitative data consists of information that can be counted and given numeral values,

(Mugenda & Mugenda 2003). The quantitative data from the structured questionnaires was captured, coded on the statistical packages for social sciences (SPSS) software and analyzed through use of descriptive statistics. For open ended questions that generated qualitative data, the narrations were themed and categorized for ease of analysis to establish patterns on themes with similar patterns. Thereafter, results were presented in tables and figures.

### 3.8 Ethical Considerations

The study utilized ethical standards of research which ensured voluntary participation and confidentiality of the respondents' information so as to ensure ethical values. It also included a letter of consent to the respondents before administering of the questionnaire. To ensure personal information on respondents was kept confidential, the names were left out and instead use of unique identification numbers was employed.

Necessary approvals were acquired from the Political Science and Public Administration department (Appendix 5), The National Commission for Science, Technology & Innovation (NACOSTI) through Research License 599663(Appendix 3) and The Management of National Hospital Insurance Fund (Appendix 4) for data collection from the staff. To ensure the researcher avoided any form of plagiarism, all authors of referenced work were fully acknowledged and where direct quotation was used duly indicated.

# CHAPTER FOUR

# DATA PRESENTATION, DATA ANALYSIS, AND INTERPRETATION

## 4.1 Introduction

This chapter presents the findings, gives analysis of the collected data from the field, and also interprets the findings based on the study objectives. The study assessed effectiveness of NHIF's purchasing mechanism in achieving universal health coverage in Kenya and focused on efficiency in delivery of quality care, equity in access and financial protection of members as well as the existing regulatory framework both in terms of policy design and policy implementation.

## 4.2 Response rate and Demographics

### 4.2.1 Response rate

An overall response rate of 91 per cent was achieved. A total of 118 questionnaires successfully administered out of a sample of 130. Mugenda & Mugenda (2003) posits that such a response rate is representative of the sample under study. One hundred per cent response rate was achieved under the NHIF key respondents and hospital officials' categories. The high response rate was attributed to the nature of administration of the questionnaire which was interviewer driven and allowed interaction with the respondents and immediate feedback. Guided interview method was employed due to its ability to generally yield high cooperation and low refusal rates as posited by Qu, (2011). The quality of the responses was therefore high as the method combined cross examination, questioning and probing techniques (Owens, 2002).

However, under members of the public, a response rate of 83 per cent was achieved. The researcher was unable to obtain one hundred percent response rate due to the few numbers of people visiting hospitals and NHIF offices due to the covid -19 containment measures put in place by the government in April 2020 to prevent spread of covid-19 in the country. This confirms the assertion by Oluoch-Aridi J, (2020) that covid-19 affected access to health services in Kenya.

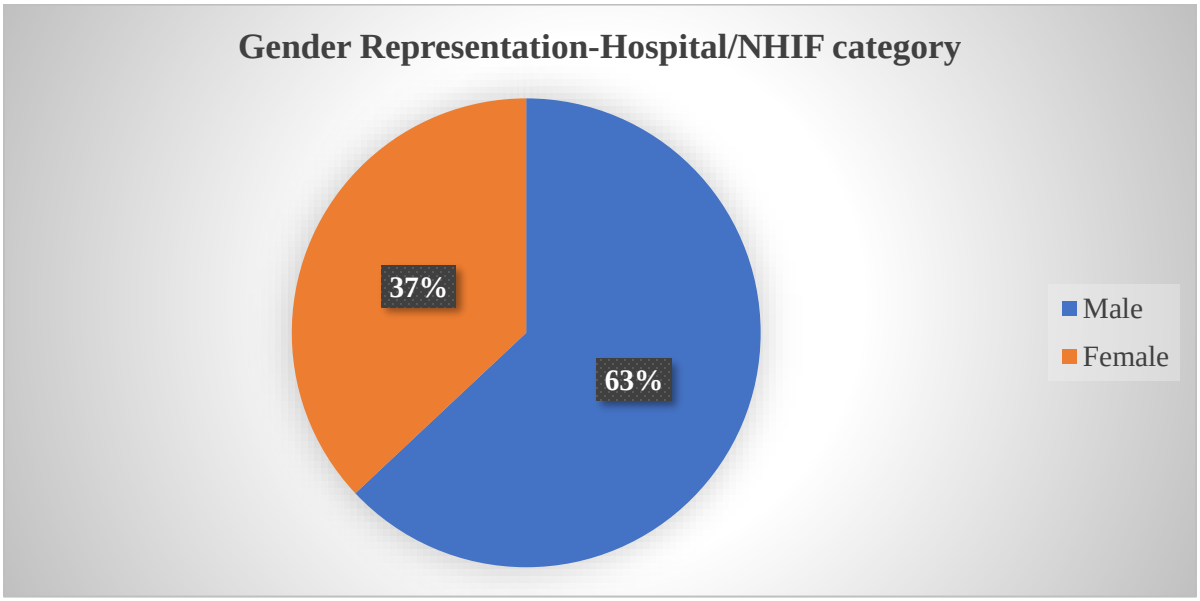
### 4.2.2 Demographics

The researcher wanted to ascertain the gender, location, and type of scheme that members were using as well as hospital category where services were being accessed.

### 4.2.3 Gender Representation

Under the hospital category and National Hospital Insurance Fund branch officials' category, majority of the respondents were male at 63 per cent with female respondents being 37 per cent. The findings reflect a strong presence of male officials at the National Hospital Insurance Fund branches while the same is also evident in positions of hospital administrators, superintendents and those who are in management positions in healthcare facilities. Below is the representation.

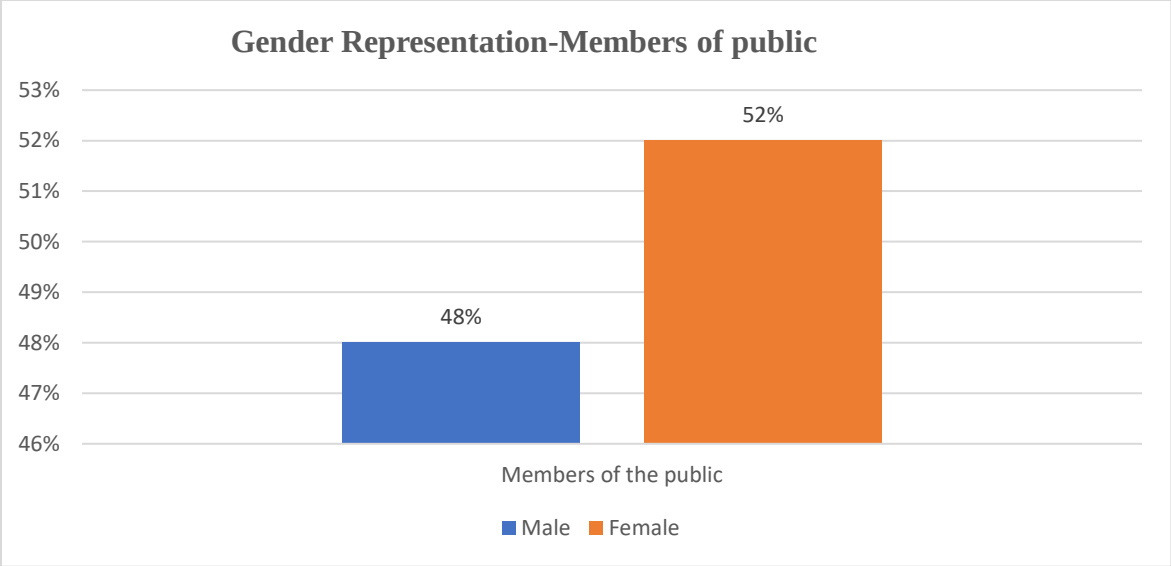
**Figure 4.2:** Respondents Gender Representation-Hospital Category




**Source:** Author's Research data

In addition, majority of the respondents under the members of public category were female at 52 per cent while the male respondents comprised 48 per cent. This shows more women generally seek health services than men as posited by Payne (2009). Majority of those interviewed had accompanying children whom they had brought to seek medical treatment. Below is the representation.

**Figure 4.3:** Gender Representation-Members of the public




**Source**: Author's Research Data,2021

### 4.2.4 Location

Results indicate 44.4 per cent of respondents who were interviewed were from urban areas where they had gone to seek for health services. Those from adject to urban areas were 30.6 per cent while another 25 per cent were from the rural areas. Accessing healthcare services remain challenging particularly in the rural areas as majority of hospitals were found to be situated in urban locations with those in rural places found to be either inaccessible or lacking most essential services sought by patients. This is despite 65% of people in rural set up depending on government facilities in those areas (MoH,2013). The table below gives these findings:

**Table 4.1:** Location of Respondents

| | **Urban** | **Near Urban** | **Rural** | **Total** |
|---|---|---|---|---|
| **Frequency** | 52 | 36 | 30 | **118** |
| **Percentage** | 44.4 | 30.6 | 25.0 | **100.0** |

**Source**: Author's Research Data,2021

### 4.2.5 Type of Scheme

The findings of the study indicate majority of respondents interviewed were from the National scheme (66per cent) which is the largest members' scheme covering people from both the informal sector and the formal.14.2 per cent of respondents were from the civil service which is a government funded medical scheme with superior benefits covering the mainstream civil

service employees. In addition,10.8 per cent of the respondents were from the National Police Service medical scheme while 9 per cent comprised of senior citizens under different retirement schemes. Considering majority of people use the national scheme to access basic health services due to its affordability, it is imperative for the NHIF to enhance the benefits under the scheme to reduce variation in access to care (Glassman A,2016) and to cover among others chronic illnesses such as diabetes and hypertension which have become prevalent in the country yet paid for through out of pocket (Kutzin J,2008). A representation of these findings is shown by the table below:

**Table 4.2:** Type of scheme respondents covered under

| **Scheme** | **Frequency** | **Percentage** |
|---|---|---|
| National Scheme | 78 | 66.0 |
| Civil servant Scheme | 17 | 14.2 |
| National Police Service | 13 | 10.8 |
| Retirement Scheme | 10 | 9.0 |
| **Total** | **118** | **100.0** |

**Source**: Research data,2021

### 4.2.6 Hospital Category

Majority of healthcare facilities visited for this study were public facilities (45.8 per cent) followed by private facilities (29.2 per cent). Mission/faith-based facilities (25 per cent) were the least represented in the respondents. Part of the reason for the low response rate from mission facilities was the challenge of having few mission hospitals accredited by NHIF (301) against those accredited in private (1,524) and public sector (5,381). It was also noted that majority of the respondents interviewed indicated that they preferred seeking services from private hospitals as opposed to government hospitals many of which do not have essential medical equipment such as laboratory services and medicines particularly the ones in rural areas which undermines equity for the poor and marginalized who are known to have a higher burden of disease (Lodenyo, 2016). Further, the National Hospital Insurance Fund purchasing mechanism mainly used for majority of hospitals in all the three categories was capitation. Payments were made in advance and was based on the number of members who had chosen a given hospital (Cashin et al, 2015). This was an incentive particularly for the private and faith-

based hospitals to offer quality services while little or no incentive available to the public hospitals as payments made from NHIF went to the county government and could not be directly used to improve quality of care in the public facilities (Mbau R,2018). Below is a percentage representation of the various healthcare categories that were visited for the study.

**Table 4.3**: Hospital Categories

| | **Public Hospitals** | **Private Hospitals** | **Mission Hospitals** | **Total** |
|---|---|---|---|---|
| **Frequency** | 11 | 7 | 6 | **24** |
| **Percentage** | 45.8 | 29.2 | 25.0 | **100.0** |

**Sourc**e: Author's Research Data,2021

### 4.3 Efficiency in delivery of health care services by hospitals

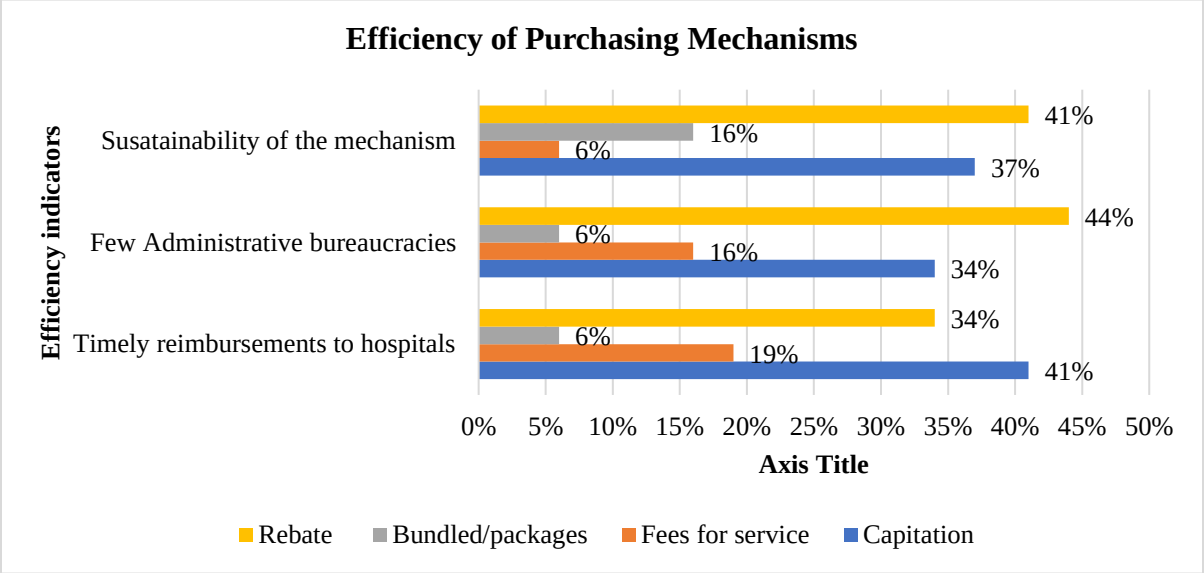
#### 4.3.1 Efficiency of Mechanisms

The researcher sought to establish if the purchasing mechanisms that NHIF is currently using provide for efficient delivery of quality healthcare by providers to members covered. The efficiency by different mechanisms to deliver quality care to the members of the public was evaluated in the following areas: level of challenges in terms of management; administrative bureaucracies involved, and time taken to reimburse healthcare providers. Perspectives from both the hospital administrators and NHIF officials were sought.

Findings show that the rebate/per diem mechanism ranked highly in terms of sustainability (41per cent) as well as having few administrative bureaucracies (44 per cent). Capitation mechanism ranked highest in terms of timely reimbursement to healthcare providers (41per cent) with the bundled/packages ranking lowest at 6 per cent on administrative bureaucracies and timely reimbursements (6 per cent). Further analysis reveals that the fees for service mechanism was the most challenging in terms of managing with a score of 6 per cent. Overall, from an administrative perspective, the rebate mechanism was the most efficient followed by capitation although majority of respondents indicated there is need to review the amounts reimbursed to hospitals by NHIF if they are to offer quality health services. The perceived inadequacy of capitation and rebate rates led to unnecessary referrals and admissions which led to unnecessary use of resources hence compromised efficiency. Secondly, the bundled mechanism ranked lowest on time taken to reimburse hospitals as well as on the administrative

bureaucracies and sustainability due to its ambiguity on coverage and varying benefits available to different members. Officials indicated that this created an avenue for fraud, abuse and wastage by both members and the hospitals. This points both to a policy design and implementation challenge. These results are presented below in the figure 4.3: -

**Figure 4.3**: Efficiency of different Purchasing Mechanisms




**Source:** Author's Research Data,2021

### 4.3.2 Reasons for preference

Additionally, respondents were asked to rate the current purchasing mechanisms and give reasons for their preference. Responses were varied and the key reasons for preference were summarized. Below is a table showing the findings:

**Table 4.4**: Reasons for preference

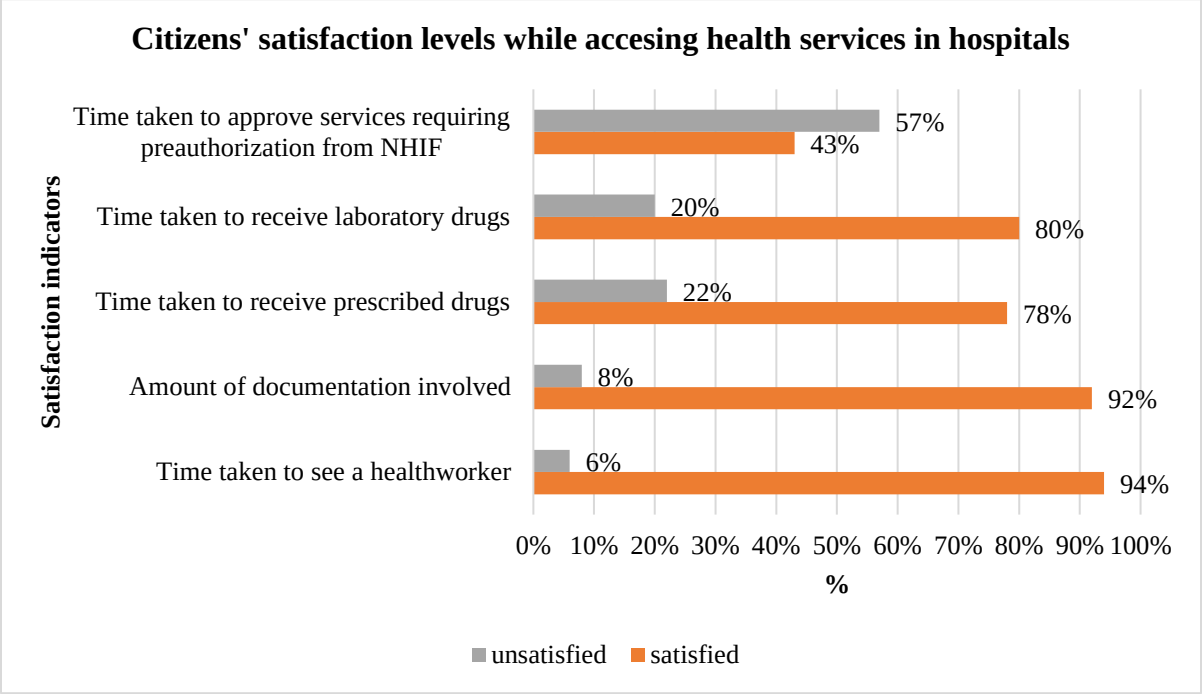
| Purchasing mechanism | Most common preference given |
|---|---|
| Fee for service (FFS) | Customers have the ability to get health benefits from a wide range. |
| Capitation | Can be managed easily and allows for equitable healthcare coverage. |
| Rebate | Less challenging to manage and costs can be controlled. |
| Bundled(packages) | Allows for providing a wide range of specialized care. |

**Source:** Author's Research Data,2021

### 4.3.3 Citizens' Level of Satisfaction

The level of citizen satisfaction while accessing services in the healthcare providers was measured. Majority of respondents interviewed indicated they were most satisfied on time taken to see a healthcare worker (94 per cent) as well as with the amount of documentation involved (92 per cent). Other satisfaction levels were; time taken to receive prescribed drugs (78 per cent) and time taken to receive laboratory drugs (80 per cent). Dissatisfaction levels on time taken to receive laboratory and prescribed drugs were notable at 20 per cent and 22 per cent respectively which asserts the WHO (2018) report on delivering quality health services that points to lack of drugs and laboratory services in many government hospitals.

**Figure 4.4**: Citizens' level of satisfaction while accessing health services in hospitals



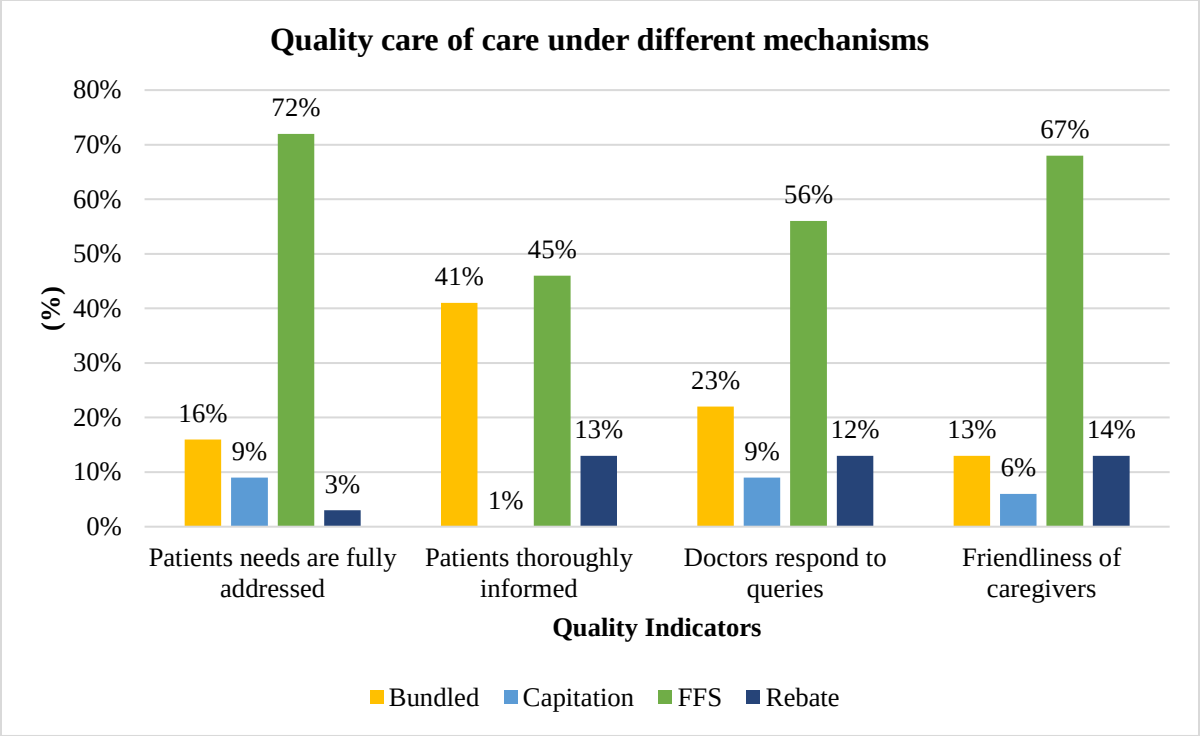

**Source**: Author's Research Data,2021

### 4.4 Quality of Care

In the quest to achieve universal healthcare, policy makers must ensure the care being offered to citizens is not only accessible and affordable but also be of the right quality (WHO,2010). Fee for service mechanism was the most preferred in terms of giving quality care from the hospitals and NHIF perspective with 72 per cent of respondents saying the mechanism fully addressed the needs of the patients (Hurst,1992), 46 per cent indicated patients were thoroughly informed while 68 per cent said the caregivers in the facilities were friendly. On the other hand,

the hospitals and NHIF respondents indicated capitation mechanism offered the least in terms of quality care with only 9 per cent indicating it fully addressed patients' needs, 1 per cent indicating patients are thoroughly informed about their treatment and a further 6 per cent saying the caregivers in the hospital were friendly. Below is a representation of these findings:

**Figure 4.5**: Quality of care under different mechanisms




**Source**: Author's Research Data,2021

### 4.4.1 Citizens satisfaction with quality of care.

Satisfaction of members while accessing services was highest under availability of medical staff (94per cent) while dissatisfaction was highest on availability of drugs (33 per cent) followed by availability of laboratory tests (21 per cent). From the findings above, the assertion that high quality care requires skilled personnel and well-equipped hospitals as posited by Mbau et al (2020) was ascertained. The dissatisfaction was also informed by rationing of services by hospitals to patients due to perceived low and delayed reimbursements from the purchaser as posited by Busse et al (2011).

## 4.5 Equity in access of health services and financial protection to members

A key component of UHC is equity in access of health services and the level of financial protection of people (WHO,2010) by ensuring they do not incur catastrophic out of pocket

expenditure which can push the poor further below the poverty line. Views were sort from respondents on which mechanism provided for equity in access of services by members of the public as well as promoting financial protection to the members.

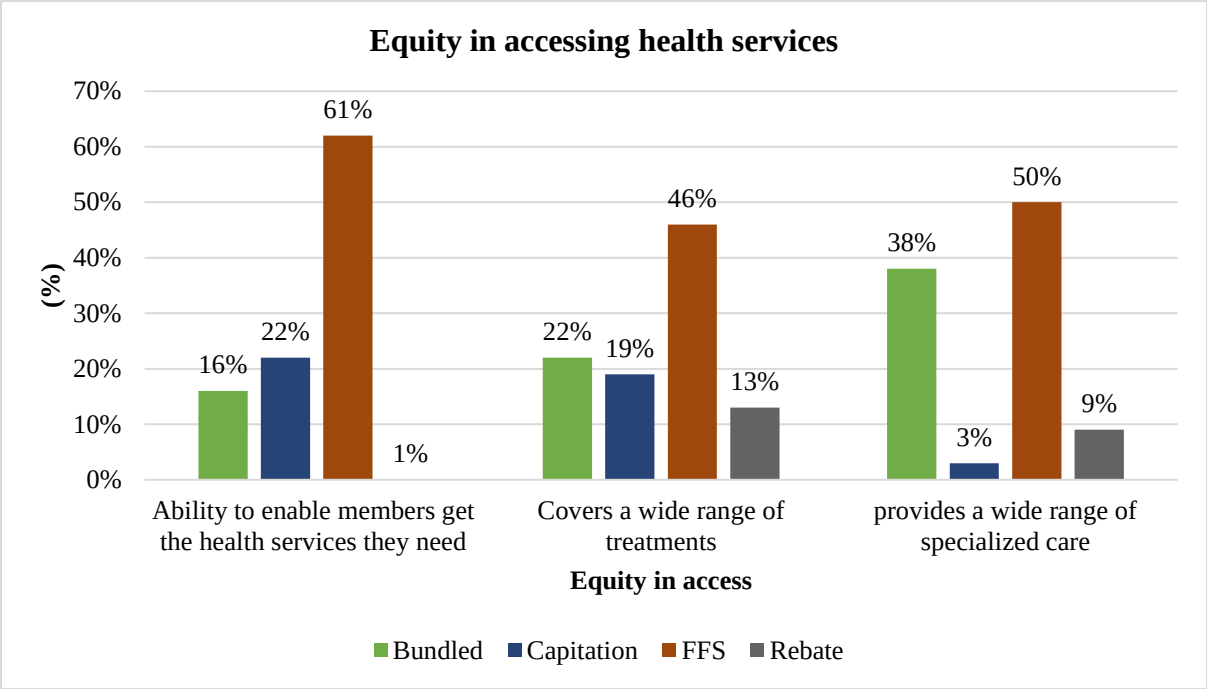
### 4.5.1 Equity in access of health services

The fees for service mechanism was the most preferred mechanism by respondents from healthcare providers and NHIF officials due to its ability to enable members get the services they need, (61 per cent) coverage of a wide range of treatments (46 per cent) and specialized care (50 per cent). This was however only available to the enhanced schemes members under the Civil Service, the National Police Service and Retirement Schemes. Ordinary citizens who comprise majority of NHIF contributors received limited care under rebate and capitation mechanisms, yet they depended on these mechanisms for their health needs (MOH,2014).

The capitation mechanism offered the least in terms of equity in access of services under provision of a wide range of specialized care (3 per cent) and rebate (9 per cent). Findings also reveal that the rebate mechanism was the least in terms of covering a wide range of treatments (13 per cent) and had the least ability to enable members get the health services they need (1 per cent). The difference in access, which points to a policy design issue led to inequity in access as well as payment for services not covered as shown by Aji B, et al (2013). There is need therefore to review the premiums payable to be more affordable particularly for the poor, persons with disabilities as well as the elderly. This is because premium affordability has been shown to affect uptake of health insurance in Low- and Medium-Income countries (Ibiwoye A, 2008). Additionally, the government can come up with a hybrid purchasing mechanism that can offer a wide range of treatments and specialized care to majority of the population hence reducing variation in access to care (Glassman A,2016).

The graph below gives this representation.

**Figure 4.6**: Equity in accessing health services.




**Source**: Author's Research Data,2021

Majority of the members of public interviewed indicated satisfaction with the time taken to reach the nearest hospital contracted to offer health services by NHIF (86.4 per cent) as well as on the ability to access health services in hospitals without being discriminated against (78.3 per cent).On the contrary, 69.7 per cent of the respondents were dissatisfied with the premiums paid to NHIF for the reason that they were not affordable to many people in the informal sector who have a higher disease burden according to the Commission on Social Determinants of Health (2008) as well as because the benefits available were less than the monthly premiums paid . The table below gives a summary of the citizens' level of satisfaction.

**Table 4.6**: Satisfaction level while accessing services

| | | **Satisfied** | **Unsatisfied** | **Total** |
|---|---|---|---|---|
| Time taken to reach the nearest NHIF contracted hospital | **Frequency** | 52 | 8 | **60** |
| | **Percentage** | 86.4 | 13.6 | **100.0** |
| Ability to access healthcare services without discrimination | | 47 | 13 | **60** |
| | | 78.3 | 22.7 | **100.0** |

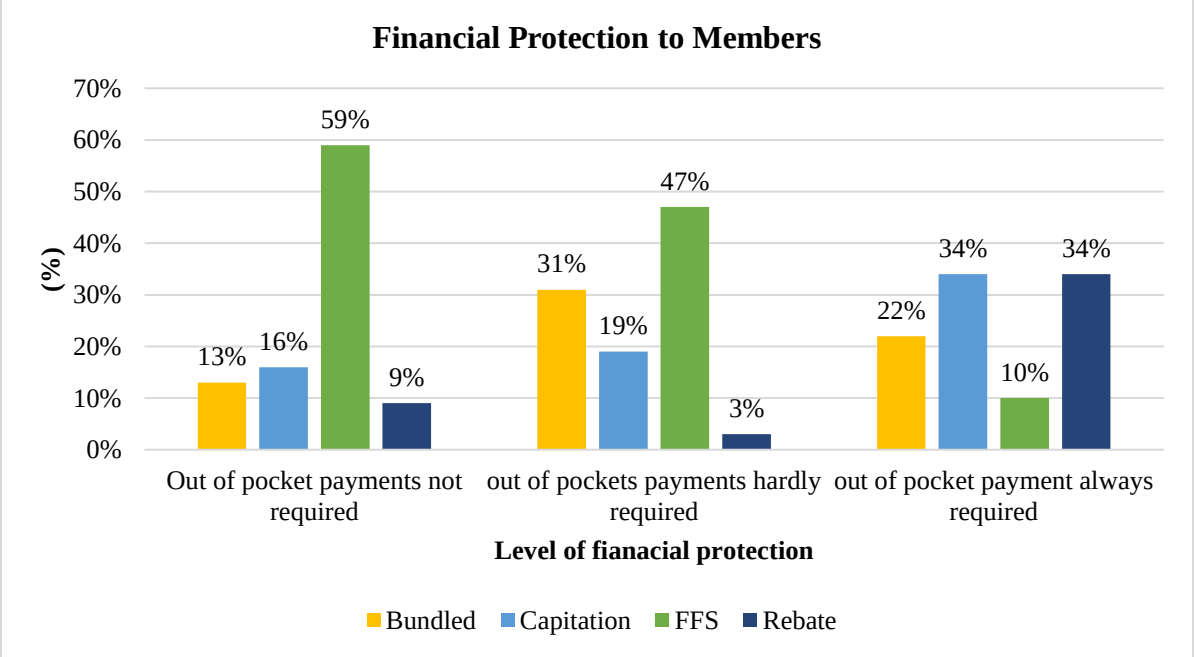
| | | | |
|---|---|---|---|
| Affordability of premiums paid to NHIF | 18 | 42 | **60** |
| | 30.3 | 69.7 | **100.0** |

**Source**: Author's Research Data,2021

### 4.5.2 Financial Protection to Members

The Fee for service mechanism offered the most financial protection to members both on the aspect of out-of-pocket payments not required (59 per cent) and out of payments hardly required (47 per cent). Rebate (34 per cent) and capitation (34 per cent) mechanisms offered the least financial protection as out of pocket payments were always required. Of note was the fact that majority of citizens who access services using both the capitation and the rebate mechanism reported making out of pocket payments all the time which exposed them to catastrophic health expenditure (Barasa E,2008) as well as inequity to access of services (Aji B,2013).This is shown in the figure below:

**Figure 4.7**: Financial Protection to Members




**Source:** Author's Research Data,2021

Members of the public were asked to indicate if they made any out-of-pocket payments while accessing health services in hospitals using the National Hospital Insurance Fund's medical cover due to lack of awareness on their entitlement as asserted by Kutzin J (2017). From the

findings, 58.3 per cent indicated to have made out of pocket payments while 41.7 per cent indicated to not having made any out-of-pocket payments.

The table below shows the percentage of respondents who indicated to having made out of pocket payments and those who did not while accessing health services.

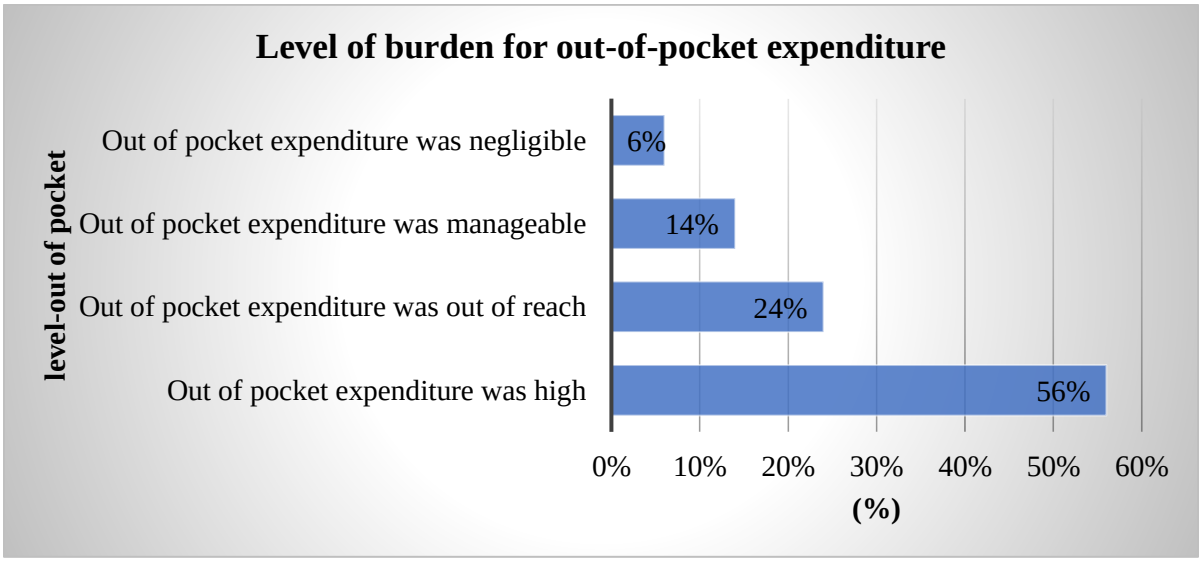
**Table 4.7**: Out of pocket payments while accessing services

| Out of pocket payment while accessing services | **Yes** | **No** | **Total** |
|---|---|---|---|
| **Frequency** | 35 | 25 | **60** |
| **Percentage** | 58.3 | 41.7 | **100.0** |

**Source**: Author's Research Data,2021

For the members who indicated they paid out of pocket while accessing health services, majority (56 per cent) viewed the out-of-pocket expenditure as high while 6 per cent termed the out-of-pocket expenditure to be negligible. Further, 24 per cent of the respondents indicated the out-of-pocket expenditure was out of their reach while 14 per cent said it was manageable. It was noted that out of pocket expenditure is a barrier in access to quality healthcare services RESYST, (2017) in addition to impoverishing majority of the population without any form of health insurance as shown by Chuma J, (2012). Citizens who could not afford to pay would forego some services. This is shown in the figure below:

**Figure 4.8**: Level of burden for out-of-pocket expenditure

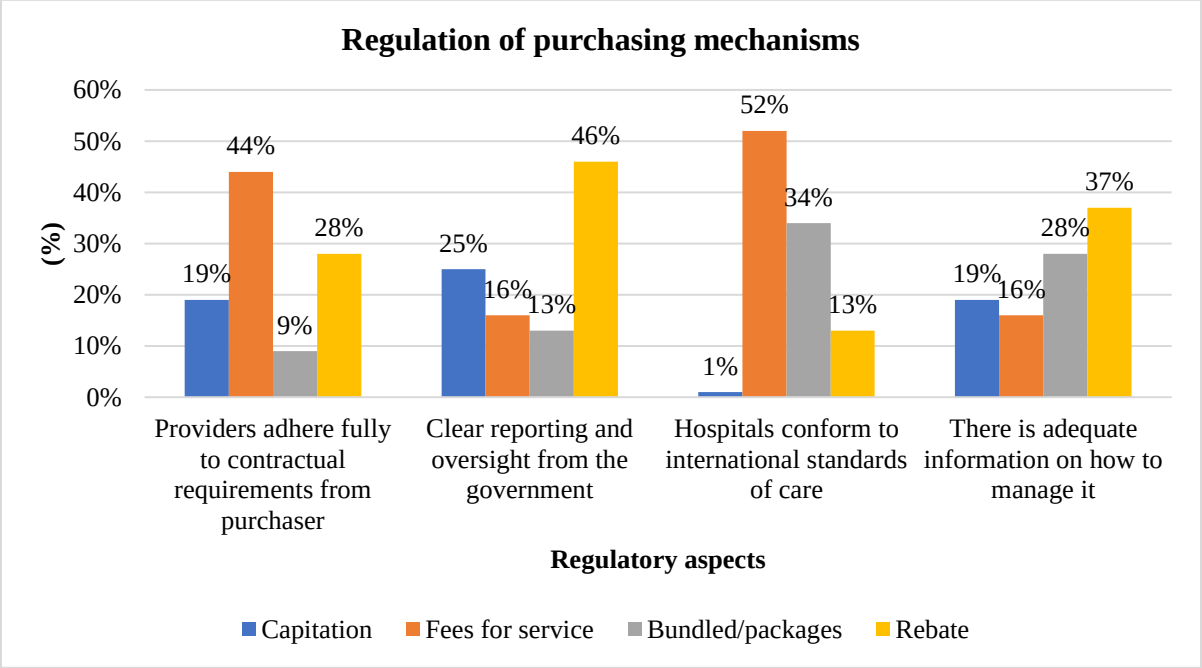



**Source**: Author's Research Data,2021

### 4.6 Regulatory Framework of Purchasing Mechanisms

The study also sought to establish if there exist a regulatory framework between NHIF and the parent Ministry of Health that safeguards the resources pooled together in form of member contributions and government funding as well as a clear governance structure and reporting mechanism between NHIF and contracted hospitals. It was noted that only public hospitals have a clear governance and accountability structure. However, there is an imbalance between the number of public hospitals and private hospitals geographically which affect access. In addition, findings indicate that hospitals using the fee for service mechanism conformed to regulatory framework on aspects of adherence to contractual requirements (44 per cent) and conforming to international standards (53 per cent). Hospitals using the rebate mechanism had the lowest cases of fraud (46 per cent) and also indicated they had adequate information on managing the mechanism (37 per cent). The findings are as shown below:

**Figure 4.9**: Regulation of Purchasing Mechanisms




**Source**: Author's Research Data,2021

### 4.7 Improving of purchasing mechanisms to scale up universal health coverage.

Views were sought from both the hospital and NHIF officials on how the current purchasing mechanisms can be improved so as to help achieve UHC in the country. Suggestions with high frequency include widening the disease covered in the current contractual arrangement (26 per cent); Introducing and implementing the Diagnostic Related Grouping (DRG) purchasing

mechanism as well as introducing a mixed purchasing mechanism that combines more than one method.

Majority of the respondents from the citizens category (33 per cent) observed that increasing the amount reimbursed to capitated healthcare providers would go a long way to improving the care given in the hospitals by ensuring equal distribution of the burden of care and hence protect people against out-of-pocket expenditure. Others were: - enhancing chronic packages in the purchasing mechanism, fully automating the claims process as well as widening the scale of diseases covered.

### 4.7.1 Adopting other purchasing mechanisms

Both the internal and external respondents were asked to give suggestions on other mechanisms currently not being used by NHIF that the organization can adopt to better address the emerging health challenges and accelerate achievement of UHC in the country through provision of affordable, accessible, and equitable coverage to all Kenyans. Majority of the respondents (57 per cent) viewed Diagnostic Related Grouping mechanism (DRG) as the most preferred. Other findings were: Global budget (13 per cent), Line-item budget (12 per cent) while 20 per cent were satisfied with current mechanisms.

### 4.7.2 Critical Analysis of the Findings

From the findings, the fees for service and bundled mechanisms provided for quality care in majority of the hospitals visited as the amounts reimbursed to hospitals was adequate and timely as asserted by Ayako H, (2020). On the other hand, both the capitation and rebate purchasing mechanisms were found to be inadequate in as far as enabling access to quality care was concerned. This was because the hospitals indicated the amounts they received from NHIF, which often delayed, were inadequate to provide the necessary treatment.

Inadequate capitation and rebate rates led to hospitals doing unnecessary admissions and referrals which in turn led to inefficient use of resources. Further, this supports the assertion by Munge K, (2017) that the quality of health services is affected by hospitals rationing services offered to sick members.

The fee for service and bundled mechanisms had key strengths in their ability to respond positively to customer care needs (Hurst,1992) and in their ability to serve a wide geographical area (Cashin et al, 2011). It was also noted that NHIF reimburses healthcare providers under these models without delay.

Suggestion to improve efficiency in the claim process from across public, private, and faith-based hospitals was the need to adopt a single online process to reduce bureaucracy and improve the turnaround time which in turn would ensure more patients were attended to in any given day.

Patients particularly under civil servants and police schemes indicated they got the services they needed in hospital without being asked to pay extra charges. This was however not the case for informal sector members who do not have access to services under these mechanisms as shown in a study by Aji B, (2013). Members of the public reported to having received poor services and being referred to other hospitals as the hospitals using both capitation and rebate mechanisms tried to minimize costs.

Hospital management reported not being involved in the design of these mechanisms by NHIF and hence setting up low rates which could not cater for treatment costs. Majority of hospital administrators indicated that their involvement in design and costing of purchasing mechanism would not only motivate them to offer efficient services but also improve the quality of care. There is therefore a need for more stakeholders' engagement when designing and reviewing the purchasing mechanisms.

Additionally, for public hospitals, delay in receiving funds was occasioned by the requirement of the Public Finance Management Act (2012) which restricts public hospitals direct expenditure of funds received. This points to a policy design issue within the health system. The requirement to deposit the funds paid from NHIF to the county revenue fund and later get approval took a lot of time and at times less amounts were paid to the hospitals which in turn affected their service provision. This change was necessitated by devolution where some hospitals were put under county government which took away their financial autonomy. The net effect of this was demotivation to public hospitals which in turn affected the quality of healthcare in these hospitals.

The study also established presence of contractual arrangement between NHIF and hospitals according to reports by NHIF (2020). These guided the operational aspects of the contracts although minimum enforcement of contractual obligations in the hospitals was being done which points to a policy implementation issue as contended in previous work by Tran Thi Mai O et al (2016) in the context of LMICs. This notion is supported by Reeves et al, (2015) who

argue that such contracts should specify the kind of care to be provided, the basis for such provision and the beneficiary of such care.

Suggestions on enhancing the current purchasing mechanisms to accelerate attainment of UHC in the country include maintaining regular and prompt payments to healthcare providers as well as enhancing the benefits offered in the contractual arrangements. This would ensure equity in access to health services irrespective of one's age, color, geographical location, gender, and one's social-economic status.

# CHAPTER FIVE

# SUMMARY, CONCLUSIONS AND POLICY RECOMMENDATIONS

## 5.1 Introduction

The study set to assess how efficient the current purchasing mechanisms are and if they can help achieve universal health coverage in Kenya. The focus was on capitation, rebate, fees for service and the bundled mechanisms. This chapter will therefore present a summary of the study findings, conclusion and recommendations as well as suggest areas for further research.

## 5.2 Summary of Findings on objectives

### 5.2.1 Efficiency in Delivery of Quality Care

Lohr, (1990) defines quality care as the extent to which services of health for people and community increase the possibility of desired outcomes of treatment that are consistent with available knowledge in the profession. According to WHO (2010), universal health coverage entails having quality, affordable and accessible care to the population. These indicators were assessed for each of the four mechanisms.

The fees for service and bundled mechanisms provided for quality care in majority of the hospitals visited as the amounts reimbursed to hospitals was adequate and timely as asserted by Ayako H, (2020). However, these were only available to a small fraction of the population leaving the majority without access to proper care and therefore they failed to bridge the gap in access to care as posited by Glassman A, (2016).

Since 2010 when NHIF reviewed its benefit packages to include outpatient services, there has not been any deliberate effort to review both the capitation and rebate rates, yet hospitals reported the cost of managing patients has gone up. Despite the delay, private and faith-based hospitals reported that the capitation and rebate mechanisms were a good source of revenue for them as they were paid as a lumpsum which helped them finance their budgetary needs.

### 5.2.2 Equity and Financial Protection

The two mechanisms (capitation and rebate) which were mainly used by public hospitals and low-cost private hospitals did not offer financial protection to members as they were either forced to pay for tests (Barasa E, 2017) or buy drugs from their pockets which in turn increased their out-of-pocket expenditure on health (Chuma J, 2013) and therefore did not see value for the money they paid to NHIF as premium for health coverage.

Hospitals reported the fees for service and package mechanisms to be administratively burdensome as a lot of documentation was involved in the claim process. In addition to uploading the documents in the online system, hospitals were required to submit hard copies to NHIF offices which took a lot of time, and this made many hospitals prefer other insurances. In addition, patients who indicated to having used the rebate mechanism noted that their admission days were increased so the hospitals could increase the amount they got reimbursed from NHIF. The current purchasing mechanisms used by NHIF do not therefore promote equity and financial protection to all the citizens when accessing health services in hospitals.

### 5.2.3 Transparency and Accountability

Despite NHIF being a State Corporation, the study established there was a weak regulatory framework between NHIF governed by the Act (2014) and the parent ministry which lacked capacity to address issues of social health insurance. Most of the purchasing decisions made by NHIF were autonomous without proper consultations as asserted by Tsofa B, (2016). The weak accountability mechanism led to loss of resources through fraudulent activities as argued by Munge K, (2015).

In addition, the self-assessment process by hospitals created loopholes which in some cases led to fraud, abuse and overall loss of funds contributed by members as well as unnecessary care to members so hospitals could earn more. According to WHO, (2010) fraudulent activities in hospitals are among the ten causes of inefficiency globally in health systems. The current mechanisms used by NHIF lack the necessary framework for accountability and transparency.

## 5.3 Conclusion

Cashin et al (2015) describe capitation as a purchasing mechanism where the purchaser pays the provider a specified amount of money in advance so as to give a clearly defined number of health interventions for a given period of time to specific individuals. According to Busse et al (2011), the rebate mechanism is used when the goal is to improve efficiency and increase bed capacity when the capacity to manage by both the providers and the purchaser is limited.

The study established that although capitation and rebate purchasing mechanisms were easy to manage and allowed for equitable health coverage across populations, they were found not to be efficient in the delivery of quality care to members due to the limited services available, low reimbursements to hospitals as well as lack of portability of health services.

Additionally, members using these mechanisms to access health services in hospitals were forced to co-pay hence lacked financial protection as highlighted by Kutzin J, (2008) thereby incurring out of pocket expenditure which could further drive them into poverty WHO, (2014). This is not in line with the goal of universal health coverage which seeks to ensure all people have access to quality care that they require, when they require it without suffering financial hardship.

In addition, Cashin et al (2011) define bundled payment/package as a purchasing mechanism that sets a fixed price for a collection of healthcare services that are related to an episode of care. Hurst (1992) posits that the fees for service mechanism provides for the purchaser to fix the fees paid for each service in advance and pays the hospital for each individual service provided.

From the study, it was noted that the fees for service and the bundled mechanisms provided for limited access to quality services as only a section of the population could get health benefits from a wide range as well as providing specialized care as posited by Maceira, (2008).

In the Kenyan Constitution, under the Bill of Rights, people have a fundamental right to the highest possible standards of health and that should be the goal of the universal health agenda as argued by Ayako, (2014). The study therefore asserts the hypothesis that the purchasing mechanisms used by NHIF do not promote efficient delivery of quality health services by providers.

Further, the literature review also indicated that quality of care improved in some countries such as United States since introduction of case-based method. Adopting of case-based method will provide cost controls by the provider and also improve the quality of care that is much needed at a time when the organization is widening coverage and enhancing benefits offered. Healthcare providers and internal staff were of the view that the method provides a wide range of diseases to be covered while ensuring tight controls to check malpractices.

## 5.4 Recommendations

### 5.4.1 Short-Term Recommendations

1. NHIF should review the current capitation and rebate rates upwards to address under provision of services by hospitals due to inadequate reimbursements.

2. NHIF branches countrywide should engage hospital stakeholders and county governments to address issues raised on delayed payments to hospitals and lack of essential drugs in county health facilities.
3. To address the issue of chronic illness not being covered, NHIF should implement a chronic illness package covering diabetes and hypertension.

### 5.4.2 Medium-Term Recommendations

1. Further, the study recommends that the government through the Department of Social Services, scales up coverage of the vulnerable members of the community including the poor, persons with disability and the elderly who cannot afford to pay the monthly premiums to NHIF.
2. The government, and specifically the Ministry of Health should take a more active role in promoting transparency and accountability of funds under NHIF. The study showed minimal oversight of NHIF except through the Annual Auditor General reports.
3. NHIF Should fully embrace all aspects of strategic purchasing which according to Mathauer et al (2017) encompasses active engagement based on evidence to define service matrix and volume by choosing a mix of providers that maximizes the objectives of the society.

### 5.4.3 Long-Term Recommendations

1. NHIF to consider adopting Case Based or Diagnostic Related Grouping purchasing mechanism. This mechanism involves paying health providers based on which disease they treat at a given agreed fee.
2. The government, through parliament should consider reviewing the Public Finance and Management Act of 2012 to allow for autonomy in the use of funds by public hospitals without necessarily having to deposit the revenue received in the county revenue fund. This can also be done by the respective county assemblies passing bylaws to allow hospitals in their jurisdiction operate bank accounts and receive and utilize money from NHIF.
3. Additionally, the Ministry of Health, and the respective County Departments of Health should focus on preventive measures as opposed to curative by investing in primary care. This is because, infectious diseases such as malaria are cheaper to prevent than treat in the long term.

### 5.5 Implication of the Study on Policy, Theory and Practice

The study acknowledges the role of NHIF as the social health insurer and as a link between the resources pooled by members in form of premium contributions from both the informal and formal sectors and purchasing of health services offered by hospitals. As an agent of the members, NHIF has a responsibility to ensure the services the hospitals provide are of high quality, affordable in terms of cost and accessible by majority of the population when they need them. The study recommends a deliberate effort to reform NHIF from a passive to a strategic purchaser of health so as to meet the goals of universal health coverage.

In terms of practice, the study findings offers lessons to NHIF as the country's social health insurer in as far as understanding best practices of purchasing services from health care providers is concerned. This is poised to strengthen the government's effort towards the attainment of health coverage to the whole population.

In terms of policy, the study findings will help develop policies on health financing in the country as it reforms its health systems towards achieving universal health coverage and offer lessons for a broader setting in other Low-and- Medium- Income in pursuit of UHC particularly under a framework of social health insurance.

### 5.6 Suggestions for Further Studies

The study focused only on health purchasing mechanisms under NHIF namely capitation, rebate, fees for service and bundled. Further studies on other mechanisms such as line budget, pay for performance, global budget, and diagnostic related grouping (DRG) mechanisms and how they can be used in the country to help accelerate the achievement of universal health coverage in Kenya should be undertaken.

In addition, this study only focused on NHIF accredited hospitals under public, private, and faith-based categories. The experiences of non-accredited hospitals have not been captured and would provide for further studies to understand how purchasing of healthcare in these hospitals is undertaken as well as their role in the quest by the government to achieve universal health coverage in the country.

Further quantitative studies should be undertaken to establish the long-term financial impact on NHIF in terms of sustainability as it continues to offer enhanced benefits under these purchasing mechanisms.

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# APPENDICES

## APPENDIX I: PROJECT TIME FRAME

| | Concept Note Submission | Proposal Writing | Proposal Defense | Data Collection | Data Analysis | Report Writing | Project Defense | Project corrections | Project Submission |
|---|---|---|---|---|---|---|---|---|---|
| **June2020-October 2020** | | | | | | | | | |
| **November 2020-May 2021** | | | | | | | | | |
| **June 2021** | | | | | | | | | |
| **July-September 2021** | | | | | | | | | |
| **September-December 2021** | | | | | | | | | |
| **January-May 2022** | | | | | | | | | |
| **June 2022** | | | | | | | | | |
| **July-Sept 2022** | | | | | | | | | |
| **October 2022** | | | | | | | | | |

**APPENDIX II: QUESTIONNAIRE FOR KEY RESPONDENTS**

*(National Hospital Insurance staff & Healthcare provider representatives)*

My name is Jamleck Njoka, a Master of Public Administration student at the University of Nairobi. As partial fulfillment for the completion of my course, *I am conducting a study "Effectiveness of health purchasing mechanisms in achieving universal health coverage. A case study of National Hospital Insurance in Kenya (2010-2018)"*. This questionnaire is intended to collect data that will be used for academic purpose only. All responses will be confidential and solely used for purposes of this study.

**A. General Information**

1. Gender

   Male ◯ Female ◯

2. NHIF Staff only

   Head office ◯ Region ◯ Branch Office ◯

3. a). Health care Provider official Only b). Healthcare Provider Category

Government/County ◯ Superintendent ◯

Faith-based ◯ Administrator ◯

Private ◯ Hospital Owner ◯

**B. Efficiency in Purchasing Mechanisms**

1. Which purchasing mechanisms used by National Hospital Insurance Fund is associated with the following aspects of efficiency? (*Tick where appropriate*)

| | Capitation | Fees for service | Bundled | Rebate |
|---|---|---|---|---|
| Immediate reimbursements to contracted Healthcare providers | | | | |
| Few administrative bureaucracies | | | | |
| Less challenging in managing | | | | |

2. How much do you agree/disagree with the following statements?

Bundled services in NHIF are approved in a timely manner.

Strongly agree ○ Agree ○ Neutral ○ Disagree ○ Strongly Disagree ○

**C. Equity and Financial protection**

**1. Equity**

Which purchasing mechanism used by National Hospital Insurance Fund is associated with the following aspects of Equity?

| | Capitation | Fees for service | Bundled | Rebate |
|---|---|---|---|---|
| Ability to enable members get the health services they need | | | | |
| Covers a wide range of treatments | | | | |
| Provides a wide range of specialized care | | | | |

1. **Financial protection**

| | Capitation | Fees for service | Bundled | Rebate |
|---|---|---|---|---|
| Out of pocket payments not required | | | | |
| Out of pocket payment hardly required | | | | |
| Out of pocket payment always required | | | | |

**2. Quality**

Which of the following purchasing mechanism used by the National Hospital Insurance Fund is associated with the following aspects of quality care?

| | Capitation | Fees for service | Bundled | Rebate |
|---|---|---|---|---|
| Patients' needs are fully addressed | | | | |
| Patients are thoroughly informed about their treatment | | | | |
| Doctors respond to queries from patients | | | | |
| Friendliness of care givers | | | | |

**3. Regulation**

Which purchasing mechanism used by National Hospital Insurance Fund are associated with the following aspects of regulatory framework?

| | Capitation | Fees for service | Bundled | Rebate |
|---|---|---|---|---|
| Contracted Healthcare providers adhere fully to contractual requirements | | | | |
| Healthcare providers have few fraudulent cases | | | | |
| Healthcare providers conform to international standards of care delivery | | | | |
| Purchasing mechanism has adequate information on how to manage it | | | | |

**4. Improving existing purchasing Mechanisms**

To accelerate achievement of UHC in the country, how can the current purchasing mechanisms used by NHIF be improved from a provider's perspective?

…….

## APPENDIX III: QUESTIONNAIRE FOR NHIF MEMBERS

***(To be filled by NHIF members accessing benefits at accredited healthcare providers).***

My name is Jamleck Njoka, a Master of Public Administration student at the University of Nairobi. As partial fulfillment for the completion of my course, *I am conducting a study "Effectiveness of health purchasing mechanisms in achieving universal health coverage. A case study of National Hospital Insurance in Kenya (2010-2018)"*. This questionnaire is intended to collect data that will be used for academic purpose only. All responses will be confidential and solely used for purposes of this study.

### A. Demographics

1. Gender

   Male ○ Female ○

2. Location

   Urban ○ Near Urban Area ○ Rural ○

3. Which NHIF scheme are you covered under?

   National Scheme ○ Civil Servant scheme ○

   National Police scheme ○ Retirement scheme ○

4. In the last 12 months which NHIF service have you sought?

   Inpatient ☐ Specialized lab results ☐

   Outpatient ☐ Radiology services ☐

   Maternity ☐ Oncology services ☐

5. In the last 12 months, have you received a service that require preauthorization?

   a). Yes ○ No ○

   b). If yes, which service was it?.....

**B. Efficiency in purchasing Mechanisms**

How satisfied were you with the following areas when seeking services in a healthcare contracted by NHIF?

| | Satisfied | Not Satisfied |
|---|---|---|
| Time taken to see a healthcare worker | | |
| Amount of paperwork/documentation involved | | |
| Time taken to receive prescribed drugs | | |
| Time taken to receive laboratory results | | |
| Time taken to approve service requiring preauthorization from NHIF. | | |

**C. Equity and Financial Protection**

1). **Equit**y

How satisfied are you with the following elements when seeking healthcare service?

| | Satisfied | Not Satisfied |
|---|---|---|
| Time taken to reach the nearest NHIF contracted healthcare provider. | | |
| Ability to access healthcare services without discrimination | | |
| Affordability of premiums paid to NHIF. | | |

**2). Financial protection**

Have you incurred any out-of-pocket expenditure while accessing services at NHIF contracted services?

Yes ○ No ○

If yes, kindly indicate the extent below.

Out of pocket expenditure was negligible ○

Out of pocket expenditure was manageable ○

Out of pocket expenditure was high ○

Out of pocket expenditure was out of my reach ○

**D. Quality**

How much do you agree with the following statements when seeking health services?

| Medical staff were available | Agree | Disagree |
|---|---|---|
| I got the treatment I needed | | |
| The treatment I received worked for me | | |
| Doctor/medical officer responded to all my queries | | |
| Availability of laboratory tests | | |
| Availability of drugs | | |
| | | |

**Thank you for your cooperation.**

## APPENDIX IV: DEPARTMENTAL AUTHORITY LETTER.

University of Nairobi
COLLEGE OF HUMANITIES AND SOCIAL SCIENCES
Department of Political Science & Public Administration

Telegrams: "Varsity", Nairobi
Telephone: 318262 ext. 28171
Telex: 22095 Varsity
Email: dept-pspa@uonbi.ac.ke

P.O. Box 30197
Nairobi, Kenya

24/6/2021

==========

### TO WHOM IT MAY CONCERN

### AUTHORIZATION TO CONDUCT FIELD RESEARCH

This is to confirm that Jamleck Mithamo Njoka of Registration Number (C51/35095/2019) is a bonafide student in the Department of Political Science and Public Administration, University of Nairobi.

Jamleck is pursuing a Degree in Master of Public Administration. He is researching on, **"Effectiveness of Purchasing Mechanisms in the Achievement of Universal Health Coverage: A case study of National Insurance Fund in Kenya".**

He has successfully completed the first part of his studies (Course work) and is hereby authorized to proceed to conduct Field Research. This shall enable the student to collect relevant data for his academic work.

It is against this background that the Department of Political Science and Public Administration, University of Nairobi requests your assistance to enable the student in collecting relevant academic data. The information obtained shall be used only for academic purposes.

The student is expected to abide by your regulations and the ethics that this exercise demands. In case of any clarification, please feel free to contact the undersigned. Thanking you for support.

Yours Sincerely,


Professor Fred Jonyo (PhD, Makerere)
Chairman,
Department of Political Science and Public Administration,
UNIVERSITY OF NAIROBI

## APPENDIX V: NACOSTI RESEARCH LICENSE.

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 599663

Date of Issue: 02/July/2021

### RESEARCH LICENSE

This is to Certify that Mr.. Jamleck Mithamo Njoka of University of Nairobi, has been licensed to conduct research in Kajiado, Kiambu, Machakos, Mombasa, Nairobi, Nyeri on the topic: Effectiveness of Health Purchasing Mechanisms in Achieving Universal Health Coverage in Kenya. A case study of NHIF. for the period ending : 02/July/2022.

License No: NACOSTI/P/21/11438

599663

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

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## APPENDIX VI: NHIF RESEARCH AUTHORITY

Afya Yetu.Bima Yetu

HF/PUB/13/VOL.II/221

1st July 2021

**Jamleck Njoka**

University of Nairobi

P.O BOX 30197 - 00100

NAIROBI.

**RE: REQUEST TO CONDUCT AN ACADEMIC RESEARCH STUDY AT NHIF ON "EFFECTIVENESS OF PURCHASING MECHANISMS IN THE ACHIEVEMENT OF UNIVERSAL HEALTH COVERAGE: A CASE STUDY OF NATIONAL INSURANCE FUND IN KENYA (2010-2018)"**

Reference is made to your letter dated 25th June 2021, in which you requested the management of National Hospital Insurance Fund (NHIF) to grant you permission to visit and interview Branch and Head office staff for an academic study on **"Effectiveness of Purchasing Mechanisms in the Achievement of Universal Health Coverage: A case study of National Insurance Fund in Kenya (2010-2018)".**

We are pleased to inform you that your request has been granted and the authorization is for the duration of the study with effect from the date of this letter. Further, you are advised to report to Manager Research & Policy at NHIF Head Office on the 8th floor before embarking on the exercise. Upon completion, you will be expected to submit a copy of your research report to NHIF Chief Executive Officers' office.

If you need further assistance, do not hesitate to contact the undersigned and we look forward to the study outcome.

Yours Faithfully,

**SHADRACK OWANDO**

**For: Chief Executive Officer**

For Chief Executive Officer
National Hospital Insurance Fund
P. O. Box 30443 - 00100,
Nairobi

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