INFLUENCE OF NATIONAL HOSPITAL INSURANCE FUND ON ACCESS TO HEALTHCARE IN KENYA: A CASE STUDY OF NAIROBI COUNTY

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C52/11514/2018

RESEARCH PROJECT SUBMITTED IN PARTIAL FULLFILMENT OF THE REQUIREMENT OF THE AWARD OF THE DEGREE OF MASTER OF RESEARCH AND PUBLIC POLICY OF UNIVERSITY OF NAIROBI, DEPARTMENT OF POLITICAL SCIENCE AND PUBLIC ADMIMISTRATION.

2022

DECLARATION

This research project is my original work and has not been submitted to any other University.

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This research project has been submitted for examination with my approval as the supervisor appointed by the University of Nairobi.

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ACKNOWLEDGEMENT

I acknowledge God for His love and grace which have kept my belief. I specially acknowledge my supervisor, Dr. Joseph Obosi for his unwavering and immeasurable support all through from the start of this project to completion. My acknowledgment also goes to the Department of Political Science and Public Administration of the University of Nairobi for giving me the chance to study and support my work. Lastly, I acknowledge my classmates who provided emotional support to help me complete this project.

DEDICATION

To the Almighty God, I dedicate this study for He is good. I also dedicate this research project to my brother; Mr Samson Diang'a for his financial support and advice.

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LIST OF ABBREVIATIONS AND ACRONYMS

NHIF	National Hospital Insurance Fund
OOP	Out-Of- Pocket
UHC	Universal Health Coverage
NHIS	National Health Insurance Scheme
WHO	World Health Organization
SDG	Sustainable Development Goals
GDP	Gross Domestic Product

ABSTRACT

The study focused on the primary objective which was to investigate influence of National Hospital Insurance Fund on access to healthcare in Kenya. The specific three objectives were to establish the influence of National Hospital Insurance Fund policy choices by members on access to healthcare in Kenya, to assess the contribution of various National Hospital Insurance Fund policy products on access to healthcare in Kenya, to investigate National Hospital Insurance Fund policy implementation challenges impeding universal access to healthcare in Kenya. The mixed methodology design was adopted and was used to collect qualitative and quantitative data. The Statistical Package for the Social Sciences was used to enter and analyze data from the participants and respondents drawn from the National Hospital Insurance Fund administrators and members of National Hospital Insurance Fund. The findings showed that National Hospital Insurance Fund policy choices by members, National Hospital Insurance Fund policy products and National Hospital Insurance Fund policy implementation challenges have significant influence on access to healthcare. The conclusion of the study was that members of National Hospital Insurance Fund were satisfied with the policy choices available, and the policy products provided compared to when they were not members even though the coverage was not comprehensive in all categories available, and the study acknowledged that there were challenges affecting implementation of National Hospital Insurance Fund. The studies recommended that National Hospital Insurance Fund to strengthen its choices and products covered and communicate appropriately to ensure that members have their coverage extended to comprehensive level. The study also recommended further examination on National Hospital Insurance Fund policy through a public process on mechanisms to ensure zero defaults and that every Kenyan becomes a subscriber by focusing on reviewing of terms and conditions and studies on National Hospital Insurance Fund should be carried out on role of other factors such as the culture and religion on National Health Insurance.

CHAPTER ONE

INTRODUCTION

1.1. Background to the study

Healthcare involves measures and efforts put in place to maintain and restore the well-being of people mentally, emotionally, and physically by trained professionals (Mosadeghrad, 2014). Healthcare is meant to ensure wellness of people so that they can attend to their various duties normally and timely. However, healthcare services are never free but attract payment from those patients seeking various healthcare services (Brown, Hole , & Kilic, 2014).

In 1948, Universal Declaration of Human Rights of United Nations General Assembly affirmed that healthcare is a human right and should be observed in the constitutions and policies (Arcaya, Arcaya, & Subramanian, 2015). For many years, people seeking healthcare have been paying for the services Out-Of-Pocket (World Health Organization, 2016). Some countries have private healthcare insurance funds in which membership is voluntary and individuals subscribe on their own while some organizations pay healthcare services for their employees through their health insurance programs (Hardiman, 2012).

Healthcare has topped the global agenda among the Sustainable Development Goals in the 58th World Health Assembly, where states were persuaded to introduce a prepaid healthcare financial system called Universal Health Coverage for everyone to ensure sharing risk, avoiding panic, expensive and unbearable expenditure on healthcare which might result to vulnerability and poverty (Abuya, Maina, & Chuma, 2015). Universal healthcare mechanisms involve three factors to operate which includes collection of revenue, accumulation/pooling and purchasing. Revenue collection implies that individuals remit money to the healthcare systems. Pooling entails that revenues accumulated are shared among the pool of contributors as a pool. Purchasing is the end product of the circle whereby the collected revenues are paid to healthcare providers for healthcare services (Kimani, Ettarh , Kyobutungi, Mberu, & Muindi, 2012).

Globally countries have disproportionate economic capabilities in terms of Gross Domestic Product which affects their budgets associated with healthcare priorities (Papanicolas, Woskie, & Jha, 2018). In the case of China, healthcare insurance is regulated by the government through taxation (Meng & Tang, 2010). The Chinese's three public health insurance schemes established by their government comprise of Urban Employee Basic Medical Insurance, Urban Resident Basic Medical Insurance and New Rural Co-operative Medical Scheme to ensure accessible and affordable healthcare to its citizens (Yu, 2015).

In Sub-Saharan Africa, countries have been striving to make healthcare accessibility achievable to everyone through affordable public health insurance schemes (Gautier & Ridde , 2017). Rwanda is among the developing countries in Eastern Africa which has a clearer pathway towards the Universal Healthcare through a community-based health insurance scheme known in their local language as *Mutuelle de Santé* under their Ministry of Health (Shimeles, 2010).

To ensure accessible and affordable healthcare for all and to drive a roadmap to universal healthcare, the government of Kenya established National Hospital Insurance Fund for the formal sector employees through an Act of Parliament Cap 255 of the laws of Kenya in 1966 (Barasa, Rogo, Mwaura, & Chuma, 2018). NHIF was later transformed by Members of Parliament and named NHIF Act No. 9 of 1998 to cover both informal and formal sector employees in need of inpatient and outpatient services (National Hospital Insurance Act No.9, 1998).NHIF members contribute as per their income scale but voluntary category pays Ksh 500 monthly, the employed with lower salary contributing Ksh 150 and Ksh 1,700 for those earning one hundred thousand Kenya shillings and above every month (National Hospital Insurance Fund, 2020).

1.2 Statement of the Research Problem

The post-colonial government of Kenya established after independence in 1963 considered health policy reform and development agenda to create a healthy working nation envisaged in the Sessional Paper No. 10 of 1965 on African Socialism and its application to Kenya prioritizing poverty elimination, eradication of diseases and illiteracy (Wamai, 2009). To realize access to healthcare for all, the Kenyan government introduced the free access health policy which resulted to abolition of Ksh 5 which was initially a shared cost on health between the government and citizens in 1965 (Wamai, 2009) as Out-of-Pocket purchases for healthcare were not sustainable as well given that majority of Kenyans could not afford healthcare via Out-Of-Pocket hence less likely to seek healthcare services when ill which led to more deaths (Chuma & Okungu, 2011). However, user free healthcare was not sustainable as the socio-economic activities could not support free healthcare hence the government introduced user fees to help maintain access to healthcare to boost health budget under the Ministry of Health (Wamai, 2009).

To remain relevant to her healthcare reform, the Kenya government established four health policy components to drive access to healthcare, among them was development of health insurance scheme (Wamai, 2009). The government of Kenya reviewed NHIF membership through NHIF Act No. 9 of 1998 by an Act of parliament to cover both formal and informal employees for in-patient and out-patient healthcare assistance for spouses and children of under 18 years of age (National Hospital Insurance Act No.9, 1998) and NHIF became a state corporation presently covering only about 15% of the Kenyan population as a mechanism to achieving accessible health to all (Munge, Mulupi, Barasa, & Chuma, 2018). The NHIF has further introduced other packages including Supa Cover in 2015 priced at Ksh500 monthly for the informal sector employees and the unemployed but willing to become members, formal sector employees with lower salaries of at least Ksh 1000 pay Ksh 150 and Ksh 1700 for those formal employees earning above one hundred thousand Kenya Shillings monthly (National Hospital Insurance Fund, 2020) and reimbursements to health facilities

for the inpatient services after provision of the services as per the services offered at daily rates depending on accreditation level of the facility while the outpatient services are paid on flat monthly fees provided the NHIF member selected that particular facility as their primary health center (Sieverding, Onyango, & Suchman, 2018).

Despite several policy changes in regard to access to healthcare, the National Hospital Insurance Fund is yet to dispense accessible universal healthcare for all. There is still high amount of unaffordability of NHIF's premiums resulting to low adoption and uptake hence marginalizing the unemployed and the poor majority. There are efficiency concerns at NHIF related to weak and compromised quality control procedures resulting in purchase of inferior and compromised quality of healthcare arising from failure to evaluate quality of care and clinical audits causing technical inefficiency, limited range of benefits received as certain services including medicines, laboratory, radiological tests, limited packages in some diseases and cases of fraud have increased. It is against this background that this research wishes to probe the extent to which the National Hospital Insurance Fund policy has enhanced access to healthcare in Kenya

1.3 General Research Question

The broad research question is to investigate how National Hospital Insurance Fund has influenced access to healthcare in Kenya?

1.2.1 Specific Research questions

i. How do NHIF policy choices influence access to healthcare?
ii. How do various NHIF policy products contribute to access to healthcare?
iii. How do NHIF policy implementation challenges impede access to healthcare?

1.3 General Research Objective

Primary objective is to investigate influence of National Hospital Insurance Fund on access to healthcare in Kenya

1.4.1 Specific Research Objectives

i. To establish the influence of NHIF policy choices by members on access to healthcare
ii. To assess the contribution of various NHIF policy products on access to healthcare
iii. To investigate NHIF policy implementation challenges impeding universal access to healthcare

1.5. Justification of the study

This section outlines the benefits and the rationale of this study. It describes the theoretical justification and policy justification.

1.5.1. Academic Justification

The findings of this study would complement the study by (Barasa, Rogo, Mwaura, & Chuma, 2018) on Kenya National Hospital Insurance Fund Reforms: Implications and Lessons for Universal Health Coverage health insurance schemes in the context of the influence of NHIF on access to healthcare and other future studies on influence of health insurance schemes/Funds. The findings of this study may add insights to researchers on other healthcare programs.

1.5.2 Policy justification

The study was intended to provide information to policy makers to enhance interventions concerning universal healthcare implementation in Kenya and abroad through harnessing the beneficiary and stakeholder needs and expectations. The NHIF being a public corporation responsible for ensuring affordable healthcare to its members will benefit from data which was centered on the experiences and views of the members to identify sections of the policy that needs improvement to increase the NHIF coverage from the current low membership.

1.6 Scope of the Study

The focus of this research was to investigate influence of National Hospital Insurance Fund on access to healthcare in Kenya. It was carried out in the following Nairobi Sub-Counties; Embakasi East, Dagoreti South, Kamukunji, Kasarani, Kibra, Westlands and Makadara. The target population of the study was the NHIF members mainly the principal contributors who were above 18 years both female and male sexes, formal employees, informal employees, and voluntary contributors. The research covered the period from the year 2000 to 2019 of the operation of NHIF in Kenya. The study was carried out for a period of two months.

CHAPTER TWO

LITERATURE REVIEW

2.1. INTRODUCTION

This section unveils the review of relevant literature concerning influence of NHIF on access to healthcare guided by the study objectives with a view to identifying the gaps that needed to be filled by the study. The objectives were each divided into sections as indicators of the research topic.

2.2. Influence of NHIF policy choices by members on access to healthcare

In an attempt to access healthcare, individuals choose among the national health insurance funds available, or the state may take charge to ensure that health insurance is mandatory either as a constitutional right or through a governmental policy (Hermans & France, 1998). Under this objective, benefits of the scheme, Cost, and Quality of care are reviewed.

2.2.1. Benefits of the scheme

Individual subscribers to health insurance policies and the organizations that enroll their employees to various healthcare insurance institutions base their preferences on the outcome benefits they will get out of their subscription. As founded by (Boateng & Awunyor-Vitor, 2013), subscribers of National Health Insurance Scheme in Ghana decided to join also considered renewing membership especially those on voluntary basis as per the benefits perceived. People's belief that health insurance membership means contentment to settle the hospital bills without borrowing or experiencing financial shortage when need for hospital care arise had been vindicated as evidenced in their continuous remittance of the health insurance funds (Boateng & Awunyor-Vitor, 2013). Those who have national health insurance policies are conscious about what to expect when need arise i.e., when they fall sick and must have to consult a physician so as to regain their wellness. Therefore, it is not a matter of asking what kind of attention they need or whether the kind of ailment they are suffering from, but they are already aware

of the benefits they subscribed for, for example cancer treatment, maternal care, tropical diseases among other health benefits.

When people are not aware or not knowledgeable on how they can claim their national health insurance benefits or are not well savvy with the benefit catalogue of the health insurance, they may not see the need to subscribe or may as well default which eventually leads to under-utilization (Boateng & Awunyor-Vitor, 2013). The Phil Health as instituted by the Philippine government (Obermann, Jowett, & Kwon, 2018) has a broad benefit package comprising of inpatient, out-patient and special packages, however there are some limits on coverage including cost-ineffective procedures, alcohol dependency and treatment and obstetrical deliveries beyond the fourth delivery. The Philippines Phil Health has also not had a clear pathway to structure its expansion or reduction of healthcare benefits to members and even the initiatives introduced by politicians and through lobbying have not resulted to relieve the public from the disease burden (Obermann, Jowett, & Kwon, 2018).

In summary of benefits of the scheme, the literature gathered shows that many a times people look at what they get out of the insurance scheme they subscribe. In as much as most of the public driven health insurance schemes are mandatory to those who are employed, the importance is based on the end results which entail the social security people get out of the insurance program. The more satisfactory the health insurance in terms of benefits the more subscription and when the benefits are minimal the more defaulters.

2.2.2. Cost

Accessibility to healthcare through public health insurance among avenues to universal healthcare is viewed as a measure to protect individuals from economic strains due to healthcare arising from expenditures on preventive, curative, management, and other healthcare needs. In this vein, financial protection therefore is a core element in the universal healthcare to abolish the out-of-pocket remittances for healthcare when health assistance is needed (Dror, Hossain, Majumdar, Koehlmoos, John, & Panda, 2016). Financial protection implies that no one seeking healthcare does not incur income losses on healthcare

expenditures but confidently access healthcare without fear of being detained or delayed processes resulting from financial incapacities. However, sometimes situations where healthcare insurance is depleted especially where the cover is limited and the insured must look for alternatives either fundraisers or sell property (Dror, Hossain, Majumdar, Koehlmoos, John, & Panda, 2016).

The perception of subscribers to insurance scheme is that the price of health insurance is very high which may mean that those who are insured would welcome the reduction of subscription fee (Boateng & Awunyor-Vitor, 2013). Some countries have adopted unique ways to realize accessibility that is affordable to all their citizens, the Social Health Security Development Committee instituted by the Nepalese government as the cost of healthcare insurance was not viable to the poor in the society so the Social Health Security Development Committee was to ensure that the marginalized, people in hardship areas and the poor access healthcare but this has never been realized due to cost associated with the program (Mishra, Khanal, Karki, Kallestrup, & Enemark, 2015). Universal healthcare in essence includes both the poor and the rich in the society hence relevant authorities need to strike a balance to ensure fairness in identification of the needy people for registration and aids (World Health Organization, 2016).

In summary, cost in terms of remittances is important in fostering growth and helps in sustaining a national health insurance program. Most governments have made it mandatory that their citizens subscribe to national health insurance funds at a cost which must be met by the individual subscribers. Though many countries have a systematic mechanism determining the amount paid depending on the salary of their citizens, it has been difficult in some countries as some cannot afford to pay their monthly subscriptions especially the unemployed and also those who are employed complain about high cost of the health insurance scheme.

2.2.3. Quality of care

Quality of care is associated with healthcare facilities, medicine and the physician involved in administering healthcare. Some studies on quality of care and insurance have different findings as (Ferris, Blumenthal, Woodruff, Clark, Camargo Jr, & Marc Investigators, 2002) posits that individual patients without health insurance policies had poor quality of healthcare compared to the insured patients and this is not different in the type of health care policy. According to (Abuosi, Domfeh, Abor, & Nketiah-Amponsah, 2016) quality of care remains the same regardless of whether an insured individual or uninsured person is involved. Quality of care is generally good and none of the patients get discriminated when they seek for health care. (Daley, Gubb, Clarke, & Bidgood, 2007) Reiterate that Switzerland has an all-inclusive access to healthcare in which all individuals are directed to purchase health insurance from the private sector and maximize on high quality healthcare, patient satisfaction, availability of drugs, shorter waiting time and excellent healthcare outcomes. However, when it comes to Ghana's strategy on access to healthcare, persons with health insurance have higher chances of accessing healthcare than those without (Abuosi, Domfeh, Abor, & Nketiah-Amponsah, 2016).

Quality of care pertaining to healthcare influences the contribution of healthcare insurance funds towards access to healthcare as in the case of Ghana where (Gobah & Liang, 2011) found that individuals subscribing to healthcare insurance were not satisfied with the healthcare affirming low quality of healthcare. According to (Mtei & Mulligan, 2007) the Community Health Fund in Tanzania which was introduced to aid access to healthcare mainly to the rural populations and self-employed has impacted healthy living to the target groups resulting to purchase of microscopes, maintenance of medicine supply, improving availability of appliances and also increased utilization of health services by members.

In summary, quality of care is an integral factor in sustainability and access to healthcare through health insurance schemes. Quality of healthcare ranges from well-equipped health care facilities, advanced medicine and adequate supply or number of physicians always attending to patients. The literature gathered has

variance under the theme of quality of care as some countries especially Africa where there exists public health insurance fund have unstable or compromised quality of health even though their citizens pay monthly contributions. When there are no physicians to attend to patients, lack of healthcare facilities and medicines yet people's salaries are deducted, or people pay voluntarily for health care insurance fund is a disservice to humanity and inhibits the core of national health insurance fund.

2.3. Contribution of NHIF policy products on access to healthcare

Health insurance products are services of health insurance covers provided for the patients who seek health care from the physicians in various healthcare centers or facilities. Under this objective, health insurance policy products reviewed include sexual and reproductive care and palliative care.

2.3.1. Sexual and Reproductive Care

The World Health Organization among other related organizations has championed provision of affordable healthcare through universal health coverage defined as provision of affordable healthcare to persons which protects them from financial exploitation when accessing health services. In as much as access to healthcare should be affordable to all, their delivery should not compromise quality (World Health Organization, 2010). Sexual and reproductive health is among the healthcare products that the universal healthcare insurance scheme in Thailand has covered for the patients who seek such services (Teerawattananon & Tangcharoensathien, 2004). Thai's tax-driven universal healthcare scheme considers reproductive and sexual health an important service that its people must easily access. Based on need, demand and supply, patients are covered under sexual and reproductive health which includes advancement, maintenance, detection and management of reproductive health complications particularly maternal death and morbidity, Human Immunodeficiency Virus (HIV), Sexually Transmitted Diseases, reproductive tract cancers, infertility, condom use and menopausal services (Teerawattananon & Tangcharoensathien, 2004).

In a comparative study by (Ogundele, Pavlova, & Groot, 2018) in Ghana and Nigeria both addressing access to healthcare for their populations, varying outcomes were observed. Ghana commenced the free maternity care to address maternal mortality levels and unsupervised deliveries among women to ensure that all pregnant or expectant women in Ghana attain maternity care services free of charge for instance prenatal evaluations, child delivery care caesarian services and postnatal care in all hospital facilities (Ogundele, Pavlova, & Groot, 2018). The Ghanaian government introduced the community-oriented health provider known as community-based health planning services focusing on provision of contraceptives, childbirth supervision and maternal care in all its districts (Ogundele, Pavlova, & Groot, 2018). On the other hand, the National Health Insurance Scheme officially kicked off in the year 2005 in Nigeria towards enhancing access to healthcare for all Nigerian citizens also has a focus on sexual and reproductive services covered though its membership is still low (Ogundele, Pavlova, & Groot, 2018).

To ensure increased coverage, health insurance arising from the community was introduced to indemnify the poor in rural areas focusing on contraceptive services, antenatal care, and childbirth though coverage remains very low in Nigeria leaving the health care burden to households (Ogundele, Pavlova, & Groot, 2018). To summarize sexual and reproductive health literature, there are a few countries that have considered it an important area to be included in the national health insurance fund. However, focus mainly is on women in matters concerning childbirth though still at low scales as majority are yet to register their membership. The literature gap identified is that the role out and adoption of sexual and reproductive health is very low among African countries.

2.3.2. Palliative care

Palliative care is concerned with addressing the needs of patients that require psychological care, supportive care and relief associated with such conditions (World Health Organization, 2007). It involves illnesses that are terminal and long-term that requires regular physician attention such as cancer and diseases that lower patient's chances of survival or being cured. Such diseases and conditions have economic, psychological, emotional and social effects to patients and their families and having palliative care in place can restore and improve their lives and also cope with new realities (World Health Organization, 2007).

In the case of Australia where there exist two national insurances to aide access to healthcare where the Medicare enables patients to fund their doctor's consultations and also partially funds public hospitals to attain equity in access to healthcare. Australian universal healthcare scheme is termed as Elective Private Health Insurance supporting private hospitals. The Australian government has also ensured that individuals access healthcare by subsidizing pharmaceuticals products. Mostly patients covered under the palliative care are those having cancer, frailty, and those suffering from organ failure all on the basis of need (Mitchell, 2011).

Germany, one of the developed countries in Europe has an established public health insurance funded through taxation covering its citizens (Schneider, Mitchell, & Murray, 2010). As a means to curb congestion in health centers, German legislators introduced palliative care in the communities popularly known as *spezialisierte ambulance Palliativversorgun* to provide palliative care through advisory of the general practitioners for proper advice and training (Schneider, Mitchell, & Murray, 2010). The palliative care services provided are cardiovascular disease, dementia, or multiple chronic conditions, and cancer. However, conditions or diseases that are not related to cancer are not encouraged for palliative care (Schneider, Mitchell, & Murray, 2010).

In Africa, there has not been a complete structured palliative care unit except for Rwanda, Mozambique and Swaziland which have established parallel state palliative programs while others have palliative care incorporated in their strategic

plans or are in the process of drafting their respective national palliative care centers (Hannon, Zimmermann , Knaul, Powell, Mwangi-Powell, & Rodin, 2016). Some African countries have their various national healthcare insurance schemes but have not yet established channels for funding palliative care through the public or state healthcare insurances (Hannon, Zimmermann , Knaul, Powell, Mwangi-Powell, & Rodin, 2016). In numerous low-income as well as middle-income states, it is the households that bear the cost of palliative care even in cases where a large number of healthcare services are freely provided (Bates, Namisango, Tomeny, & Muula, 2019).

In summary, the literature gap on the palliative care is that most of countries especially Africa have not established linkages between the national healthcare insurance fund as well as the palliative care. Some countries have their palliative care units established but are not clear on whether they are funded by the national health insurance schemes or through personal establishments. Majority of low/middle income countries do not have a comprehensive hospital healthcare cover for palliative care services.

2.4. National Health Insurance Fund implementation challenges impeding access to healthcare

This objective focuses on the internal processes that are associated with organization and efficacy of the operations of NHIF. The contexts or indicators that hinder the progress of the NHIF discussed are insufficient financial resources and non-involvement of stakeholders.

2.4.1. Insufficient financial resources

Healthcare insurance has been introduced in many countries especially those that are members of the World Health Organization to attain universal access to healthcare (World Health Organization, 2010). For countries that have initiated affordable and accessible healthcare, some are or have experienced financial deficiencies. The Iranian health insurance system charged with the responsibility of reimbursing hospitals the healthcare bills has experienced financial shortage to

meet the expectation of the healthcare insurance members resulting from increased expenditure on healthcare (Davari, Haycox, & Walley, 2012).

The Slovakian government has a functioning healthcare insurance for its citizens to enhance access to healthcare which is financed in a shared mechanism by the employers, the employees and the self-employed. The Slovakian public health insurance has accumulated debts resulting from underfunding from the government and members defaulting health insurance members for personal reasons and hard economic situations (Colombo & Tapay, 2004). The inadequacy of funds have affected the health institutions in Slovakian healthcare insurance as they cannot pay their supplies leading to growing debts and insufficient supplies (Colombo & Tapay, 2004).

The Nigerian national health insurance scheme has experienced financial problems that have hindered healthcare delivery to the members who subscribe to the healthcare insurance (Odeyemi, 2014). The voluntary nature of most of the national hospital insurance schemes in African countries especially for the self-employed has been affecting the longevity of financial sustainability and effectives many subscribers to national hospital insurance schemes revoke their membership as a result of financial challenges (Odeyemi, 2014). However, cases have arose where the finances are fraudulently misappropriated due to weak audit mechanisms and those in charge of claims approval delay the process to reimburse various hospitals (Addae-Korankye, 2013).

The literature gap under this indicator is that when there are no adequate financial mechanisms to cater for the sustainability and operation of national health insurance fund, the program would eventually stall. The day-to-day operations of national health insurance fund is embedded on financial muscles of the citizens who are the majority contributors and adequate structures provided by the government. In many countries especially Africa, mismanagement of funds have caused problems when it comes to reimbursements to the hospitals to pay bills incurred.

2.4.2. Non-involvement of stakeholders when making decisions

Lack of stakeholder inclusion when decisions are made on matters concerning health insurance schemes is recurrent in many countries especially Africa. Failure to engage the beneficiaries is common while everyone should be part of the decision making from the onset as opposed to being bombard with regulations that most of them may not be capable to understand and may seem unrealistic (Odeyemi, 2014).

Just like Nigeria and some other several countries especially Africa, the voice of the citizen contributors to the healthcare insurance and the overall operation is very limited as far as Ghana's National Health Insurance Scheme is concerned, hence information concerning new developments, regulations and operations tends to be minimal or lacking to the majority (Addae-Korankye, 2013). Most governments in Africa enforce policies through an Up-bottom approach from policy initiation to implementation yet expecting the citizens to participate through contributing towards the health insurance schemes (Odeyemi, 2014). Non-involvement of key stakeholders in this case the citizens result to lack of adequate information about the whole national health insurance scheme including the premium benefits and even the rational of subscribing to the national health insurance (Odeyemi, 2014). The mandatory contributors for example government officials and non-government sector employees have no choice to avoid remitting their subscriptions towards national health insurance scheme nevertheless voluntary contributors may opt not to join the national insurance scheme for they do not know much about it or may default (Addae-Korankye, 2013).

The literature gap under the non-involvement of stake holders in decision making is that national health insurance fund policy makers do not consider people's views at the initiation stages of such policies but involve citizens during implementation process which only require them to remit their monthly remittances to national hospital insurance fund.

Though ideally, expectation is access to healthcare should be accessible to all as the literature provides that many countries have their various healthcare insurance mechanisms operating comprehensive healthcare cover for all or partial

healthcare insurance towards realizing Universal Healthcare. However, the works reviewed were general and not context specific to influence of National Hospital Insurance Fund on access to healthcare which is funded by individual members. The key questions remain: How do NHIF policy choices influence access to healthcare? How do various NHIF policy products contribute to access to healthcare? How do NHIF policy implementation challenges impede access to healthcare?

2.5. Theoretical Framework

A theory implies to a set of related ideologies relaying a systematic view of a phenomenon by describing how variables are related with an aim of explaining them (Kerlinger, Lee, & Bhanthumnavin, 2000). The study adopted Rational Choice Theory.

2.6. Rational Choice Theory

Proponent of Rational Choice Theory, Adam Smith argues that individuals make decisions that are informed by the costs they have to incur and the benefits resulting from their actions (Browning, Halcli, & Webster, 1999). Actions that individuals take are purely rational and calculated as they result from an individual's perspective in as much as they can be irrational on other people's perspectives.

People act according to the information they have on a product or the underlying conditions and the goals that are similar to their preferences. Though often it is not a possibility that all the wants of individuals can be achieved, all the same they have to design the means of attaining those goals in which rationally they choose the alternatives that will result to greatest satisfaction (Browning, Halcli, & Webster, 1999). Rational choice theory is concerned with maximum social benefits to the people on the higher side while the costs on the lower side, hence a policy should not be in force as long as its benefits are lower than its costs (Browning, Halcli, & Webster, 1999).

Preference for the benefit package of a health insurance fund is relative as many people prefer a comprehensive health insurance that covers everything or comprehensive including out-patient and inpatient services, followed by out-patient, in-patient and basic benefits respectively in Nigeria. However, the case in Asian continent is different as most people prefer hospitalization services to rank higher than any other benefit (Onwujekwe, et al., 2010).

Rational Choice theory is applicable to this research in that it focuses on maximizing on the benefits of a product or service at a cheaper and affordable cost. Since NHIF is mandatory to the public and private employees but optional to the unemployed and self-employed, the government of Kenya initiated NHIF through its policy makers to serve people at best so as to address access to healthcare and that the citizenry can be relieved from expensive Out of Pocket mode of accessing healthcare. In as much as the decision was made on behalf of Kenyans, the assumption was that it would be of optimum utility to all.

2.7. Definition and Operationalization of Key Concepts

Principle contributor- Individual paying money to the National Hospital Insurance Fund

Formal employees- Individuals who are entitled and have legal right to monthly salaries and pensions and are eligible to pay taxes

Informal employees- Individuals who have no obligation to pay taxes nor are entitled to earn benefits such as pensions and mostly paid on daily basis as wages

Unemployed- Are individuals who have neither wages nor salaries

Dependents- Beneficiaries under eighteen years

Voluntary Contributors- Those who are willingly subscribing to National Hospital Insurance Fund

NHIF policy choices- Categories or plans of health insurance available for members

NHIF policy products- Services resulting from the insurance cover or plans

2.8. Research Hypotheses

2.8.1 Alternative Hypotheses

i. H1: The NHIF policy choices influence access to healthcare
ii. H1: The NHIF policy products contribute to access to healthcare
iii. H1: The NHIF policy experiences implementation challenges that impede access to healthcare

2.8.2. Null Hypotheses

i. H0: The NHIF policy choices have no influence on access to healthcare
ii. H0: The NHIF Policy products do not contribute to access to healthcare
iii. H0: The NHIF policy does not experience implementation challenges that impede access to healthcare

CHAPTER THREE

METHODOLOGY

3.1. INTORDUCTION

This section discusses all the activities the researcher undertook to complete the study. It covers research methodology used, study design, population of study, procedure of sampling, sample size, methods of data collection, measurement of data, analysis and presentation of data, data validity, data reliability and research ethics.

3.2. Research Methodology

The study adopted a mixed methodology approach comprising of qualitative and quantitative methodologies. Mixed methodology approach expanded the viewpoints of findings from different research angles for depth and breadth of understanding the study conclusions (Schoonenboom & Johnson, 2017).

3.3. Study Design

A research design is the plan of circumstances of assembling data up to analysis and presentation with an aim to combine relevance of the purpose of research with economy in procedure (Mugenda & Mugenda, 2003). This study adopted cross-sectional study design where the sampled population of the National Hospital Insurance Fund members who subscribed from the year 2000 to 2019 and the NHIF administrators/officials responsible for daily operations, were involved in the collection of data at the same time. To achieve data collection from the sample of the population, interview and questionnaire tools were used.

3.4. Data Collection Methods and Data Collection Instruments

The researcher collected primary data through a mixed method comprising of qualitative and quantitative data collection methods. Key Informant Interviews technique was conducted in person on a one-on-one in-depth structured interview method to collect qualitative data from the NHIF officials/ administrators and the responses recorded in the notebook by the research assistants. The survey method was used through questionnaire tool of data collection to collect the quantitative data from the members of the public who subscribe to National Hospital Insurance Fund from 2000-2019 and where applicable the Likert Scale was used to quantify the respondent's opinions.

3.5. Target Population of the Study

The research was done in Nairobi County in Kenya with estimated inhabitants of 4,397,043 as per (Kenya National Bureau of Statistics, 2019). This study targeted the principal NHIF contributors in Nairobi County which included formal employees in public and private institutions, self-employed, casual workers, disabled, voluntary contributors and the unemployed. The study also targeted National Hospital Insurance Fund officials.

3.6. Sampling Design and Sample Size

The study employed probability and non-probability sampling design. The study adopted probability sampling method to ensure a process with confidence that the different units in the sampled population had comparable window of inclusion in the evaluation hence simple random sampling technique was employed, also non-probability sampling technique in cases where finding samples with the required characteristics was scarce. The study used the cluster random sampling in which the Nairobi County was divided into sub-counties as clusters of; Embakasi East, Dagoreti South, Kamukunji, Kasarani, Kibra, Westlands and Makadara. Simple random sampling was employed to identify research participants in the clusters and Purposive sampling employed to reach the National Hospital Insurance Fund administrators. The study used Cochran's (1977) formula for determination of

sample size as the number of target population was unknown and could not be approximated (Cochran, 1977).

Cochran formula:

$$n_0 = \frac{z^2 pq}{e^2}$$

Where:

e = is the desired level of precision (the margin of error),

p =is the (estimated) proportion of the population which has the attribute in question,

q =is 1 – p.

Confidence level at 95% - Z-Score=1.96

P=0.5

e= ± 5

$$n_0 = \frac{z^2 pq}{e^2}$$

n_0=$(1.96)^2 \times 0.5(0.5) \div (0.05)^2$

n_0= 384, Therefore, the sample size for the study was 384

Table 3. 1: Sample Size Distribution

Category	**Sample representation**	**Sampling techniques**
NHIF Members/subscribers	364	Simple Random Sampling
NHIF Administrators	20	Purposive
Total	**384**	

Source: (Author, 2022)

3.7. Data Analysis and Presentation

The questionnaires from the respondents were subjected to coding then registered into Statistical Package for Social Sciences. The demographic data was analyzed by use of frequency tables, graphs, and pie-chats for interpretation. Descriptive statistics was used in analysis, measures of association including Pearson Product Moment Correlation and Simple Linear Regression was employed to test association between study variables.

Analysis of data was also employed by use of non-parametric test through Chi-Square for determination of relationship between categorical variables and parametric test by T-test to compare the two means and ANOVA. The analyzed data was presented using descriptive statistics in bar graphs and tables. The data was also measured through the use of measures of central tendency, measures of dispersion, measures of association/relations and inferential statistics. Content analysis was employed to analyze qualitative data. The data collected in word or text was coded to classify and identify them into specific characteristics to tabulate and summarize the study findings.

3.8. Data Validity and Data Reliability

To ensure validity of data, the researcher employed a mixed methodology, face to face interview method while filling the standardized research questionnaire. The data was subjected to peer-debriefing, data triangulation and member checking. The researcher provided clear open-ended questions and structured questions which were related to the research theory and the reviewed literature so as to realize accurate conclusion. The study had enough sample size as the representative of the population comprising of both male and female to realize different opinions about the subject to achieve integrity of the research conclusions.

Reliability was adhered to in this study as transcripts were checked to identify mistakes in definition of codes and cross-check of codes from research assistants. The responses given by the research participants were recorded without alteration to attain the raw data to make conclusion. The research was conducted in a friendly environment where only the research participant was needed to protect their privacy and autonomy.

3.9. Research Ethics

Research ethics are a set of rules that governs a research exercise including behavior of the researcher and research participants (Shamoo & Resnik, 2009). The researcher conformed to ethical codes and conduct in research not limited to respect to human subjects, honesty and integrity, confidentiality, openness, respect for human intellectual property and the legality of the research. The research assistants underwent training in research ethics to be able to obtain informed consent from research participants.

3.10. Chapter Outline

This study has five chapters. Chapter One contains the background of the study, Statement of the research problem with outlined research gap; Research questions; Research objectives; Justification of the study; and Scope of the study. Chapter Two contains Literature Review providing the contextualization of different ways of how this study was carried out highlighting previous and current works on the similar topic, Theoretical Framework highlighting the adopted theory and its justification, Conceptual Framework demonstrating diagrammatically the relationship between the Independent variable and Dependent variable, Definition and Operationalization of Key Concepts as used in the study; and Research Hypotheses expressing probability of relationship between variables.

Chapter Three contains Methodology highlighting how the study was carried out to respond to research questions, research design, proposed study area, target population, sample size, sampling frame, sampling techniques, collection methods, data reliability and validity, research ethics. Chapter Four contains analysis, presentation, and Discussion of data. Chapter Five provides the presentation of Summary, Conclusion and Recommendation.

CHAPTER FOUR
DATA ANALYSIS, PRESENTATION, AND INTERPRETATION

4.0. Introduction

This chapter comprises analysis, presentation and interpretation of findings drawn from the interviews administered to the twenty (20) Key Informants from the National Hospital Insurance Fund and three hundred and sixty-four questionnaires (364) respondents who subscribe to National Hospital Insurance Fund by Statistical Package for the Social Science. The data was analyzed based on the following three specific research objectives; to establish the influence of National Hospital Insurance Fund policy choices by members on access to healthcare, to assess the contribution of various National Hospital Insurance Fund policy products on access to healthcare, to investigate National Hospital Insurance Fund policy implementation challenges impeding universal access to healthcare. The findings were presented in tables, pie charts and bar graphs to visually project the pictorial outcome.

4.1. Response Rate

Table 4.1 below shows the response rate where two sets of data which were collected from National Hospital Insurance Fund's members also referred to as subscribers and the officials in charge of daily operations of National Hospital Insurance Fund.

Table 4. 1: Response Rate

Tool	Target	Completed	Percentage
Questionnaires	364	364	100%
Key Informant Interviews	20	20	100%

Source: (Author, 2022)

The researcher administered 364 questionnaires and 20 key Informant interviews were conducted and completed. Therefore, the study achieved 100% response rate as shown in table 4.1 above.

4.2. Demographics

Questionnaires were administered where 364 questionnaires and 20 one on one Key Informant interviews were completed through the help of research assistants.

4.2.1. Gender

Table 4. 2: Gender of Respondents

Respondents involved in the study as per their gender is illustrated in the table 2 below:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	178	48.9	48.9	48.9
	Female	186	51.1	51.1	100.0
	Total	364	100.0	100.0	

Source (Author 2022)

In table 4.2 above, it shows that among 364 questionnaires administered, 178 males (48.9%) and 186 females (51.1%) were involved in the study. Many females participated in the study compared to males.

4.2.2. Sub-County of Residence

Respondents indicated their sub-counties of residence in table 4.3 below:

Table 4. 3: Sub-County of Residence

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Embakasi west	52	14.3	14.3	14.3
	Dagoreti South	52	14.3	14.3	28.6
	Kamukunji	50	13.7	13.7	42.3
	Kasarani	53	14.6	14.6	56.9
	Kibra	53	14.6	14.6	71.4
	Westlands	52	14.3	14.3	85.7
	Makadara	52	14.3	14.3	100.0
	Total	364	100.0	100.0	

Source (Author 2022)

Table 4.3 above indicates the sub-counties or clusters where respondents were drawn from including: Embakasi West 52, Dagoreti South 52, Kamukunji 50, Kasarani 53, Kibra 53, Westlands 52, and Makadara 52.

4.2.3. Household type of Employment

Respondents were asked to indicate their household type of employment as show in table 4.4 below.

Table 4. 4: Household Type of Employment

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Public Sector	94	25.8	25.8	25.8
	Private Sector	120	33.0	33.0	58.8
	Self-Employment	145	39.8	39.8	98.6
	Unemployed	5	1.4	1.4	100.0
	Total	364	100.0	100.0	

Source (Author, 2022)

Table 4.4 above shows that the majority of respondents were employed totaling to 214 who were mandatory contributors to NHIF where public sector comprised of 94 respondents, private sector 120 respondents, self-employed 145 and unemployed 5 respectively.

4.2.4. Gender of Key Informants

Participants from NHIF indicated their gender in table 4.5 below

Table 4. 5: Gender of Key Informants

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	10	50.0	50.0	50.0
	Female	10	50.0	50.0	100.0
	Total	20	100.0	100.0	

Source: (Author, 2022)

In table 4.5 above, it shows the gender of study participants interviewed where there was an equal participation of male and female at 50% male and 50% female.

4.2.5. Marital Status of respondents

The table 4.6 below shows the marital status of household heads who were the respondents of the study.

Table 4. 6: Marital Status of Household Head

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unmarried	43	11.8	11.8	11.8
	Wedded/Married	316	86.8	86.8	98.6
	Widower/Widow	1	.3	.3	98.9
	Divorce	2	.5	.5	99.5
	Separated	2	.5	.5	100.0
	Total	364	100.0	100.0	

Source: (Author, 2022)

Table 4.6 above shows that the unmarried household heads were 11.8%, wedded/married were 86.8% hence made the majority, widowed 0.3%, divorced 0.5%, and separated 0.5%.

4.2.6. Distribution of the Level of education among the respondents

4.2.4.1. Respondents Level of Education

The respondents who took part in the study were drawn from various education backgrounds ranging from no formal education to college or university level. The table 4.7 below shows a description of the average level of education which many respondents had.

Table 4. 7: Level of Education of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No School	1	.3	.3	.3
	A bit of primary	4	1.1	1.1	1.4
	Primary Certificate	9	2.5	2.5	3.8
	A bit of Secondary	9	2.5	2.5	6.3
	Secondary Certificate	61	16.8	16.8	23.1
	A bit of college	79	21.7	21.7	44.8
	University/College	201	55.2	55.2	100.0
	Total	364	100.0	100.0	

Source: (Author, 2022)

Table 4.7 above indicates that many respondents had at least a college certificate. Respondents with no school was 0.3%, primary but not complete 1.1%, those who finished primary and attained certificates 2.5%, a bit of secondary but did not finish 2.5%, secondary certificate 16.8%, a bit of college 21.7% and those

attained college or university 55.2%. More than 50% of the respondents had a college or university certificates while those with no school certificate at 1%.

4.2.4.2. Level of education of Key Informants

The participants drawn from National Hospital Insurance Fund indicated their level of education which was to gauge their levels of understanding on administration, distribution of responsibilities and delivery of their mandate. Their responses are indicated on the table 4.8 below.

Table 4. 8: Level of Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Undergraduate	11	55.0	55.0	55.0
	Master Complete	4	20.0	20.0	75.0
	Master incomplete	5	25.0	25.0	100.0
	Total	20	100.0	100.0	

Source: (Author, 2022)

In table 4.8 above, the participants' level of education was higher. Among them, 55% had attained undergraduate degree, 20% had a master's degree while 24% had their Master ongoing. The lowest had an undergraduate degree certificate so the participants were well educated.

4.2.7. Participants Job Rank

The participants were asked to indicate their job positions or ranking as shown in table 4.9 below.

Table 4. 9: Rank of NHIF Personnel

Rank of personnel		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Managing director	1	5.0	5.0	5.0
	Assistant director	8	40.0	40.0	45.0
	Manager	9	45.0	45.0	90.0
	Senior supervisor	2	10.0	10.0	100.0
	Total	20	100.0	100.0	

Source: (Author, 2022)

Table 4.9 above illustrates the level of expertise involved in decision making after engaging the participants who actually were at the center of decision making and NHIF operations. Among them 1 (5%) managing director, 8 (40%) Assistant directors, 9 Managers representing 45%, and 2 senior supervisors representing 10%

4.3. National Hospital Insurance Fund policy choices

The first objective of the study was to establish the influence of National Hospital Insurance Fund policy choices by members on access to healthcare in Kenya. For this objective to be addressed, it was hypothesized that the National Hospital Insurance Fund policy choices influence access to healthcare in Kenya. The respondents were asked questions to measure the following indicators: Membership to National Hospital Insurance Fund, Category of Subscription, level of satisfaction and Impact of National Hospital Insurance Fund categories.

4.3.1. Membership to National Hospital Insurance Fund

The respondents were asked to indicate whether they have been members of the National Hospital Insurance Fund to assess their eligibility. Their response was as shown in the table 4.10 below.

Table 4. 10: Membership to NHIF

	N	Minimum	Maximum	Mean	Std. Deviation
Have you been a member remitting monthly fees to NHIF?	364	1	1	1.00	.000
Valid N (listwise)	364				

Source: (Author, 2022)

The table 4.10 above indicates that the 364 respondents were subscribing to NHIF and contributing a particular amount or have defaulted but within the required timeline of the research.

4.3.2. Category of Subscription

The respondents were asked the category of National Hospital Insurance Fund they were subscribing. This was summarized in the table 4.11 below.

Table 4. 11: Category of subscription

Count

		Which category of NHIF are you currently paying for?			
		Supa Cover	Linda Mama	Civil Servants	Total
Gender of Respondents	Male	174	0	4	178
	Female	180	1	5	186
Total		354	1	9	364

Source, (Author, 2022)

Table 4.11above illustrates subscription as per the categories. It shows that among the three categories, Supa cover is widely used with 354 subscribers compared to Linda Mama 1 and Civil Servants 9 of National Hospital Insurance Fund.

4.3.3. Level of Satisfaction

4.3.3.1. Linda Mama Category

The respondents were asked to indicate their level of satisfaction resulting from the various categories from which they subscribe, Supa Cover, Linda Mama and Civil Servants. The table 4.12 below shows the level of satisfaction of NHIF members resulting from Linda Mama.

Table 4. 12: Extent of satisfaction with LINDA MAMA Category

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very satisfied	152	41.8	41.8	41.8
	Satisfied	95	26.1	26.1	67.9
	Unsatisfied	115	31.6	31.6	99.5
	Very Unsatisfied	2	.5	.5	100.0
	Total	364	100.0	100.0	

Source: (Author 2022)

The table 4.12 above illustrates that National Hospital Insurance Fund members had varied satisfaction levels from Linda Mama Category. Out of the 364 respondents, 41.8% were very satisfied, 26.1% were satisfied, 31.6% were unsatisfied and 0.5% was very unsatisfied with Linda Mama category. As per table 4.12 above, cumulatively, Linda Mama category of NHIF satisfied the respondents at 67.9% in that it met their needs of healthcare whenever they want. On the other hand, cumulatively 32.1% of respondents were not satisfied with Linda Mama category for various reasons. So generally, majority were satisfied by Linda Mama category of National Hospital Insurance Fund. This finding corresponds with (Boateng & Awunyor-Vitor, 2013), which found that members of National Health Insurance Scheme in Ghana considered renewing their membership of public health insurance to aide their access to healthcare in case they fell sick. Their contentment resulted from the confidence that their healthcare needs were catered for by the National Health Insurance Scheme.

4.3.3.2. Civil Servants Category

It was required of the respondents to provide their feedback on their level of satisfaction resulting from the National Hospital Insurance Fund's Civil Servant category. The table 4.13 below shows their response.

Table 4. 13: Extent of Satisfaction with Civil Servant category

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very satisfied	118	32.4	32.4	32.4
	Satisfied	145	39.8	39.8	72.3
	Unsatisfied	101	27.7	27.7	100.0
	Total	364	100.0	100.0	

Source: (Author 2022)

In the table 4.13 above, 32.4% were very satisfied with Civil servants' category, 39.8% were satisfied, and 27.7% were unsatisfied with civil servants category. In the aspect of satisfaction, 72.2% were satisfied with Civil Servant category 27.8% were unsatisfied. This category also was satisfying to members as majority 72.2% indicated that indeed it was satisfying while 27.7% were not satisfied. These findings are in accordance with (Sommers, Gawande, & Baicker, 2017) that health insurance increases the chances of a user to benefit from healthcare facilities ranging from diagnosis to full treatment. The significant chance of an individual receiving healthcare when needed increases their conviction to maintain their membership due to their awareness of affording healthcare when they fall sick.

4.3.3.3. Supa Cover Category

The respondents provided their opinion on the extent of their satisfaction with Supa Cover Category of National Hospital Insurance Fund. Table 4.14 below presents their opinions.

Table 4. 14: Extent of satisfaction with Supa Cover Category

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very satisfied	128	35.2	35.2	35.2
	Satisfied	157	43.1	43.1	78.3
	Unsatisfied	78	21.4	21.4	99.7
	Very Unsatisfied	1	.3	.3	100.0
	Total	364	100.0	100.0	

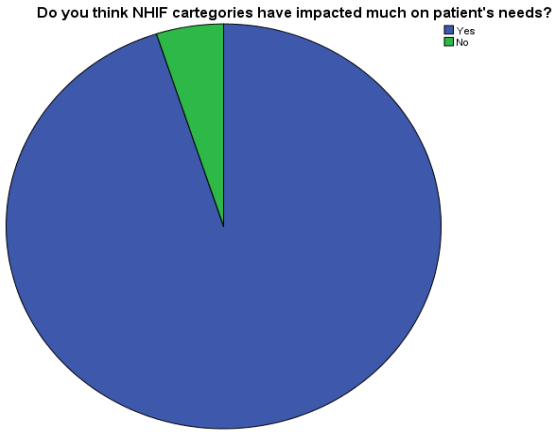
Source: (Author 2022).

In table 4.14 above, 35.2% were very satisfied with Supa Cover, 43.1% were satisfied, 21.4% were unsatisfied and 0.3% was very unsatisfied with Supa Cover category of National Hospital Insurance Fund. In terms of general satisfaction and dissatisfaction, the Supa Cover category was satisfying to 78.3% respondents comprising of the majority while 21.7% the category was not satisfying to them. These findings correlate with (Fan, Yan, Coyte, & Yu, 2019) which found that effectiveness of public health insurance increases utilization of healthcare and the beneficiaries are likely to be attended to by high quality health professionals which increases their chances of recovery and satisfaction. However, (Gobah & Liang, 2011) found that resentment also arise from healthcare insurance users due to low quality of services which maybe deduced from the case of lack of satisfaction by National Hospital Insurance Fund members.

4.3.4. Impact of National Hospital Insurance Fund Categories

The research participants were asked to provide their thoughts whether the categories provided by the National Hospital Insurance Fund had impacted on access to healthcare. The table 4.15 below shows their response.

Table 4. 15: Impacts of NHIF Categories on Healthcare Needs



Source: (Author 2022).

Table 4.15 above shows that the National Hospital Insurance Fund has impacted on access to healthcare according to the 95% of the participants. On the other hand, 5% of the participants did not find that NHIF has impacted on access to healthcare for its members. As the data shows, the National Hospital Insurance Fund impacted positively on the beneficiaries at a higher percentage of 95%, the same kind of implication was found by (Simon, Soni, & Cawley, 2017) that among the low and middle income countries, health insurance increased expansion of access to healthcare where the preventive care and other healthcare needs were accelerated unlike when such insurance was not in place.

Considering the findings attained from the first objective; to establish the influence of National Hospital Insurance Fund policy choices by members on access to healthcare in Kenya. The study upholds the hypothesis that stated, National Hospital Insurance Fund policy choices influence access to healthcare in Kenya.

4.4. Contribution of National Hospital Influence Fund Policy Products

The second objective of this study was to assess the contribution of various National Hospital Insurance Fund policy products on access to healthcare. It was hypothesized that the National Hospital Insurance Fund policy products contribute to access to healthcare. The indicators analyzed were: Inpatient Services and Outpatient services.

4.4.1. Inpatient Services

The respondents were asked to respond to the extent of cover provide by inpatient services. The findings were represented below in table 4.16

Table 4. 16: Extent of Cover by inpatient Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	8	2.2	2.2	2.2
	Agree	7	1.9	1.9	4.1
	Uncertain	54	14.8	14.8	19.0
	Disagree	141	38.7	38.7	57.7
	Strongly Disagree	154	42.3	42.3	100.0
	Total	364	100.0	100.0	

Source: (Author, 2022).

Table 4.16 above captured the responses on whether the inpatient Services provided by National Hospital Insurance Fund are comprehensive or not. They illustrate disproportions in that 2.2% strongly agreed that inpatient services were comprehensive, 1.9% agreed and 14.8% were uncertain whether the services were comprehensive or not. On the other hand, 38.7% disagreed while 42.3% strongly disagreed that inpatient services are comprehensive. Table 4.16 shows that cumulatively, 81% of the responses indicated that inpatient services of NHIF were not comprehensive. According to (Obermann, Jowett, & Kwon, 2018), for instance, the Phil Health of the Philippine is not comprehensive on a few ailments

which is also confirmed the scenario with National Hospital Insurance Fund of the Kenyan government in which many subscribers were of the opinion that health insurance was not comprehensive.

4.4.2. Outpatient Services

Respondents were asked to gauge the extent of outpatient services. The table 4.17 below captures their responses.

Table 4. 17: Extent of Cover for Outpatient Services

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agree	5	1.4	1.4	1.4
	Agree	8	2.2	2.2	3.6
	Uncertain	53	14.6	14.6	18.1
	Disagree	142	39.0	39.0	57.1
	Strongly Disagree	156	42.9	42.9	100.0
	Total	364	100.0	100.0	

Source: (Author, 2022)

The frequency table 4.17 above illustrates the extent that outpatient services provided by National Hospital Insurance Fund cover for the users when they need medical care. Among them, 1.4% strongly agreed that the outpatient services provided for by NHIF were comprehensive and 2.2% Agreed to the same. However, 14.6% were uncertain whether the outpatient services were comprehensive or not, 39% disagreed and 42.9% strongly disagreed that outpatient services were comprehensive. In this case, majority were of the opinion that outpatient services provided by NHIF were not comprehensive which

corresponds to the study by (Obermann, Jowett, & Kwon, 2018) in Philippine on Phil Health also does not provide comprehensive cover for all diseases or medical needs.

4.4.3. Inpatient and Outpatient Healthcare service in Terms of Comprehensive Coverage

The key informants were asked to give their opinions on comprehensiveness of inpatient and outpatient services covered by National Hospital Insurance Fund. It seemed that both inpatient and outpatient healthcare services covered were not fully comprehensive but limited to some amount per patient. Participant A:

'' *It is good that many citizens have subscribed to NHIF after realizing that indeed health insurance enables members to receive medical attention. Partially some members receive comprehensive care including overseas treatment though there is an additional amount or rather special care package which has not been exploited by many subscribers as its cost is also higher compared to the regular payments. Comprehensive care is not yet rolled out for all members paying the regular amount''.*

Participant B elaborated that '' *Subscribers have an opportunity to gain medical services whenever they need them, so at least in as much as majority of members have the regular subscription which is not comprehensive get services. On the comprehensive matter, the willing members pay at least Ksh.3500 to enjoy a comprehensive cover even to an extent of overseas treatment''.* The comprehensive nature of NHIF was clear on cases where pregnancy was involved, when mothers wanted to deliver. Participant C reiterated that'' *The NHIF reimburses money to the various health institutions after members have been attended to. Circumstances where the patients are in need of treatment which does not require longer attention, comprehensive care suffices. For example, pregnant mothers often get to deliver for free in the respective healthcare centers accredited by NHIF''.*

Participant F stated that ‘*’ as at now the cover does not have unlimited services’’*. Participant H clearly stated that ‘’ *We are yet to reach the full comprehensive cover for everyone, though there are members who have almost the comprehensive cover as they pay an added amount’’.* According to participant G, NHIF has many diseases covered but not in an unlimited level, ‘’ *NHIF has made healthcare accessible to members to a level that was not a reality in the past where there was no such insurance. The NHIF has not reached the level of full comprehensive cover but hopefully it will reach that level’’.*

The finding of this study on comprehensives of National Hospital Fund confirms the findings of (Philip, Kannan, & Sarma, 2016), that households with public health insurance often utilized inpatient and outpatient services compared to non-insured households. Moreover, a mere 40% of cover was awarded to the insured which also indicates that 60% of healthcare needs could be accessed through Out-Of-Pocket means leading to more spending on healthcare.

It can be inferred that the outpatient and inpatient services provided a path to access to healthcare even though not at full length. The services provided opportunities for diagnoses, tests, and treatment. Therefore, it can be deduced that National Hospital Insurance Fund policy products contribute to access to healthcare as hypothesized.

4.5. National Health Insurance Fund Implementation Challenges

The third objective of the study was to investigate National Hospital Insurance Fund policy implementation challenges impeding universal access to healthcare. This objective was addressed by a hypothesis that stated that the National Hospital Insurance Fund policy experiences implementation challenges that impede access to healthcare. The following indicators were investigated: Involvement in decision making, Cost and National Hospital Insurance Fund Management.

4.5.1. Involvement in Decision Making

The study sought to assess the general opinion and responses concerning their involvement in decision making as subscribers and as the administrators as shown in table 17 below.

Table 4. 18: Involvement in Decision Making

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	34	9.3	9.3	9.3
	No	330	90.7	90.7	100.0
	Total	364	100.0	100.0	

Source: (Author, 2022)

Table 4.18 above illustrates that the respondents were not convinced or felt that their views were taken into consideration when decisions on measures to improve healthcare service delivery were made. The majority 330 (90.7%) felt that they were not involved in decision making on National Hospital Insurance Fund on adjustments of delivery on healthcare. While 34 (9.3%) felt that they were involved as members of NHIF on decision making.

On the other hand, when the participants were asked about how they ensure that the patient achieves full treatment, Participant F reiterated that *'' At the moment, the NHIF can only recommend further measures which must also be approved in parliament. NHIF cannot go beyond the regulations approved''.* Participant B also observed that '' *When the cover is depleted to the limit, there is no other way we can intervene as a corporation, but it is just that more legislation is required''*. In as much as the respondents felt they were not involved in decision making by the National Hospital Insurance Fund, the same lack of involvement in decision making was experienced by the participants who oversaw NHIF operations as they also shifted some responsibilities to the parliament as the legislating entity do provide regulations on many issues concerning healthcare and NHIF. These findings relate with (Odeyemi, 2014), which found that beneficiaries are not

always involved when decisions on how health insurance would affect them, cases of misunderstanding and delays may arise hence missing critical details which could have yielded benefits to the masses.

4.5.2. Cost

The study sought to determine affordability of National Hospital Insurance Fund on access to healthcare. Table 4.19 below captured their views when a questioned was posed *the cost of subscription to NHIF is affordable*.

Table 4. 19: Affordability of NHIF per Sub-County

Respondents from the various sub-counties of Nairobi County were asked to provide their response on affordability of NHIF.

Sub-County * The cost of subscription to NHIF is affordable

Count

		The cost of subscription to NHIF is affordable					
		Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	Total
Sub-County	Embakasi west	7	14	5	10	16	52
	Dagoreti South	4	8	5	13	22	52
	Kamukunji	3	2	0	15	30	50
	Kasarani	3	14	0	18	18	53
	Kibra	5	3	8	21	16	53
	Westlands	3	10	1	16	22	52
	Makadara	2	17	0	22	11	52
Total		27	68	19	115	135	364

Source: (Author, 2022)

Table 4.19 above shows that 135 (37.1%) most respondents strongly disagreed that the cost of NHIF was affordable, 115 (31.6%) disagreed that NHIF was

affordable, 19 (5.2%) were uncertain whether the cost of NHIF was affordable, 68 (18.7%) agreed that cost of NHIF was affordable, and 27 (7.4%) strongly agreed that cost of NHIF was affordable. The cumulative proportion of respondents who held that NHIF was not affordable were the majority at 68.7% compared to 26.1% who felt the cost was affordable and 5.2% were uncertain. As per the Sub-Counties, Embakasi West had the highest number of responses that NHIF was affordable with a cumulative number of 21 (22.1%), Makadara 19 (20%), Kasarani 17 (17.9%), Westlands 13 (13.7%), Dagoreti South 12 (12.6%), Kibra 8(8.4%) and Kamukunji 5 (5.3%). On the other hand, Kamukunji had the highest resenting number with 45(18%), Westlands 38 (15.2%), Kibra 37 (14.8%), Kasarani 36(14.4%), Dagoreti South 35(14%), Makadara 33(13.2%) and Embakasi West 26(10.4%). On uncertainty of affordability, Kibra had majority 8 (42.1%), Embakasi West 5(26.3%), Dagoreti South 5(26.3%) and Westlands 1(5.3%). The general finding on affordability was that in the sub-counties of Nairobi County, the cost of NHIF was not affordable in all with a percentage of 68.9% against 26.1% stating the cost of NHIF was affordable. This finding agrees with postulation of (Boateng & Awunyor-Vitor, 2013) that there is a perception among the insured individuals

Table 4. 20: Type of Employment and Cost of NHIF

Table 4.20 below shows responses towards affordability of NHIF as per type of employment.

Household type of Employment * The cost of subscription to NHIF is affordable

Count

		The cost of subscription to NHIF is affordable					
		Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree	Total
Household type of Employment	Public Sector	8	16	7	30	33	94
	Private Sector	9	27	5	35	44	120
	Self-Employment	10	25	7	49	54	145
	Unemployed	0	0	0	1	4	5
Total		27	68	19	115	135	364

Source, (Author, 2022)

Table 4.20 above illustrates that 8 (8.5%) of respondents from public sector strongly agreed and 16(17%) agreed that NHIF was affordable, 7(7.4%) were uncertain on affordability, 30(31.9) disagreed and 33(35.1) strongly disagreed. On the private sector, 9(7.5%) strongly agreed that NHIF was affordable, 27(22.5%) agreed that NHIF was affordable, 5(4.2%) uncertain of whether NHIF was affordable, 35(29.2%) disagreed while 44(36.7) strongly disagreed. On the self-employed 10 (6.9%) strongly agreed, 25 (17.2%) agreed that NHIF was affordable, 7(4.8%) were uncertain, 49(33.8%) disagreed that NHIF was affordable and 54(37.2) strongly disagreed that NHIF was affordable. The unemployed 1(20%) disagreed that NHIF was affordable and 4(80%) strongly disagreed that NHIF was affordable.

The key informants also had their opinions on affordability of NHIF. Participant I was of the opinion that *'' If I were to compare the current situation especially those who are members of NHIF, seamlessly get medical services at ease compared to those who are not yet members who may be limited to get healthcare because at times there are situations where lack of money occurs especially for the poor. Even the rich might run out of money if their ailments require more specialized or more expensive to treat.''* Further Participant E also were of the opinion that NHIF was affordable depending on the type of the contributor, '' *Generally the cost of NHIF is affordable, though in terms of the voluntary members such as those who are not employed or working in the informal sector might not find it easy to maintain the consistency of paying the monthly fees.''*

Participant D also viewed affordability relatively by looking at the type of NHIF membership either voluntary or mandatory, '' *The cost of the plans can be viewed relatively; for the employed members, it is easier for them to part ways with the regulated amounts as membership is mandatory to them, on the other hand for the voluntary members, it is upon them to maintain their membership as some of them default because they do not remit their monthly payments. So to the employed it can be said it is affordable as they are assured of their pay but to the unemployed or self-employed it can be challenging.''* The cost of medical care was also highlighted by the key informants in that the subscription fee was not the only factor but also healthcare had become very expensive. According to participant G, '' *As the national insurance body, we have in the past dealt with long-term illnesses by providing medical services in the nursing, physio, surgeries among others to a given amount. That is providing for instance Ksh 400000 annually for a given patient. However, there are cases that someone develops a terminal illness that requires close to a million shillings annually. For these reasons, we are trying to come up with measures and plans on how to give long-term coverage that can be felt by patients in the event their medication is a bit more expensive and recurrent. We have through the ministry of Health and our database noted a list of major long-term illnesses.*''

It was outright from the majority of respondents that the cost of NHIF was not affordable even though they kept their subscription. Their views agreed with findings of (Boateng & Awunyor-Vitor, 2013) that there exists a perception that health insurances are not affordable to many which has hindered membership to such insurances. Also, these findings agree with (Mishra, Khanal, Karki, Kallestrup, & Enemark, 2015) who found that cost of health insurance was not affordable to the poor hindering their access to healthcare.

4.5.3. National Hospital Insurance Fund Management

The respondents were asked to provide their view on the general management of National Hospital Insurance Fund. A question was posed; *do you think that the officials in charge of NHIF are properly managing the corporation to enhance delivery of healthcare?* The table 4.20 below presents their responses.

Table 4. 21: Opinion on Management of National Hospital Insurance Fund

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	15	4.1	4.1	4.1
	No	349	95.9	95.9	100.0
	Total	364	100.0	100.0	

Source: (Author 2022)

Table 4.21 above shows that 15 (4.1%) thought that NHIF officials were properly managing the corporation to enhance delivery of healthcare in Kenya. However, the majority 349 (95.9%) thought that NHIF officials were not properly managing the corporation to enhance healthcare delivery. The responses provided indicated a negative feeling towards NHIF officers, though not provided on specific grounds. The findings of this study also confirm (Odeyemi, 2014), that problems ranging from financial catastrophes have been a menace for the Nigerian Health Insurance Scheme and in many African countries where abrupt lack of income or

employment renders individuals without healthcare coverage which affects the general utilization and purchase of medical inputs. Further, the study confirms (Addae-Korankye, 2013) that even though financial inadequacy affects healthcare delivery, misappropriation and corruption have severely incapacitated healthcare institutions as refunds on the healthcare bills provided are delayed or never reimbursed.

The confirmation by the respondents and key informants that myriad shortcomings are undermining the mandate of NHIF to achieve access to healthcare were glaring. When the healthcare cover gets depleted before full recovery due to partial coverage, the sick individual must seek other means likely from their own savings or through fundraisers. Most respondents had a negative view of management of NHIF. While on the other hand, the key informants were responsible for daily operation of the NHIF institution but were powerless to make some decisions as an independent institution as the parliament also had a role to play. Such dependence delays dispensation of implementation of decisions hence affecting service delivery. Therefore, the study considers the hypothesis which stated that National Hospital Insurance Fund policy experiences implementation challenges that impede access to healthcare.

4.6. Multiple Regression Analysis

According to (Hair, Black, Babin, & Anderson, 2010), multiple regression analysis refers to a statistical procedure applied for analysis to determine relationship between independent variables and a dependent variable. Multiple regression analysis was used other than simple linear regression as it allowed the researcher to rate the effects of the independent variable (National Hospital Insurance Fund) on dependent variable (access to healthcare) hence to establish relationships between National Hospital Insurance Fund's policy choices, National Hospital Insurance Fund's policy products and challenges impeding implementation of National Hospital Insurance on access to healthcare.

Table 4. 22: Summary of Multiple Regression Analysis

Model Summary[c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.687[a]	.472	.470	438.759	
2	.735[b]	.541	.538	409.620	1.752

a. Predictors: (Constant), category of NHIF

b. Predictors: (Constant), category of NHIF, Outpatient Services

c. Dependent Variable: Access to healthcare

Source (Author 2022)

Table 4.22 above shows that the relationship between National Hospital Insurance Fund policy choices, National Hospital Insurance Fund products was strong at R 0.687 (68.7%) which implies that 0.472 (47.2%) is the variations in access to healthcare. It shows that 62.8% of variations result from other factors excluded in model 1. On the same vein in model 2, the NHIF categories and outpatient services depict a strong relationship at R 0.735 (73.5%) with access to healthcare which is determined by the money remitted. The variations are determined at 0.541 (54.1%) resulting from other factors excluded in the model.

4.7. Analysis of Variance

Table 4. 23: Analysis of Variance

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	62218999.185	1	62218999.185	323.200	.000[b]
	Residual	69688439.002	362	192509.500		
	Total	131907438.187	363			
2	Regression	71335905.833	2	35667952.916	212.577	.000[c]
	Residual	60571532.354	361	167788.178		
	Total	131907438.187	363			

a. Dependent Variable: Access to healthcare

b. Predictors: (Constant), category of NHIF

c. Predictors: (Constant), category of NHIF, Outpatient Services

Source (Author 2022)

It was established that at 95% confidence level, the F value of 323.200 is significant at 0.000 levels or P= <0.005 on model 1. Model 2 illustrates at that at F value of 212.577 the significance is 0.000 or P= <0.005. The study can therefore deduce that the model employed was ideal to make conclusion that the variables adopted: National Hospital Insurance Fund policy choices, National Insurance Fund Policy products and challenges impeding implementation of NHIF significantly influence access to healthcare.

4.8: Collinearity of Variables

Linear regression was employed to show the relationship between the variables

Table 4. 24: Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-508.526	80.298		-6.333	.000
	Which category of NHIF are you currently paying for?	1314.500	73.118	.687	17.978	.000
2	(Constant)	304.374	133.347		2.283	.023
	Which category of NHIF are you currently paying for?	1274.915	68.473	.666	18.619	.000
	Outpatient Services provided by NHIF are comprehensive	-183.727	24.925	-.264	-7.371	.000

a. Dependent Variable: Access to healthcare

The table 4.24 above shows that there is a significant relationship between the tested variables as they fall within the acceptable significance range or level of P=≤ 0.05 with NHIF categories at Beta 0.687 (68.7%) at significance of 0.000 in model 1. At Beta of 0.666 in model 2, it indicates that when NHIF categories are held constant it influences access to healthcare 66.6% at significance level of

0.000, while the outpatient influence reduces with Beta -0.254 (25.4%) at significance level of 0.000 all other factors held constant. It can be inferred that National Hospital Insurance Fund policy choices, National Hospital Insurance Fund policy products influence access to healthcare and National Hospital Insurance Fund challenges have influence on access to healthcare in Kenya at different magnitudes.

CHAPTER FIVE
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1. Introduction

This is the final chapter of the study. It outlines the summary of the findings, conclusions drawn from the findings and recommendations underpinning access to healthcare.

5.2. Summary of Findings

The study investigated Influence of National Hospital Insurance Fund on access to healthcare in Nairobi County with specific objectives: To establish the influence of NHIF policy choices by members on access to healthcare, to assess the contribution of various NHIF policy products on access to healthcare and to investigate NHIF policy implementation challenges impeding universal access to healthcare. The key findings of the study have been presented as per the study objectives as follows:

5.2.1. National Hospital Insurance Fund Policy Choices

The first specific objective was to establish influence of National Hospital Insurance Fund's policy choices by members on access to healthcare. It was hypothesized that National Hospital Insurance Fund policy choices influence access to healthcare. It was found that the policy choices which include the National Hospital Insurance Fund categories namely Supa Cover, Linda Mama and Civil Servants were significant and influenced access to healthcare. The categories available in National Hospital Insurance Fund have allowed subscribers to access healthcare with ease nevertheless not in full length of cover. It was found that the categories even though with distinct nature were satisfying to members. In terms of membership distribution among the categories, Supa Cover had most members compared to Linda Mama and Civil Servant categories.

5.2.2. Contribution of Various National Hospital Insurance Fund Policy Products

The second study objective was to assess the contribution of various National Hospital Insurance Fund policy products on access to healthcare. It was hypothesized that National Hospital Insurance policy products contribute to access to healthcare. The study found that National Hospital Insurance Fund's policy products focusing on outpatient and inpatient services contributed to access to healthcare even though were found to be partly comprehensive depending on the disease or healthcare need, such as X-ray tests where some procedures were free, giving birth was free for mothers under Linda Mama category. Chronic diseases such as cancer and other long-term ailments were covered by NHIF though the extent of coverage was capped at a particular amount. The extent of coverage also depended on eligibility of a subscriber on a category where one was entitled to overseas treatment and the amount available for them or shared with NHIF.

5.2.3. National Hospital Insurance Fund policy implementation challenges

The third specific objective of the study was to investigate National Hospital Insurance Fund policy implementation challenges impeding universal access to healthcare. The hypothesis on this objective was that National Hospital Insurance Fund experience implementation challenges. The finding was that there were challenges that impeded implementation of National Hospital Insurance Fund. Among the major findings was that some respondents defaulted their monthly payments hence decreased their eligibility though their membership stood. It was also found that in as much as NHIF took charge of operations regulated by an Act, some jurisdictions were only a reserve of the parliament. A few respondents were uncertain of whether some medical services were available through the NHIF cards, indicating their lack of knowledge about provisions of the category they paid for and that they felt they were not involved in decision making but were of the opinion that they could offer some solutions when given a chance to provide their opinions.

5.3. Conclusion

From the findings of the study, it can be concluded that National Hospital Insurance Fund have significant influence on access to healthcare in Kenya, with NHIF policy choices having an influence of (0.687), NHIF policy products (0.666) and there were notable challenges impeding implementation of National Hospital Insurance Fund.

5.4. Recommendations of the Study

The study makes the following recommendations:

5.4.1. Policy Recommendations

The study recommends that National Hospital Insurance Fund to strengthen inpatient and outpatient services, so the coverage is extended to comprehensive level for all ailments. When diseases strike for long and the medical cover gets depleted, the patient might end up selling their belongings to pay the medical bills which accrue beyond the limit to curb unnecessary panic and loss of property.

The study also recommends that National Hospital Insurance Fund to communicate appropriately what each of the policy categories and policy services cover and the extent of coverage so that members and even those yet to join especially the self-employed and unemployed can be informed about the services to increase coverage among Kenyans. Avenues for incomes must be created by the government to encourage innovative mechanisms to increase membership to National Hospital Insurance Fund to minimize defaulting and increase the number of people accessing healthcare through their NHIF cards.

The study recommends further examination of National Hospital Insurance Fund policy through a public process on mechanisms to ensure that every Kenyan becomes a subscriber by focusing on reviewing the terms and conditions. Currently, majority are the employed covered by NHIF because they their contribution can be deducted from their salaries or willingly pay from their self-employment profits leaving out those who have no income.

5.4.2. Recommendation for Further Studies

First, there is a need of assessment on the level of independence of institutions in Kenya, their role in decision making and their effectiveness on public service.

Secondly, a study needs to be conducted on factors determining applicability of public health insurance in Kenya.

Thirdly, there is need of further examination on National Hospital Insurance Fund policy through public process on mechanisms to ensure zero defaults and that every Kenyan becomes a subscriber by focusing on reviewing of terms and conditions.

Finally, studies on National Hospital Insurance Fund should be carried out on role of other factors such as the culture and religion on National Health Insurance on access to healthcare in Kenya.

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APPENDICES

APPENDIX A: QUESTIONNAIRE FOR NHIF MEMBERS

Introduction

Informed Consent

My name is **Shem Diang'a**, a University of Nairobi postgraduate student undertaking Master of Research and Public Policy. I am conducting my academic research on Access to healthcare in Nairobi County for analysis and reporting to complete my education. The questions are about National Hospital Insurance Fund which will take fifteen minutes of your time. The information you will provide will be confidential and only accessible to me and the University of Nairobi. Your identity will be kept anonymous. Your participation is optional, and you have the freedom not to answer any question if you want. My hope is that you will enjoy participating in this activity as your opinions are important to this research. You may ask for any clarification.

May I proceed?

Yes (1)

No (2)

Definitions

●A household is a people who live on the same compound and often eat together out of a similar pot.

● Household Head (HH) is the decision maker and manages the family resources.

Section A: Bio Data

A1. Date of interview	A2. Gender of respondent Male (1) Female (2)	A3. County	A4. Sub-County

People living in the household	**Male(s)**	**Female(s)**
Children under 5 years		
Children over 5-7 years		
Adults 18-35 years		
Adults above 36 years		

Level of Education of HH	**HH Type of employment**	**HH Head marital status**
(1)No school (2) A bit of Primary (3) Primary certificate (4) A bit of Secondary (5) Secondary certificate (6) A bit of College (7) University/college	(1)Public sector(Govt) (2)Private sector (NGO's) (3)Self-employed (own business) (4) Unemployed	(1)Unmarried (2) Wedded (3) Widower/Widow (4) Divorcee (5) Separate from partner

<u>SECTION B:</u> National Hospital Insurance Fund Policy Choices have no influence on access to healthcare

1. Have you been a subscriber/member (remitting monthly fees to NHIF) of National Hospital Insurance Fund?
   Yes (1)
   No (2)
2. How much money are you currently remitting to NHIF every month?

3. Which category of NHIF are you currently paying for? (tick where applicable)
   a) Supa cover (1)
   b) Linda Mama (2)
   c) Civil Servants (3)

4. I would like to read a statement and you are required to 1; Strongly Agree, 2; Agree, 3; uncertain, 4; Disagree, 5; Strongly Disagree.

Number	**Statement**	1	2	3	4	5
A	Inpatient services provided by NHIF are comprehensive					
B	Outpatient services provided by NHIF are comprehensive					
C	NHIF covers family planning services					
D	NHIF fully covers radiology services such as MRI, X-rays, CT Scan					
E	NHIF card gives me an opportunity to get high quality healthcare services					
F	NHIF ensures that I receive high quality of care than before I subscribed					
G	The cost of NHIF service subscription is affordable					

SECTION C: National Hospital Insurance Fund policy products do not contribute to access to healthcare

5. In you view, how would rate the extent of how the following services are covered by NHIF? Where 1; fully covered, 2; Somehow covered, 3; uncertain, 4; Not covered.

Number	Statement	1	2	3	4
A	NHIF covers reproductive tract cancers				
B	NHIF covers Sexually Transmitted Diseases				
C	NHIF covers infertility services				
D	NHIF covers caesarian services				
E	NHIF covers contraceptive services				
F	NHIF covers cancer treatment				
G	NHIF covers dementia treatment				
H	NHIF covers cardiovascular treatment				

6. To what extent are you satisfied with the following NHIF products? Where 1: very satisfied, 2; satisfied, 3; Unsatisfied, 4; very unsatisfied

No	**Product/service**	1	2	3	4
A	Linda Mama Services				
B	Civil servant services				
C	SUPA Cover Services				

SECTION D: National Hospital Insurance Fund policy does not experience implementation challenges that impede access to healthcare

7. Do you think that the money you remit to NHIF is enough to cover for all healthcare services? (1) yes (2) No
8. Do you think the officials in charge of NHIF are properly managing the corporation in order to enhance delivery of healthcare? (1) Yes (2) No
9. Do you feel involved in decision making about improvements or adjustments in the NHIF for delivery of healthcare services? (1) Yes (2) No
10. If No above in (9), do you think your involvement can help in the execution of NHIF services? (1) Yes (2) No

The End

Thanks for Taking Part

APPENDIX B: KEY INFORMANT INTERVIEW GUIDE FOR POLICY MAKERS

INTERVIEW FOR POLICY MAKERS (NHIF DEPARTMENTAL HEADS)

Introduction

Informed Consent

My name is **Shem Diang'a**, a University of Nairobi postgraduate student undertaking Master of Research and Public Policy. I am conducting my academic research on Access to healthcare in Nairobi County for analysis and reporting to complete my education. The questions are about National Hospital Insurance Fund which will take fifteen minutes of your time. Your identity will be kept anonymous. Your participation is optional, and you have the freedom not to answer any question if you want. My hope is that you will enjoy participating in this activity as your opinions are important to this research. You may ask for any clarification.

May I proceed?

Yes (1)

No (2)

Section A: Bio Data

Date of Interview	**Gender of the Participant**	**Level of Education**	**Department**	**Rank**
	Male (1) Female (2)	(1)Undergraduate (2)Masters incomplete (3)Masters complete (4)PHD	(1)Human Resource (2)Information and Communication Technology (3)Procurement (4) Planning (5)Others	(1)Managing Director (2)Assistant Director (3)Manager (4)Senior Supervisor

<u>Section B:</u> National Hospital Insurance Fund Policy Choices have no influence on access to healthcare

1. Do you think that NHIF's categories (covers/plans) have impacted much on patient's needs? (1) Yes (2) NO
2. What is your opinion on in-patient and outpatient healthcare categories in terms of comprehensive coverage?
3. What is your take on the cost of the NHIF healthcare plans (Linda mama, Civil servants, and SUPA cover) in regard to accessibility to healthcare?

Section C: National Hospital Insurance Fund Policy Products do not contribute to access to healthcare

4. To what extent does NHIF cover long-term illnesses such as cancer?
5. How are you addressing circumstances where long-term illness is involved?
6. If not fully covered in 5 above, how are you ensuring that the patient achieves full treatment?
7. What is your opinion on quality of healthcare as a result of use of NHIF card?

Section C: National Healthcare Insurance Fund policy does not experience implementation challenges that impede access to healthcare

8. What is your opinion on the current funding (funding from members) of NHIF to allow its members access healthcare?
9. How have you ensured that NHIF funds are properly appropriated?
10. Do you think involving NHIF members in decision making such as on NHIF cost and extent of coverage will minimize defaults?

The End

Thank You for Your Participation