IMPACTS OF NATIONAL HEALTH INSURANCE FUND REVENUE ON QUALITY HEALTH SERVICE AT DODOMA CITY IN TANZANIA

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A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN MONITORING AND EVALUATION (MAME)

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CERTIFICATION

The undersigned certifies that she has read and hereby recommends for acceptance by the Open University of Tanzania a dissertation titled; **"Impacts of National health insurance fund revenue on quality health service delivery at Dodoma City in Tanzania"** in partial fulfillment for the requirements of degree of Masters of Arts in Monitoring and Evaluation (MAME).

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(Supervisor)

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Date

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DECLARATION

I, **Mwanaisha Hassan Mustapher,** declare that, the work presented in this dissertation is my own, that it has never been presented for assessment to any other University or Institution. All direct or indirect sources used are acknowledged as references. The dissertation is hereby presented in partial fulfilment of the requirement for the Degree of Masters of Arts in Monitoring and Evaluation (MAM&E).

…………………………………..

Signature

………………………………

Date

DEDICATION

This dissertation is dedicated to my beloved parents Mr. Hassan Mustapher Mngwale and the late Miss. Asumin Hamis Mfyule who truly believed on education as liberation and foundation in embracing knowledge and admired to see me reaching high levels in education development for their highly contributions in my life.

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ABSTRACT

The study aimed at assessing the impact of National Health Insurance Fund Revenue on Quality Health Service in Dodoma, Tanzania using Dodoma Regional Referral Hospital as commonly known as General Hospital as the case study. The study includes the cross-sectional research design in which quantitative and qualitative approach employed. Targeted population for the study was 1038 beneficiaries of the NHIF scheme services and services providers including the NHIF and Dodoma Regional Referral Hospital staff from randomly selected from six departments and its sub-units at the facility level. The sample size of 97 patients and survives providers' respondents were determined. The descriptive statistics were calculated, including frequency, percentages, mean, and standard deviation. The survey findings revealed that the gender composition of the sampled households' is headed mainly by the males. Main challenges that most of the families in the study operation areas were Lack of awareness and understanding of NHIF policies and procedures, Shortage of skilled healthcare professionals, inadequate monitoring and evaluation of NHIF funded programs, delayed access to the health care services, higher out-of-pocket expense for the patient, decrease patient satisfaction and experience, lower healthcare outcomes and health status and another and compromised adherence to clinical guidelines. The study concluded that a Health facilities' access to the health care services has caused a delay in that access. The study recommended the implementation of healthcare management systems suitable to ensure internal control systems.

Keywords: *NHIF, Revenue Collection, Quality Service Delivery.*

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LIST OF ABBREVIATIONS AND ACRONYMS

EHR	Electronic Health Record
GDP	Gross Domestic Product
GHS	Ghana Health Service
HCPs	Healthcare Providers
HMO	Health Maintenance Organization
HSA	Health Savings Account
ICD	International Classification of Diseases
ID	Identification
LMICs	Low- and Middle-Income Countries
MOH	Ministry of Health
NCDs	Non-Communicable Diseases
NHIF	National Health Insurance Fund
NHIS	National Health Insurance Scheme
NGO	Non-Governmental Organization
PHC	Primary Health Care
SDGs	Sustainable Development Goals
UHC	Universal Health Coverage
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Chapter Overview

This chapter introduces the concept of impact of national health insurance fund revenue collection on quality healthy service in Tanzania and its impact on the overall revenue collection on quality healthy service. It outlines the aspects and determinants of health insurance fund revenue collection on quality healthy service; it gave an overview of the objectives and also explains the purpose of the study. The Chapter further provided highlights of the general study framework and its rationale by clearly explaining background of the studied problem and its severity, coverage and estimated impact to the targeted population and its significance of being studied as well as showing the purpose of conducting this study in the selected population and study area.

1.2 Background to the Study

Health insurance plays a vital role in achieving UHC, which is a global goal endorsed by the World Health Organization (WHO). UHC aims to ensure that all individuals and communities have access to needed health services without suffering financial hardship. Health insurance schemes are an essential component of UHC, providing financial risk protection and improving access to quality healthcare. One of the countries in the European region which has taken steps in implementing national health insurance is France.

The origin of health insurance dates back to the 1970's when reduced rate of economic growth as well as increased unemployment led to the formulation of

"Assurance-maladie". This is a statutory health insurance which is part of the social security system. The government through this insurance has been trying to control healthcare expenditure. However, the scheme was reported to have poor performance in terms of coverage something which forced the poorest segment of the population is left to apply for Medical Aid that entitles them to free healthcare. Poor performance of the scheme also led to lack of access to health care among poor people who had no ability to contribute to the scheme (Jacob, 2000).

National health insurances have also been implemented in most of African countries with the purpose of improving health services delivery to the people. However, the impacts of these insurance schemes have been questionable. This is due to poor performance of health insurances in these countries. The schemes have recorded poor performances in terms of enrollment, financial management as well as sustainability. Furthermore, it is revealed that African health insurances have been performing poorly in terms of range of services provided and reimbursement rate (Spaan et al, 20112).

In 1798, the US government established a marine service hospital and required owners of merchant ships to contribute 20 cents a month into a sickness fund for each seaman in their employ (Anon 2014). In fact, the basic principle of individuals pooling their resources in order to spread their economic risks can be traced far back as the so-called funeral societies of ancient Greece. In case of Tanzania, the National Health Insurance Fund was established by an Act of parliament No. 8 of 1999 and begun its operations in July 2001 by members and their respective health facilities. The scheme was established with the objectives of providing loans to its members,

providing medical equipment to accredited health facilities and also facilitating development of health services (Bultman, 2012). The scheme is compulsory to all public sector employees whose membership in the scheme include principle members, their spouses and up to four children (Marwa, 2016).

NHIF was established with the thoughts of improving health services through effective operations of the scheme and sustainability of the scheme. These would be achieved through increasing enrollment into the scheme, proper management of the scheme, equity and sustainability and comprehensive coverage (Mtei & Milligan, 2007). Also, as part of making impacts on health services, NHIF stakeholders had to work hand in hand in looking for solutions concerning accessibility of health services. Accessibility was in terms of quality of services such as waiting time, and availability of medicine to its members (Kumburu, 2015).

NHIF is the primary provider of health insurance in Tanzania with a mandate to enable all Tanzanians to access quality and affordable health services. A resident of Tanzania who has attained 18 years is eligible to be a member and contributions are calculated on a graduated scale based on the income. The fund is governed by a Board of Directors with representatives from civil society, employers and local government. Tanzania health care is financed through highly fragmented financing system: health insurance schemes and tax funding. For instance, Tanzania has a compulsory scheme, NHIF which covers all public servants and up to 5 dependents.

Questions however are raised on the impacts of NHIF. The impacts are measured in terms of sustainability, coverage, accessibility, and equity. Despite the recent efforts

to rebrand NHIF through the renewal of packages and going further to cater for private workers as well as entrepreneurs, NHIF still has a questionable performance with coverage being only 6.6% (National Bureau of Statistics, 2012). Other researchers such as Mulupi (2013) have shown that the community is failing to access health services due to lack of awareness about NHIF as well as complaints about poor health services. With these questions lingering, the study shall conduct an in-depth analysis into the impact of NHIF. The study assessed the impact of national health insurance fund revenue collection on quality healthy service in Tanzania focusing specifically in Dodoma regional referral hospital.

1.3 Statement of the Problem

The government of Tanzania has been keen in ensuring that NHIF improves its operations for the betterment of Tanzanians. The government initiated the National Health Insurance Act of 1999 with several provisions on how NHIF should operate. The main functions of NHIF are: providing medical equipment to accredited health facilities and also facilitating development of health services. Through these functions, it is expected that NHIF members are to be provided with quality care in terms of accessibility, availability of medicines and medical equipment, timely services as well as universal coverage. These elements in the context of health insurance schemes are used to measure performance of the schemes.

Although the National Health Insurance Fund (NHIF) in Tanzania aims to improve healthcare quality by providing financial risk protection, there is limited understanding of the actual impact of NHIF revenue collection on the quality of health services in Dodoma Regional Referral Hospital. The effectiveness of NHIF in

enhancing service quality, including factors such as accessibility, availability of medical staff and equipment, patient satisfaction, and adherence to clinical guidelines, remains unclear. Identifying the potential challenges and opportunities in utilizing NHIF revenue to optimize service quality is crucial for informed decision-making and the overall improvement of healthcare outcomes in Dodoma Region. Therefore, there is a pressing need to investigate the direct linkages between NHIF revenue collection and quality health service delivery in Dodoma Regional Referral Hospital, in order to identify areas for improvement and strengthen the impact of health insurance on patient care.

Despite the fact that the number of accredited facilities has increased, studies have not focused on the dimensions such as quality care in terms of accessibility, availability of medicines and medical equipment, timely services as well as universal coverage in order to measure the impact of NHIF. These studies include those carried out by Luhanga, (2015), Ibrahim, (2013) and Kumburu (2015) respectively.

1.4 General Objectives

The general objective of this research was to assess the impact of National Health Insurance Fund Revenue on Quality Health Service in Tanzania.

1.4.1 Specific Objectives

Specifically, in National Health Insurance Fund Revenue on Quality Health Service in Dodoma General Hospital; the study intended to;

i. Assess the measures for effective NHIF revenue collection for improvement of quality health services in Dodoma Regional Referral hospital.

ii. Establish the relationship between NHIF revenue collection and quality health of services in Dodoma Regional Referral hospital.

iii. Determine barriers for optimizing the impact of NHIF revenue collection on the quality of health services in Dodoma Regional Referral Hospital

1.5 Research Questions

i. What measures can be taken for effective NHIF revenue collection for improvement of quality health services in Dodoma Regional Referral hospital?

ii. How is the relationship between NHIF revenue collection and quality health of services in Dodoma Regional Referral hospital?

iii. What are the barriers associated with NHIF to enhance the utilization of NHIF revenue and improve the quality of health services in Dodoma Region?

1.6 Significant of the Study

It is expected that this study will benefit several categories of stakeholders including;

i. The study has informed the society concerning the general situation of National Health Insurance Fund by motivating and encouraging communities on better way of increasing the chances of collecting more revenue through the scheme

ii. This research helps to improve those upcoming scholars who would wish to pursue researches in the same line as a literature review. The study also serves as guide for future reference for other researchers and readers who may venture to research on the similar and or related topic

iii. This study has managed to influences policy makers on developing sound and relevant policy also it expected that these findings will ensure strategies available to enhance knowledge on importance of NHIF scheme and role of the scheme on the quality hearth service delivery

iv. This study has helped the researcher to meet the requirement for the award of master's degree in Monitoring and Evaluation from the Open University of Tanzania (OUT)

v. The study also provide useful insights to stakeholders, general public and the government on issues related to the provision of quality hearth services. In developing health scheme plan for the wider communities in Tanzania

1.7 Scope of the Study

The study was limited on assessing the impact of National Health Insurance Fund Revenue on Quality Health Service in Dodoma City, Tanzania. Whereby target respondents were from the Dodoma Regional Referral Hospitals. The respondents were sampled from different departments within the health facility mainly who are accessing the NHIF scheme. The study represents findings from those communities on National Health Insurance Fund Revenue on Quality Health Service aimed at suggesting relevant strategies for enhancing knowledge and understanding of the NHIF scheme

1.7 Limitations of the Study

The biggest drawback that could jeopardize the dissertation's validity was related to the sampling technique and sample size. Given the nature that the healthy facility had large populations of over 4500 clients. It was also not possible to cover all

opinions from all the respondents among the population because this might have required considerable time and resources. Further, some respondents refused to give some information, for fear of being victimized on the extent to which they received healthy services from the particular services providers.

To overcome these limitations, the researcher got the samples for the study from all the respondents in the study area, using a sampling formula proposed by Godeen (2004). Once the sample size was obtained, the health facility was classified into departments depend to which the respondents received the quality hearth services. Six departments were selected for the study and each department was then classified into different sub-unit and then to gender. A sample of respondents from each department was selected in order to achieve the desired representation from various sub-units in the target population, while at the same time giving each subject in the population equal chances of being included in the final sample of the study.

1.8 Organizational of the Study

This research was divided into five chapters. The first chapter provided an introduction, background to the study, statement of the problem, purpose of the investigation, research questions, and relevance of the study, scope of the study, and limitations of the study, as well as dissertation organization. The second chapter focuses on the literature review, specifically the definition of ideas, theoretical and empirical literature review. It also included a conceptual framework and a research gap. The third chapter introduced the research topic and methods. In particular, chapter three discusses research design, study area, study population, sample, and sampling methodologies. It also included research instruments, data analysis and

presentation, research instrument validity and reliability, and ethical considerations.

The fourth chapter examined data analysis, presentation, and interpretation. Data was examined and summarized in accordance with the study's aim and objectives, and was given in the form of frequency tables and percentages. Chapter five summarizes the study's findings and their relevance to the study's relevant objectives, as well as how to analyze the influence of National Health Insurance Fund Revenue on Quality Health Service in Tanzania. It includes the researcher's recommendations for the findings as well as the conclusion, and it also highlights the contributions that this study can make in determining future research areas.

CHAPTER TWO

LITERATURE REVIEW

2.1 Overview

This chapter reviewed literature on the study's issue. It comprises theoretical as well as conceptual literature. First and foremost, the thoughts and theories established by many experts on the study are studied and summarized in numerous studies, publications published and unpublished in relation to the area of study. It also establishes the aspects that contribute to the good influence of National Health Insurance Fund Revenue on Quality Health Service in Dodoma, Tanzania.

2.2 Conceptual Definitions

This section presented key concept definition includes health, NHIF, quality of health services, Dodoma regional referral hospital and the meaning of impact to this study.

2.2.1 National Health Insurance Fund (NHIF)

NHIF is a government-operated health insurance scheme aimed at providing financial risk protection and improving access to healthcare services for the population. NHIF collects premiums and other sources of revenue to fund healthcare services (NHIF Act, 1999).

2.1.2 Revenue Collection

Revenue collection is the process of collecting funds or income by NHIF from various sources, such as individuals, employers, or the government. These funds contribute to financing healthcare services provided by NHIF. (NHIF Act, 1999).

2.2.3 Quality Health Service

Quality health services refers to the overall standard and effectiveness of healthcare delivery, including dimensions such as accessibility, availability of medical staff and equipment, patient satisfaction, adherence to clinical guidelines, and patient outcomes (WHO, 2000).

2.2.4 Health facility

A health facility is any well-established physical structure where healthcare is offered. Health facilities are controlled to some extent by legislation in many countries; licensing by a regulatory agency is frequently required before a facility may open for operation. For-profit enterprises, non-profit organizations, governments, and, in rare situations, individuals may own and run health care facilities, with proportions changing by country.

2.2.5 Impact

The impact of NHIF money collection on the quality of health services offered at Dodoma Regional Referral Hospital is quantifiable. It represents the changes or consequences that result from the use of NHIF money.

2.2.6 Insurance

Insurance is a contractual agreement in which the insurance company agrees to compensate the insured for damage or losses caused by man-made/natural calamities or any other unpredictable occurrence in exchange for a fee (premium). A term insurance policy, for example, offers to pay a set sum of money if the policyholder dies during the specified time (policy period). If the policyholder survives the policy

period, the insurance contract is null and void, and the insurance company is under no obligation to pay the policyholder any money.

2.2.7 Health Insurance

The MNT Editorial Team (2016) defines health insurance as "a type of insurance coverage that covers the cost of all insured individuals' medical and surgical expenses." It is also stated that the insurer's payments will be determined by the type of health insurance coverage.

2.3 Health Sector Reforms in Tanzania

Tanzania's health system changes can be traced back to the establishment of a health sector reform strategy focused on healthcare financing in 1995. This was the first step toward instituting user fees in public hospitals. The National Health Insurance Fund (NHIF), which was made mandatory for the formal sector and the voluntary Community Health Fund (CHF) were the two principal alternatives to user fees that were implemented. The programs differ in that the NHIF is directed at the formal sector, whilst the CHF is aimed at the informal sector. Tanzania also has a number of private health insurance systems.

All of Tanzania's health-care reforms intended to improve health-care services for Tanzanians. This means that the government has been working hard to ensure that Tanzanians working in both the official and informal sectors have expanded access to quality health care. As a result of the reforms, two insurance programs covering all health requirements of Tanzanians, including those living in rural regions, were introduced.

2.4 The Creation of NHIF

The scheme was formed by Act of Parliament No. 8 of 1999, with its focus on all civil officials working in the country's civil organizations. The adjustments made to the insurance scheme resulted in an extension of the system's coverage, as it covered employees from the private sector, the formal and informal sectors, students, and families by providing its members with various packages and programs (Denis, 2017).

The NHIF was established with the goal of implementing the principle of universal coverage in the health sector. The program was also designed as an alternative to the user fees structure adopted in 1995 as part of health sector reforms. The scheme's key values include being a decent cooperative organization that acts in the best interests of its members, encouraging responsiveness and creativity in response to changing member demands, and being accountable to the fund's stakeholders.

The main function of the NHIF is to provide medical equipment and facilitate provision of health services through the accredited facilities. The facilities provide healthcare services to NHIF members and NHIF has the duty to reimburse the accredited facilities. Msaki (2003) asserts that “National Health Insurance Fund has been created with the view of providing members of the public services with the health insurance coverage. The functions of NHIF are; to collect monthly contributions and process providers‘ claims, to register members and issue identity cards, undertake the process of quality assurance, to provide health assurance education to the public and enhance public relations, to account for the funds so collected and invested to accredit and inspect health givers and broaden accessibility

to health particularly in rural areas of the country and investigate fund so collected order to earn income, inspect employers to check compliance and carry out an actuarial assessment and evaluation.

2.5 Critical Reviews of Theories

2.5.1 Theories used Govern the Study

This part emphasized on analytical discussions about the impact of National Health Insurance Fund Revenue on Quality Health Service in Dodoma City, Tanzania. It was important to center the argument within a theoretical context as summarized by different scholars in the discipline of National Insurance Funds revenue collection and the provision f quality health services. Numbers of theories were analyzed to acquire an equal understanding the impact of National Health Insurance Fund Revenue on Quality Health Service. Each theory critically stated the interlinking of concepts and variables that inform the aim of the study. The theories discussed and analyzed were Hannan & Freeman's Theories of Organizational Effectiveness, Demand for health insurance theory, Government intervention in demand for health insurance theory and State-funded insurance theory.

2.5.2 Government Intervention in Demand for Health Insurance Theory

This study was guided by Stiglitz's government interference in demand for health insurance theory, which he established in 1989. According to the hypothesis, the health care market is plagued by asymmetric information among consumers, health providers, and insurers, resulting in an unfavorable selection dilemma. This asymmetry of information also leads to supplier-induced demand, in which health care professionals have an incentive to prescribe more health care services in order

to raise their pay. Furthermore, many health conditions, such as vaccines, smoking, and obesity, frequently have externalizes (Cutler, 2002).

The fundamental principle of Government intervention in demand for health insurance is that all both reasons are equally likely in influencing the establishment of a unified public health insurance system. Acknowledging the importance of safety net for the most vulnerable after the monetary crisis in 1998 and the failure of existing government-run health insurance system in covering the informal workers who are more likely to be uninsured, the government passed the SJSN Law No. 40/2004 as the first law regulating the establishment of the Social Security System in Indonesia that includes health insurance and pension. However, various stakeholders in employer associations challenged the implementation of this law.

2.5.3 State-funded Insurance theory

Savedoff created this idea in 2004. The idea focuses on how state-funded insurance is the most widely used health insurance system in the world. This system is sometimes referred to as a National Health Service system because it gives access to a network of public health providers that is paid by general tax income for the entire population. In theory, by providing health care services to everyone, this approach overcomes the problems of adverse selection and risk selection.

2.6 Critical Review of Empirical Studies

Matunda (2014) undertook a study to determine whether the functions of the National Health Insurance Fund are real or fictitious. The stratified sample methodology was employed in the study, with questionnaires, interviews,

observations, and documentary review being chosen data gathering methods. The survey's findings revealed that the majority of respondents who took part in the study were dissatisfied with the services provided by the scheme and wished to resign from it. The study also found that NHIF's services were not sufficient, lacked civility, and lacked credibility. The study also found that NHIF's services were not sufficient, lacked civility, and lacked credibility. The findings also found that the scheme's services are insufficiently available, are not billed appropriately and consistently as assured by NHIF, and are not delivered on time.

Boateng, et al., (2016) conducted an investigation to assess the performance of Ghana's National Health Insurance Scheme (NHIS). The investigation's goals included examining the value of the benefit package supplied to scheme participants as well as the responsiveness to the needs of health care providers. According to the findings of their inquiry, the value of benefit packages supplied to NHIS members has increased. Despite an increase in the value of the packages, the problem stems from a lack of response to the needs of health care professionals. This diminishes the scheme's effectiveness in enhancing service provision, especially given that health care practitioners are the primary providers of health services to patients.

Another study named an Assessment of the Effect National Health Insurance Scheme Capitation Payment to the Healthcare Facilities conducted by Hassan, 2022 in Yobe State in Nigeria concluded that, the capitation payment mechanism to the healthcare facilities impacted positively on the NHIS, providers, and the enrollees. Specifically, the study revealed that capitation increased the revenue of healthcare facilities, increased quality of services, improved provision of drugs and

consumables as well as ameliorated the maintenance of infrastructures. Generally, capitation payment mechanism was found to increase competition between healthcare facilities and reduced the out-of-pocket expenses for healthcare by the enrollees.

Kumar, et al., (2011) conducted another study on health financing in India. According to the study, health financing in India is the root cause of health disparity, insufficient availability, unequal access, low quality, and high costs for health care services. The data also show that the Government of India has committed to increasing government spending on health from 1% to 3% of the country's GDP. It was concluded that higher government funding for public health institutions, along with flexible financial transfers, would improve health system performance. Increased government funding for health-care facilities can also help to improve quality assurance.

Mkude, 2022 using qualitative research and interpretative paradigm where by sixteen respondents were involved in this study through an in-depth interview as a primary method of data collection. Content and thematic analysis were used to draw themes from data in his study of National Health Insurance Fund in the Informal Sector: Challenges and Constraints Experience conducted in Dar es salaam Tanzania founded that the operation of the NHIF in the informal sector is facing challenges such as a lack of information about health insurance; the packages attract sicker than healthy individuals and informal social protection attracts individuals more than NHIF.

Kgokgwe (2014) sought to examine the overall performance of the insurance plan in Botswana. The goal was to see if there were any changes in the services given in Botswana hospitals after patients joined the insurance system. The study relied on data from documents as well as key informant interviews. According to the study's findings, the hospital's capacity to deliver health services was limited. This was owing to a lack of resources, including human resources for health and financial resources. These findings imply that the running insurance plan did not contribute to the improvement of health services offered to scheme members.

2.7 Research Gap

There were no researches of the same conducted in Dodoma City Council, Dodoma Region on assessing the impact of National Health Insurance Fund Revenue on Quality Health Service in Dodoma City, Tanzania. From empirical, many studies have been undertaken and focused on how insurance schemes have been established and how the health of scheme participants has been influenced. These studies are not particular to assess the impact of NHIF revenue collection on delivering quality health services While the studies mentioned above provide insights into the impact of health insurance schemes, capitation payment mechanisms, and the implementation of NHIF in different settings, there is a research gap regarding the specific impact of NHIF revenue collection on the quality of health services in Dodoma Regional Referral Hospital.

The mentioned studies focus on different aspects such as utilization, financial protection, provider perspectives, and challenges in the informal sector. However, there is a lack of empirical evidence specifically addressing the relationship between

NHIF revenue collection and the quality of health services provided at Dodoma Regional Referral Hospital.

2.8 Conceptual Framework

This is a presentation of the factors and concepts that guided the researcher in the study to collect data in order to satisfy the study objectives. As used by Onen and Oso (2008), this conceptual framework depicts the relationship and interrelationship between the variables to be researched (these are independent variables), demonstrating how the independent factors affect the dependent variable. The researcher used the same principle in the study by testing how independent and dependent variables work.

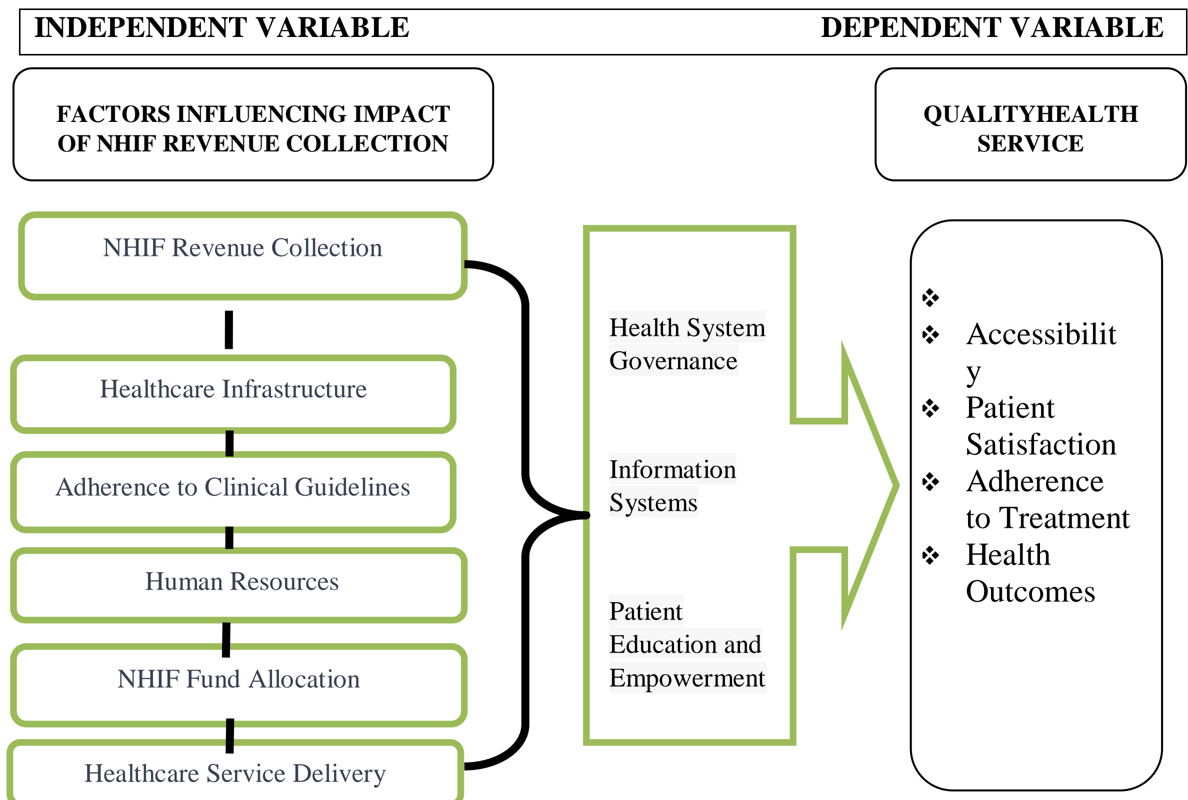


Figure 1.1: Conceptual Framework for the NHIF Revenue Collection

The conceptual framework begins with an idea to assess the impact of National Health Insurance Fund revenue collection on quality health service, using Dodoma Regional Referral Hospital in Dodoma as an example. This provides analytical support on how to describe the variables captured in the study, and these variables tend to have interrelationships, so the conceptual framework groups the variables into independent and dependent variables to demonstrate variations.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Review

This chapter covered the technique used by the researcher in the study, including the research approach and design, study population, study area, sampling design used, and data collection devices. Then, difficulties concerning field methods, data processing and analysis, and data validity and dependability were emphasized.

3.2 Research Approach

Botha (2011) defined research approach as the conceptual framework within which a study is carried out. It is a fundamental plan that guides data gathering, measurement, and analysis. According to Kothari (2014), the framework describes the types of information to be collected, the source of data, and the data gathering technique. According to Creswell (2014), research approaches are study strategies and procedures that cover the phases from general assumptions to precise methods of data collection, analysis, and interpretation.

According to Creswell (2014), researchers around the world use three research approaches: qualitative, quantitative, and mixed techniques. Furthermore, qualitative research is a method for investigating and comprehending the meaning that individuals or groups attach to a social or human situation. The research process includes developing questions and procedures, data collection in the participant's environment, data analysis inductively building from particulars to general themes, and the researcher providing interpretations of the data's meaning. While quantitative research is a method of testing objective hypotheses by investigating the relationship

between variables.

The researcher used a mixed study approach since it was thought necessary to compare data collected through open ended questions and those collected through closed ended surveys. Furthermore, the researcher used mixed methods since the theory behind mixed methods was that all approaches had bias and flaws, and collecting both quantitative and qualitative data balanced out the weaknesses of each type of data.

3.3 Research Design

Because the study intended to use a mixed research methodology, exploratory sequential mixed techniques were used to create data collection instruments, sample the target population, analyze, and present research findings. According to Creswell (2014), exploratory sequential mixed approaches are the inverse sequence of explanatory sequential design. The exploratory sequential technique begins with a qualitative research phase in which the researcher investigates the perspectives of participants.

This study was conducted using a cross-sectional survey design through which data were gathered from a cross-section of NHIF service providers, beneficiaries, and other stakeholders including hospital administrators, Key informants (Hospital Management committees' members. Purposive sampling technique and simple random sampling procedures were used to get 97 respondents for the study. The knowledge gleaned from the data analysis was then used to construct a second, quantitative phase. The qualitative phase may be used to create an instrument that is

most suited to the sample under investigation. The researcher used an exploratory research design to generate data from key informants (KI), i.e. during key informant interviews / in-depth interviews (IDIs), in order to triangulate the results from the quantitative gained from the study.

3.3.1 Profile of Study Area

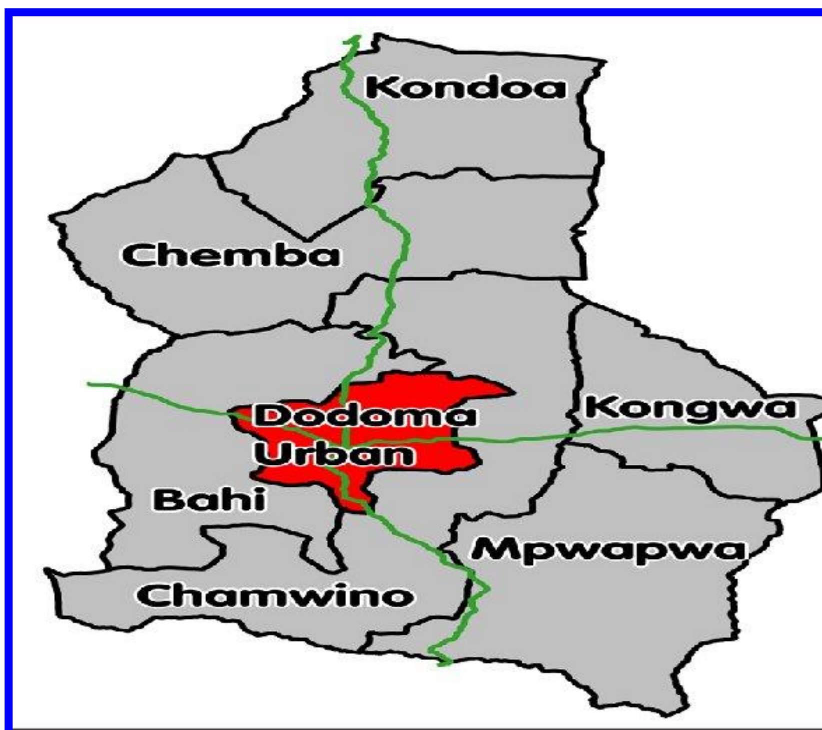
Regional Referral Hospital as common known as General hospital is one of 28 Regional referral hospitals in Tanzania located in Central Zone-Dodoma Region - Dodoma CC st Madukani – Mmasi Street. The area not much researched on issues related to National Health Insurance Fund revenue collection on quality health service. Thus, the selection criteria aims to determine the phenomenon in relationship to the future anticipation in terms of finding information based on the problem under the study, also from the study it was easy for respondent to answer questionnaire.

The region has a total of 16 Hospitals, 47 Health centers and 393 Dispensaries. Dodoma Regional Hospital has the capacity of 420 beds and has 35 external and internal departments including a special clinic. On average, 400 people are served as outpatients per day in different departments at the hospital. The Hospital provides curative, preventive, Promotive and rehabilitative health Services for the community of Dodoma Region. Dodoma Regional Hospital with 420 beds has 35 external and internal departments including a special clinic. On average 400 people are served as outpatients per day in this department. The length of hospital stay is between 3 days and around 5214 operations are performed per year. The number of services is between 35 and 40 per day and the operation rate of parents is 23%.

The Dodoma Regional Referral Hospital operates as a Referral Center for the District Hospitals of Kondoa, Kogwa, Mpwapwa and Chamwino and other districts of Kiteto (Manyara Region), Manyoni (Singinda Region) and Gairo (Morogoro Region). It is also used as a Hospital Center for Bahi District as the district does not have any hospital. At any time it serves those who receive it directly from home.

Figure 1.2: Map of Dodoma City

The areas surrounding Dodoma Regional Hospital are seven districts and city councils, which are Bahi, Dodoma city, Kongwa, Mpwapwa, Kondoa, Chemba and Kondoa council. Dodoma Region has a population of over 2 million people. Dodoma



Regional Referral Hospital as a second level hospital serves as a level 1 referral hospital for the Dodoma district council and the districts of Morogoro Region, Manyara Region and Manyoni District hospitals.

3.3.2 Study Population

The Dodoma CC is one of seven districts within the Dodoma Region. The City Council has a population of 2,642,287 from a statistical calculation based on the 2022 National Population and Housing Census. The health facilities in the country are those already stated (one Health Centre, one CCHP compound) and drug stores. The communities of Dodoma City Council are largely farming communities. And most communities are virtually empty in the farming season from Mondays to Saturday when farmers go to work on their farms.

The study population includes those who were employed and patients, client's guardians who have an access to NHIF scheme. The researcher believes that the selected population were eligible based on the selected criteria, given the size of the population, and limited time, the set of 97 sample, with sampling using purposive sampling method, with the criteria that each of the selected respondent are those who deal with provision of Health Insurance services.

3.4 Sampling and Sample Size

The sampling frame was the members' of the NHIF scheme, relatives for the patients with the NHIF membership and the service provider's who approximated to be more than 970 populations from the study area which represented the entire population on the study area. The sample size used for this study at a 95% confidence level and with a 10% margin of error has been calculated to be 970. However, making room for a 5% attrition rate brings the total to about 97 respondents. Six (6) departments were conveniently sampled from 10 existing departments which include OPD, Emergency, Internal Medicine, Surgery, Pediatric, RCH, CTC-TB, psychiatric

department, Dental and Eye Department as well as Orthopedic and Neurosurgery department. It was in these six departments' (OPD, Emergency, Internal Medicine, Surgery, Dental and Eye Department, Orthopedic and Neurosurgery) that the respondents' questionnaires were administered and the health worker questionnaires were administered to the five (5) health officers in charge of the respective health department under the referral facilities in Dodoma Regional Referral Hospital.

The following formula by (Kothari 2014) applied to calculate the number of sample size required;

$$n = \frac{N}{1 + N(\varepsilon^2)}$$

Whereby n=Sample size

N=Total population

e= 10% (Error)

$n=1038/(1+970*0.1^2)$

n= 97

3.4.1 Probability Sampling Techniques

According to Kothari (2014), a sample of about 10 percent of a population can often give a reliable data. Since, the respondents are of high homogeneity, the researcher selected 10% of 970 of the target population. In additional the researcher used stratified sampling techniques as defined by (Taherdoost 2016) is where the population is divided into strata (or subgroups) and a random sample is taken from each subgroup. A subgroup is a natural set of items. Subgroups were based on village size, gender or occupation (to name but a few). This technique was applied because of variation within a population. Therefore, a researched managed to sample a total sample of 97 which represent 10% of the target population and basing on age,

village size and occupation of targeted respondents.

3.4.2 Purposive Sampling Method

Purposive or judgmental sampling is a strategy in which particular settings persons or events are selected deliberately in order to provide important information that cannot be obtained from other choices (Maxwell, 1996). The non-probability sampling technique was used in selecting the respondents from public office within the sample of 104 sample population. The study employed the judgment sampling because it enabled the researcher to select offices which was to provide the details about the study purpose. Since the study employed both qualitative and quantitative methods as research design then it was relevant for the researcher to use both techniques to come up with relevant sample for the study.

The respondents who were sampled in this categories are; Patient, NHIF Service Provider, Nurse, Patient guardian/Relative, Facility Security. Furthermore, the researcher sampled to 7 to 11 members from the health facility were purposively selected from each department to participate in the study. A list of all members was to be written on a piece of paper, folded and randomly selected one piece of paper to represent the name of one member to participate for each department. This process was done for all the health facility for all departments of Dodoma Regional Referral hospital so as to reduce biasness in sample selection.

3.5 Data Collection Instruments

This research work used two separate questionnaires to collect the needed information on the field. One set of questionnaire (respondent's questionnaire) was

administered to respondents who have an NHIF membership and the second set (health worker questionnaire) was administered to five health officers. Both questionnaires were administered to collect respondent's data based on the study variables.

3.6 Pre-testing

Pre-testing was done in Makole Urban Health Centre in Dodoma City Council which is adjacent to Dodoma Regional Referral Hospital in the same Dodoma City and bears similar demographic characteristics as the selected health facilities. The pre-testing allowed for the making of essential corrections in some wording of items in the questionnaire. The corrections made the questionnaire administration smooth and easy.

3.7 Data handling, Processing and Analysis

In the preparation for the field work, the researcher first obtained an introduction letter from the University in order to seek permission from the office the RAS. A permit from RAS was then used to obtained permission from Dodoma Referral hospital. Data collected was systematically organized and cleared by checking whether all the questions had been filled so as to carry out the analysis. Data was coded and entries into SPSS version 22 were done.

The outcomes of the coded data were tallied, tabulated, analyzed and summarized. Upon the completion of data collection, they were interred into Statistical Package for Social Sciences, cleaned and then converted into a SPSS datasets for statistical interpretation. Regarding the nature of the study, analysis of data was done by using

two data analysis methods which includes quantitative data and qualitative data analysis. All quantitative data analyses were done using statistical software package. Qualitative data analyses were done using the qualitative data analysis process namely; sorting, open coding, axial coding and selective coding with healthcare quality and access as major themes.

3.8 Validity and Reliability of the Data Collections Instruments

It is necessary to ascertain the validity and reliability of the instruments to be used to collect data so that the research findings are reliable. To take care of this, the following was put into considerations;

3.8.1 Validity

As defined by Creswell (2014), defined validity as the researcher checks for the accuracy of the findings by employing certain procedures. Those control measure are necessary to ensure accuracy of information obtained from respondents and to minimize bias. Validity was the most critical criterion and indicates the degree to which an instrument measures what it was supposed to measure. Therefore, there are three types of validity; content, construct and face validity. Content validity is concerned with establishing whether the questionnaires content is measuring what they are supposed to accurately measure and validate. Content validity was attained by the researcher getting an expert review of the instrument to assess content in relation to the areas or filed the researcher was studying. This process served as a pretest, permitting the deletion of items that were deemed to be conceptually inconsistent.

Face validity is the degree to which a test seems to measure what it reports to measure. The researcher gave out the research instruments to the participants during the pilot study and from the responses; the researcher was able to determine how valid the measure appeared on the surface with the help of the supervisors. Lastly, construct validity refers to whether the operational definition of variable being measured actuality reflects the true theoretical meaning of a concept. This involved giving the instrument to the researcher's peers and made interpretations on the theoretical meaning of a concept being measured.

3.8.2 Reliability

Orodho (2004) defines reliability as the degree to which a particular measuring procedure gives similar results over a number of repeated trails. Reliability is to indicate that a particular approach is consistent across different researchers and different projects (Creswell 2014).In other words, the reliability of measure is an indication of the stability and consistency with which the instrument measures (Sekaran, 2003). Therefore the researcher employed Triangulation to a combination of two or more theories, data sources, investigators, and data collection methods or to provide confirmation, validity and completeness.

Initially, a split half method was used to estimate the degree to which the same results could be obtained with a repeated measure of accuracy of the same concept, in order to determine the reliability of the instrument. This was done during the pilot study. A triangulation method for data collection used to ensure validity and reliability of data collected for this study. Basically it was involved the use of multiple data gathering techniques to investigate the same phenomenon. Used

methodological triangulation requires the use of multiple methods and this took the view that the researcher employed a mixture of methods and thereby avoided the limitations of any single method.

Therefore structured quantitative questionnaire used in the study however this method had some limitations like quantitative research method involved structured questionnaire with close ended questions. It led to the limited outcomes outlined in the dissertation. So the results failed to represent the actual occurring, in a generalized form. Also the study deployed the FGDs where by participants encouraged to feel free to be openly and give honest opinions.

3.9 Ethical Consideration

Before embarking on the data collections, the researcher obtained an introduction letter from the University in order to get the research permit from the MoH. A permit from the MoH and the permit from the Open University were also obtained in order to carry out the study in the facility. The researcher fully explained what was all about in advance in order to obtain the informed consent of the respondents. The ethical principle of justice was observed by selecting respondents from the target population.

The principle demands an equitable selection of participants, by avoiding participant's populations that may be unfairly coerced to take part. The researcher was sensitive at all times to ethical issues such as confidentiality and privacy of respondents. To this end, the researcher ensured the participants names and personal information did not find itself in the questionnaires or the final report. Where the

telephone numbers of the participants were required, they were coded and written on a separate sheet. The researcher respected the privacy of the participants by avoiding the areas that participants were reluctant to talk about. During the coding of the interviews, the researcher used audio recording to avoid capturing the image of the participants. This was done with the written consent of the participants. The researcher was also open and honest when dealing with the respondents by avoiding exploitation of the respondents. This meant being careful not to change agreements made with them. For instance, if the participant decided to withdraw from the agreement, the researcher granted the permission.

The findings of this research study would be co-owned by the researcher and the Open University. Participants however have the right to access their data and even recall it provided it is done before the publications of the final report. Finally, the questionnaires and interview guides filled were kept in a safe place so that incase the researcher needs to refer to something, they can be accessed easily during the process of data analysis. This is also done to ensure confidentiality of the content given is preserved. After compilation of the final report, all the filled questionnaires and audio files from participants were destroyed.

3.12 Conclusion

This chapter examined the study's research strategy and methodology. As a data-collection instrument, the researcher utilized a quantitative, descriptive, exploratory design. The analysis of the study was done through the SPSS version 22 and some presentations were developed through excel.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter presents the findings of the study of assessing the impact of National Health Insurance Fund Revenue on Quality Health Service in Dodoma City, Tanzania. The findings were presented in 4 sections with the focus on demographic characteristics, measures established for effective NHIF revenue collection for improvement of quality health services, established relationship between NHIF revenue collection and quality health of services and strategies and recommendations for optimizing the impact of NHIF revenue collection on the quality of health services.

4.2 Response Rate

The 80 patients with NHIF memberships and patient's relatives were issued with questionnaires to fill. Out of 80 questionnaires issued, 68 questionnaires were returned duly filled. During the second phase of the data collection, 9 Health service providers and 29 patients with NHIF membership were interviewed. Similarly, 11 patients with the NHIF memberships and their relative's respondents who scored a mean above 63 for measures established for effective NHIF revenue collection for improvement of quality health services, established relationship between NHIF revenue collection and quality health of services and strategies were sampled from the 97 who had filled in the questionnaire and interviewed. These are illustrated in Table 4.1.

Table 4.1: Response Rate

Category	Total Instruments	Returned	Response Rate
Patient NHIF membership	71	68	95.8%
NHIF Service Provider	14	14	100%
Patient None-NHIF Member	09	09	100%
Nurse (Health Providers	03	03	100%
Total	**97**	**97**	**100%**

Source: Research Findings, (2023).

Table 4.1 shows the percentage of patients with NHIF membership who completed the questionnaires was 95.8%. The response rate for NHIF service providers, Registered Nurse and Patient with-out NHIF membership who were interviewed was 100%. This response rate was adequate for the statistical reporting because according to Mugenda and Mugenda (2012), a response rate of 50% and above is sufficient for data analysis to proceed. This response rate was made possible because the researcher personally administered the questionnaires and supervised the entire process of data collection.

4.3 Demographic Characteristics of the Respondents

The respondents were required to fill out a questionnaire indicating the type of membership they hold. Table 4.2 displays the percentages that were computed.

4.3.1 Gender of Respondents

Gender of respondents was sought in order to establish the true representations of the participants in terms of their sex. This is because gender is one of individual differences that could affect the results of the study. The distribution of participants by gender was presented in Table 4.2.

Table 4.2: Gender of Respondents

Variable	Frequency(n)	Percentage(%)
Male	39	40.2%
Female	58	59.8%
Total	**97**	**100%**

Source: Research Findings, (2023).

According to Table 4.2, females outnumbered males by 59.8% to 40.2%. This demonstrates that all genders were given equal opportunities to participate, resulting in no substantial gender bias during the research investigation.

4.3.2 Age Brackets of Respondents

The respondents were asked to indicate their age group in the questionnaire. This was sought since it was one of the factors that could affect the results of accessing the NHIF scheme services. The percentages were then computed and summarized as shown in Table 4.3.

Table 4.3: Age of Respondents

Age brackets	Frequency (n)	Percentage (%)
18 – 25	15	15.5%
26 – 35	54	55.7%
36 – 55	22	22.7%
56+	6	6.2%
Total	**97**	**100%**

Source: Research Findings, (2023).

The majority of respondents in their replay study were between the ages of 26 and 35, as seen in Table 4.3. Table 4,3, shown age of the respondents, the study found majority of the respondents were aged between 26 to 35 years, this implies most of the respondents have an access to NHIF related service at General hospitals in

Dodoma Region. The study also found significant number of respondents 22 (22.7%) were aged between 36 to 55 years, and 15.5% of the respondents were aged between 18 to 25 years, the study found insignificant number 6 (6.2%) of respondents were aged above 56 years as shown in Figure 4.

4.3.3 Marital Status of Respondent

This study gathered information from respondents about the study's geographical area, age, marital status, education level, and position. It was discovered that it was critical to collect data on respondents' demographic information in order to determine their social and cultural attitude toward the community under research. The survey findings revealed that the gender composition of the sampled households' is headed mainly by the males. The results indicated that 81.4% of sampled households were male-headed and 18.6% were female-headed (Table 6). This composition is in line with the baseline survey result yet less than the Tanzania national population mean of 26.1% in 2022.

In Tanzania, female-headed households mainly constitute unmarried households (single. Divorced, widowed and separated), and the high percentage of married households in the sample suggests that some of the female-headed households interviewed during the research study area single mothers as resulted by many factors include divorce and death of spouse.

Table 4.4: Sex of Household Head

Sex of household head	Frequency	Percent (%)
Male headed	79	81.4
Female-headed	18	18.6

Source: Research Findings, (2023).

Marital status is expected to have a positive implication on social organization and economic activities such as resource management. Findings from the research study given that there is a low rate of widowed, widower, single, separated, divorced and co-cohabiting among the participants from the household in the operation area, this might imply that the majority of the respondents would have additional responsibilities for their spouses and children. This might imply that married couples are likely to be more the beneficial of the NHIF scheme services The findings revealed that 66.0% (n=64) of respondents were married, 21.6% (n=21) of respondents were single, 10.3% (n=10) were co-cohabiting as indicated in a Table 4.5.

Table 4.5: Marital Status

Marital Status	Frequency (n)	Percentage (%)
Single	21	21.6%
Married	64	66.0%
Widowed	02	2.1%
Co-habituating	10	10.3
Total	**97**	**100%**

Source: Research Findings, (2023).

4.3.4 Household Size

The average household size for sampled households is 5 with the existence of multiple modes, 4 and 5 are the most frequent occurrences in most household sizes. This is exceeding the population and household's census report of 2022 which indicated that in Dodoma municipal household size was 4.4. This suggests that the household size has decreased. The findings in Table 8 indicated that most of the members in the household range between 3-to 4 (49.5%), 1-2 members (29.9%), 5-6 members (11.3%) and few household members were more than 7 (9.3%%).

Table 4.6: Size Range

Size range	Frequency	Percent (%)
1-2 members	29	29.9%
3-4 members	48	49.5%
5-6 members	11	11.3%
7-8 members	7	9.3%
Total	**97**	**100.0**

Source: Research Findings, 2023

4.3.5 Street areas of Respondents

According to the findings of this study, Nkuhungu Chama had the most respondents (18.6% (n=18) compared to Wajenzi (14.47% (n=14) and Majengo Sokoni (12.4% (n=12), while Mbwanga and Uhindini had the fewest (4.1% (n=4) of the total sampled population involved, as shown in Table 9. Father; majority of the respondents of the study were from Dodoma MC with the 88.7% (n=86) of the participants followed by Kondoa with 5.2% (n=5), Chamwino DC with 4.1% of the respondents while Bahi DC had 2.1% (n=2) of the entire study population.

4.3.6 Respondents School Enrolment and level of Education

It was critical for the researcher to ascertain the respondents' educational status since education influences individuals' decisions about the adoption of policies that increase access to key health services, improve financial security, and, eventually, lead to better health outcomes. Table 10 shows whether or not respondents have had formal schooling. The data revealed that 85.6% (n=83) of respondents received formal education and advanced to various degrees of schooling, whereas 14.4% (n=14) did not.

Table 4.7: Percentage of School Enrolment

School Enrolment (%)	Frequency (n)	Percentage
Yes	83	85.6
No	14	14.4
Total	**97**	**100%**

Source: Research Findings, (2023).

The level of education of the respondents was asked in order to examine if it has any influence on the impact of revenue collection on service delivery, respondents were asked to identify their level of education, in their replay the study found majority of the respondents 45 (46.4%) have first degree, as presented in Table 4.9.

Table 4.8: Education Level

Education Level	Frequency (n)	Percentage (%)
No formal education	1	1.1%
Secondary Education	5	5.2%
Diploma/Tertiary	44	45.4%
Degree	45	46.4%
Post-graduate	2	2.1%
Total	**97**	**100%**

Source: Research Findings, 2023

According to the research findings, (45.4%) of the respondents held a diploma, (5.2%) held a certificate, and (2.1%) held a postgraduate degree.

4.3.7 Religious status of Respondents

According to Table 4.10, the findings observed that 68.1% (n=66) were Catholics, Muslims, 27.8 % (n=27) were Muslim, 3.1% (n=3) were protestant. This means that the area where the study was done comprises mainly Catholics, which is religion of many respondents found in the study area.

Table 4.9: Religious Status

Religious Status	Frequency (n)	Percentage (%)
Catholic	66	68.1%
Muslim	27	27.8%
Protestant	3	3.1%
Total	**97**	**100%**

Source: Research Findings, (2023).

4.3.8 Economic Activities of the Respondents

Major economic activities of the communities got an access to the health services at general hospital in Dodoma include petty business, livestock keeping, farming and employment through government authorities.

Table 4.10: Economic Activities

Economic Activities	Frequency (n)	Percentage (%)
Livestock Keeping	23	23.7%
Farming	16	19.6%
Petty trade	17	17.5%
Salaried Employment	29	29.9%
Un-employed (Schooling)	9	9.3%
Small Mining	3	3.1%
Total	**97**	**100%**

Source: Research Findings, (2023)

In a field report their major activity at 29.9% of the respondents are employees. Another community of 23.7% does livestock keeping, 19.6% involved in farming, 17.5% engage in business, while 9.3% attending schools followed by 3.1% engaged on small scale miners (Table 4.11). During the data collection; the identification of community activities guided the researcher to assess to what extend does the community has an ability to contribute and access quality healthy services through the NHIF scheme hence the by considering these economic activities in diversifying source of income, through implementing projects which they are familiar with, and also how does the provision of quality health services positively impacted the intended communities.

4.4 Effective NHIF Revenue Collection for Improvement of Quality Health Services

4.4.1 Raising Community Awareness and Providing Access to NHIF Insurance Services

This study's factors included NHIF subscription, quality health care and access to quality health care, as well as revenue collection. The study goals have also influenced the assessment of the impact of National Health Insurance Fund Revenue on Quality Health Service. The indicator for quality health care has previously been defined as health care provided by trained medical workers in accordance with progressive nursing and medical practice standards (Institute 2016), which is primarily therapy based on diagnosis. The presentation on important study variables using chi squared to test association to NHIF income collection is shown in the table below. As shown in Table 1, the factors are diagnostic therapy, medical personnel-patient interaction, and patient satisfaction with health care in connection to NHIF revenue collection.

According to table 4.12 shown that 78.4% of the respondents were aware of NHIF while 21.6% were not (Table 14). On the other hand, about 73.3% of respondents were members of the scheme while 24.7% were not (Table 4.12). Indeed, 70 (72.2%) respondents who were aware of the NHIF were also members, while only 8 (8.2%) was not aware but joined the scheme. This implied that, the awareness is a pre-requisite for joining NHIF.

Other studies conducted in East and Central Africa indicated a varying enrolment in the schemes, for instances low percentages of enrolment were observed in a study on five CHIs in East and Southern Africa (Musau, 1999). In four schemes, enrolment percentages vary between 0.3% and 6.5% of the target population. In Senegal, one of

the CHI reached a coverage rate of 26% after 3 years of operation whereas another achieved an enrolment rate of 82% of the target population, (Carrin et al., 2005). In Mbulu District, about 28% were reported to be members and 25% non members (Mtei et al., 2014).

Table 4.11: Respondent's awareness and membership to NHIF

	Response	Awareness to NHIF		Total
		Yes	No	
Membership to NHIF	Yes	70 (72.2%)	6 (6.2%)	76 (78.4%)
	No	21 (21.6%)	0 (0.0%)	21 (21.6%)
	Total	**91(93.8%)**	**6 (6.2%)**	**97(100%)**
Satisfying with the service delivery	Yes	73 (73.3%)	0 (0.0%)	73 (73.3%)
	No	24 (24.7%)	0 (0.0%)	24.7%)
	Total	**97 (100%)**	**0** (0.0%)	**97(100%)**

Source: Research Findings, (2023).

However, 21 (21.6%) who were aware of NHIF did not join the scheme. The results suggested that although the awareness on the scheme was relatively high, some households did not join the scheme due to some other reasons. Berkhout et al (2008) urged that, apart from awareness, other factors such as financial constraints and poor health services could prevent people from low income countries from joining Community Based Health Initiatives. Further, the study revealed that, 73 (73.3%) of the respondents satisfied with the services provided by NHIF scheme while 24 (24.7%) was not.

4.4.2 Challenges when access NHIF Service

The respondents were asked about the most difficult factors that contributed to a decline in NHIF revenue collection at the General Hospital of Dodoma Town, and the study 52 discovered that the majority of respondents identified a poor tax collection system as the major challenge in revenue collection, as shown in Table 4.11. The study also looked at the challenges in provision NHIF hearth service. The

respondents explained some challenges the organization is facing in provision of Universal health care.

The study found that there were many challenges facing access to quality health care through the NHIF scheme that respondent's participants mentioned as indicated in Figure 4.1. Main challenges that most of the families in the study operation areas were Lack of awareness and understanding of NHIF policies and procedures (95.9%), Shortage of skilled healthcare professionals (93%), inadequate monitoring and evaluation of NHIF funded programs(91.8%), Insuffient healthcare infrastructure and equipments (85.6%), Limited availability of essentials medical supplies and medications (80.4%), Inefficient utilization of NHIF funds (78.4%), Inadequate funding allocation from NHIF (50.4%) as well as Administrative and bureaucratic hurdles in NHIF reimbursement processes (48.5%).

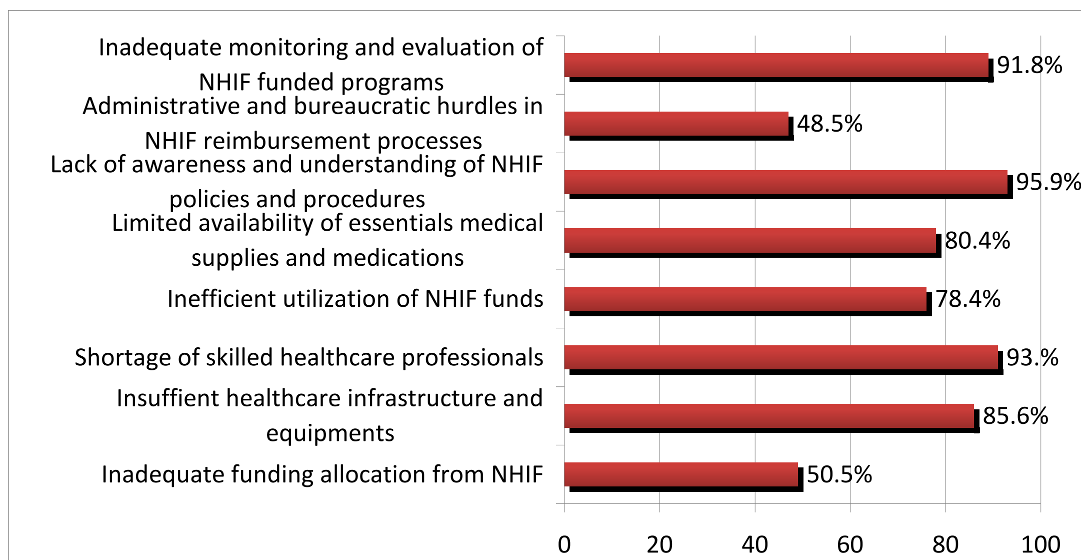


Figure 3.1: Common Challenges facing Respondents
Source: Research Findings, (2023).

Figure 4.2 shown that majority of the respondents mentioned that the most challenges facing access to the quality health services through the existing NHIF

scheme services is Shortage of skilled healthcare professionals (98.9%), Limited availability of essentials medical supplies and medications (97.9%), Inefficient utilization of NHIF funds (95.5%), Lack of awareness and understanding of NHIF policies and procedures (83.5%), Sufficient healthcare infrastructure and equipment (75.3%) followed by inadequate monitoring and evaluation of NHIF funded programs(64.9%) while Administrative and bureaucratic hurdles in NHIF reimbursement processes (58.8%).

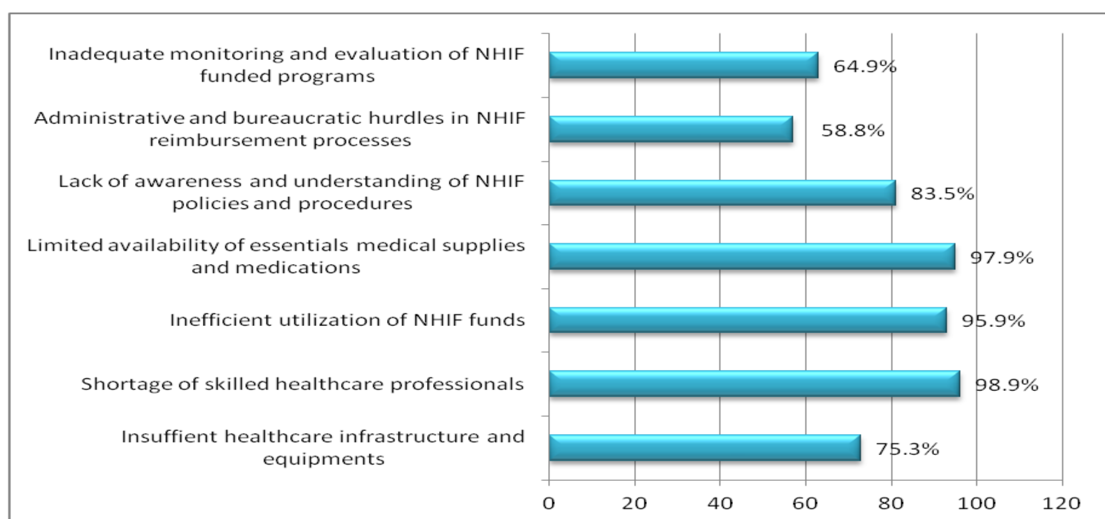


Figure 4.2: Major Challenges Facing Respondents when Accessing NHIF Scheme Services
Source: Research Findings, (2023).

The participants were given the option of answering optional questions about the current difficulties. The study shows that about 98.9% of the major challenges is provided by existence shortage of skilled healthcare professional both at facility and NHIF levels (Figure 3) Existing staffing both at health facility and NHIF based offices failed to provide necessary information regarding the proper way of accessing NHIF scheme services in order to have quality health services.

The researcher observed that the challenges that the faced were recurrent and inherent in the administrative setup. Through observation, the body language of the

participants seemed to suggest that the challenges facing the respondent when accessing the NHIF services were part of life and could not be solved. It seemed as though it was by default and design that the respondents faced such challenges.

> *"………We have been filling many complaints to the hospital facility administration regarding some of the clients who visited the health facilities and who needed the emergency healthcare using the NHIF cards. When visited different health facilities during night hours clients were not attended because they were told NHIF patients were attended only during the day hours. Even when reported the complaints direct to NHIF offices there was no feedback sent back to them on the complaints follow up………" One Respondent from OPD department.*

The respondents reported that NHIF do not have a well established system of dealing with emergency patients' cases. The respondents were resisting renewing their membership because NHIF had not instituted the proper system of sending feedback regarding reported complaints.

4.4.3 Source of Identified Challenges

The problems in providing adequate health care through insurance schemes are numerous, particularly for low and middle-income nations, and they include: Despite advances in improving health indices in many countries, health inequalities—both between and within nations remain significant (European Commission, 2010). Inequalities are mostly affected by socioeconomic factors such as wealth, education, and occupation, and hence occur outside of the classroom. For example, informal payments for health care services, which are prevalent in many emerging economies, disproportionately burden the poor (Jakab, 2007).

Another issue is rising health-care costs, which have risen dramatically in recent decades. Since 1970, total real per capita health spending has quadrupled, while

spending as a proportion of GDP has risen from 6% to 12% in industrialized nations. Total health spending in emerging economies has risen from less than 3% of GDP to 5%. These hikes have put governments under significant economic pressure, as well as people and businesses under financial strain. Rising income, population aging, and technology developments are the key drivers of growth in health spending. Changes in illness profiles and related risk factors are another factor that will boost spending (WHO, 2010).

The study also looked at the challenges in provision health care through insurance scheme. The respondents explained some challenges the accredited health facility is facing in provision of health care. A total of 69 (71.1%) who had visited the accredited health facilities especially Dodoma General Hospital were interviewed to establish their reasons for identifying the major challenges facing the respondents while accessing the health services through the NHIF scheme service bundles. Findings are shown in Figure 4.3.

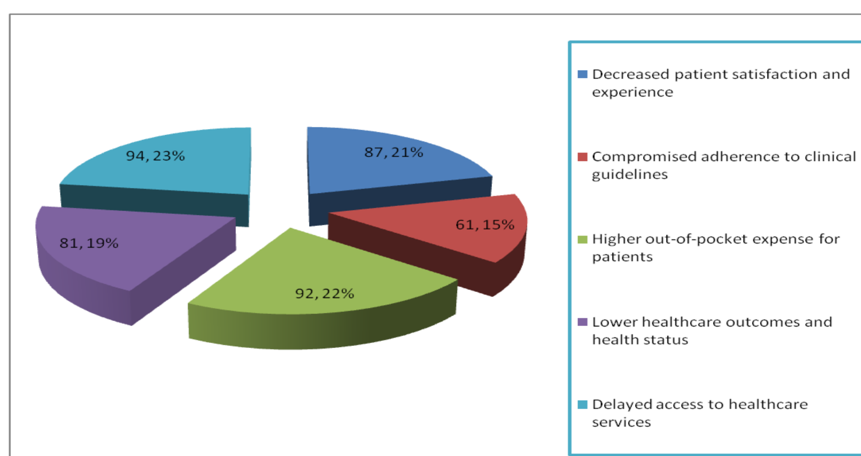


Figure 4.3 Reasons for Challenges' Identification (Multiple responses)
Source: Research Findings, (2023).

From the findings presented in Table 4.5 shown that the respondents indicated their perception towards challenges identification when visiting the health facilities as

follows: 94 (23.3%) mentioned the delayed access to the health care services, 92 (22%) identify the higher out-of-pocket expense for the patient, 87 (21%) decrease patient satisfaction and experience, 81 (19%) lower healthcare outcomes and health status and another 61(15%) cited the compromised adherence to clinical guidelines. These findings reveal that a majority of respondents who had an access the health-care services from the health facilities had delayed access to the health care services. That is why it had been easy to identify the major challenges when accessing the health care services through the insurance scheme when visit the health facilities despite owning the valid membership cards.

4.4.4 Suggestions to Improve the Identified Challenges

The study also looked at the possible solutions to the challenges in provision of quality health care services through NHIF schemes. The respondents explained some solutions for challenges in provision of health care. The respondents were asked to suggest the ways to improve NHIF the identified major challenges in the utilization of insurance.

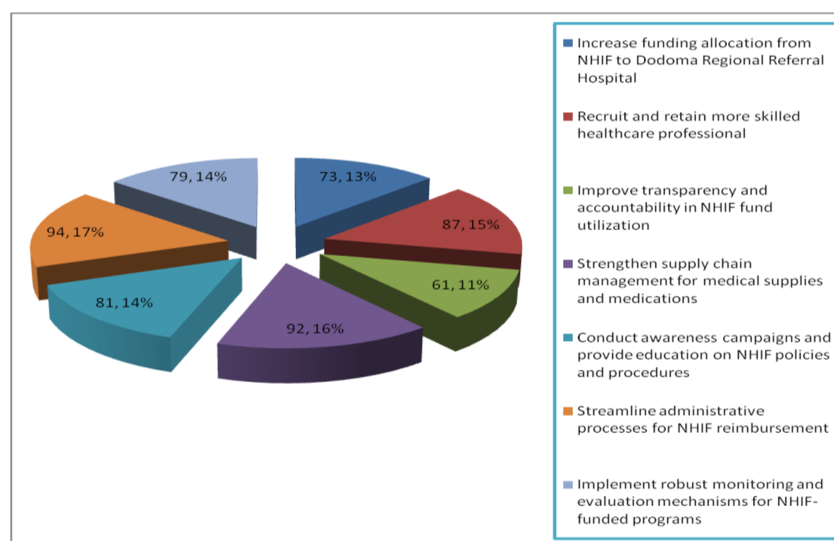


Figure 4.4: Suggestions to Improve the Identified Challenges (Multiple responses)
Source: Research Findings, (2023).

From the findings in Figure 4.4 shown an average of 94 (17%) respondents reported that Streamline administrative processes for NHIF reimbursement on the availability of NHIF services to the respondents should be enhanced. Another set of 92 (16%) respondents pointed out that strengthen supply chain management for medical supplies and medications should be made available at the accredited health facilities. Another 87(15%) mentioned that there should a proper mechanism of recruiting and retaining more skilled healthcare professional, the other 81 (14.7%) reported that there is a need for the service providers both heath facility and NHIF to conduct awareness campaigns and provide education on NHIF policies and procedures, also, 79 (14.3%) mentioned the implementation of robust monitoring and evaluation mechanisms for NHIF-funded programs while 73 (13.4%) respondents mentioned an increase of funding allocation from NHIF to Dodoma Regional Referral Hospital. These results implied NHIF needs to improve on its ways of disseminating information to the respondents.

> *"……………………. Respondents, who are bona fide clients, need to know the inclusive and exclusive health services. Also the accredited health facilities like Dodoma Regional Referral Hospital as commonly known as General Hospital should offer services to clients as per the agreement entered with NHIF…………….." One Respondent from RCH department*

4.4.5 Level of quality Service Delivery

The replies to the research questions were compiled in a table to identify the highest level of quality health service delivery recommended by the healthy facility in Dodoma Regional Referral. Respondents were asked to evaluate the level of quality healthy service delivery; in their response, the study discovered that community sensitization will improve service delivery, as shown in Table 4.13.

Table 4.12: Level of Quality Service Delivery

Level of Quality Service	Frequency (n)	Percentage (%)
Excellent	17	17.5%
Good	29	29.9%
Fair	42	43.3%
Poor	09	9.3%
Total	**97**	**100%**

Source: Research Findings, (2023).

The findings revealed that 42 out of the 97 respondents (43.3%) explained that the quality of service delivery is fairly, 29.9% well and good, 17.5% excellent and 9.3% declared poorly. Since the majority of the respondents reported fairly on the service provided, this implied that the level of quality health services provided through the NHIF scheme bundles is relevant on average.

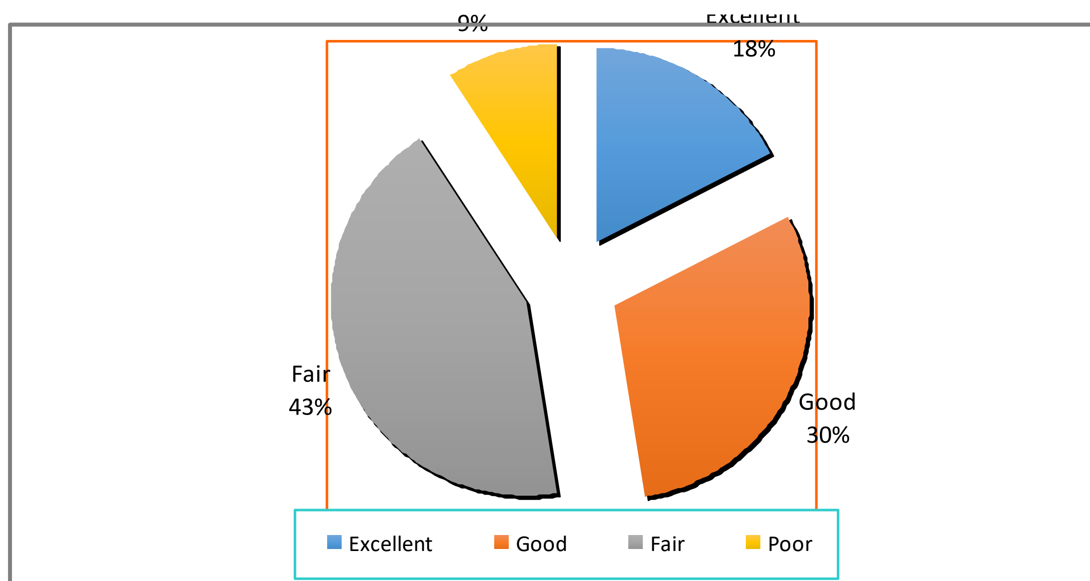


Figure 4.5: Level of Quality Healthy Service Delivered
Source: Research Findings, (2023)

4.4.6 Revenue Collection and Service Delivery Relationship

The respondents were asked if the existing moderate service delivery in Dodoma Regional Referral Hospital was mostly caused by poor revenue collection performance, and their comments are described in Figure 4.6.

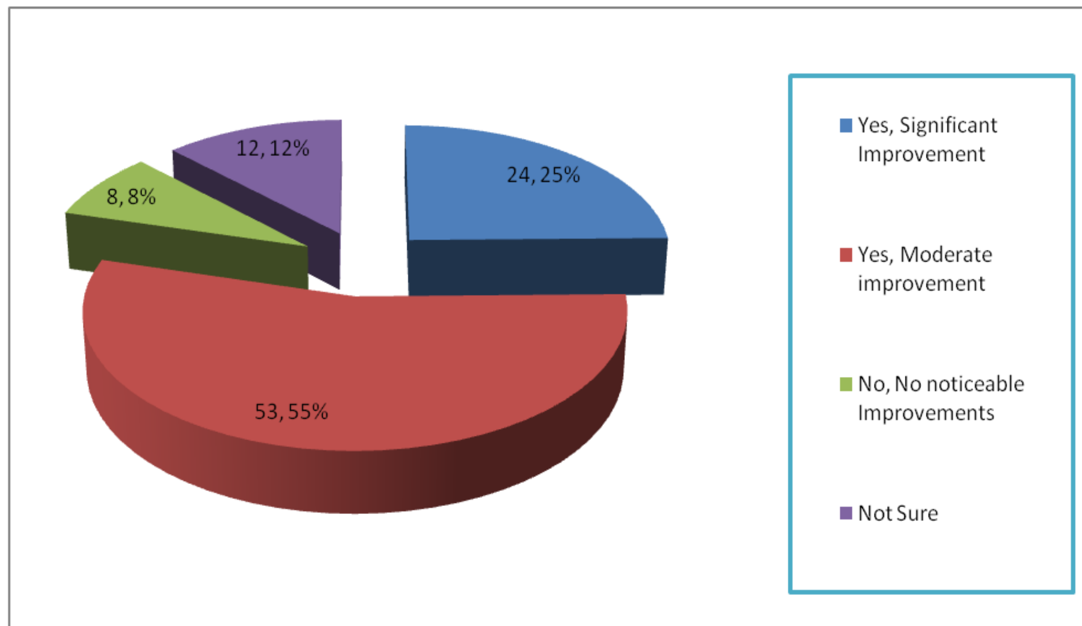


Figure 4.6: Relationship between Revenue Collection and Service Delivery

Source: Research Findings, (2023).

According to the data, 53 of the 97 respondents (55%) strongly agreed that service supply is moderately improved, 25% greatly improved, 12.2% were unsure of any improvement, and 8% disputed that they had not noticed any difference.

4.4.7 Source of NHIF Revenue Collection

The study wanted to collect the information regarding the areas with the high impact of NHIF revenue collection through the health-care services offered under the NHIF scheme through multiple response questions. The findings are shown in Table 4.14.

Table 4.13: Source of NHIF Revenue Collection

Responses	Frequency (n)	Percentage (%)
Available medical equipment and supplies	36	37.1%
Adequate staffing	8	8.2%
Timely access to healthcare services	13	13.4%
Quality and effectiveness	22	22.7%
Patient satisfaction and overall experience	18	18.6%
Total	**97**	**100%**

Source: Research Findings, 2023

From the findings shown in Table 4.14, 36 (37.1%) of the respondents identified the Availability of medical equipment and supplies if ensured its reliability can improve the source of revenue for the NHIF as one of the services offered at the health facilities, 22(22.7%) mentioned Quality and effectiveness of treatments and procedures; 18(18.6%) identified Patient satisfaction and overall experience and 13 (13.4%) mentioned Timely access to healthcare services while 8 (8.2%) adequate staffing and skilled healthcare professionals. The majority were aware of the services areas offered which can improve the revenue collection by NHIF health scheme. It was only few who mentioned staffing has limited contribution of revenue increase through the provided insurance scheme.

4.4.8 Strategies for Optimization of NHIF Revenue Collection (Multiple Responses)

To determine the most strongly recommended options for enhancing NHIF income collection, the replies to the research questions were summarized into a table and shown in the form of a figure. Respondents were asked to identify ways for optimizing revenue collection as a result of the NHIF's services. According to their reaction, increasing the number of healthcare professionals (33%) will increase service NHIF revenue collection since responders can be recruited with the existing professionals, as shown in Table 4.15.

Table 4.14: Revenue Collection Strategies

Revenue Collection Strategies	Frequency (n)	Percentage (%)
Improving infrastructure and facilities	14	17%
Enhancing medical equipment and technology	10	12%
Increasing the number of healthcare professionals	32	33%
Implementing healthcare management systems	19	20%
Strengthening healthcare quality	17	18%

Source: Research Findings, (2023).

The Figure 4.7 findings revealed that 20% recommended the implementation of healthcare management systems suitable to ensure internal control systems, 18% advocated for strengthening quality healthcare services, 17% called for improving infrastructure and facilities while the other mentioned strategy is to enhance medical equipment and technology (12%). The findings revealed that increasing the number of healthcare professional and implementing healthcare management systems were a key factor in the improvement of revenue collection.

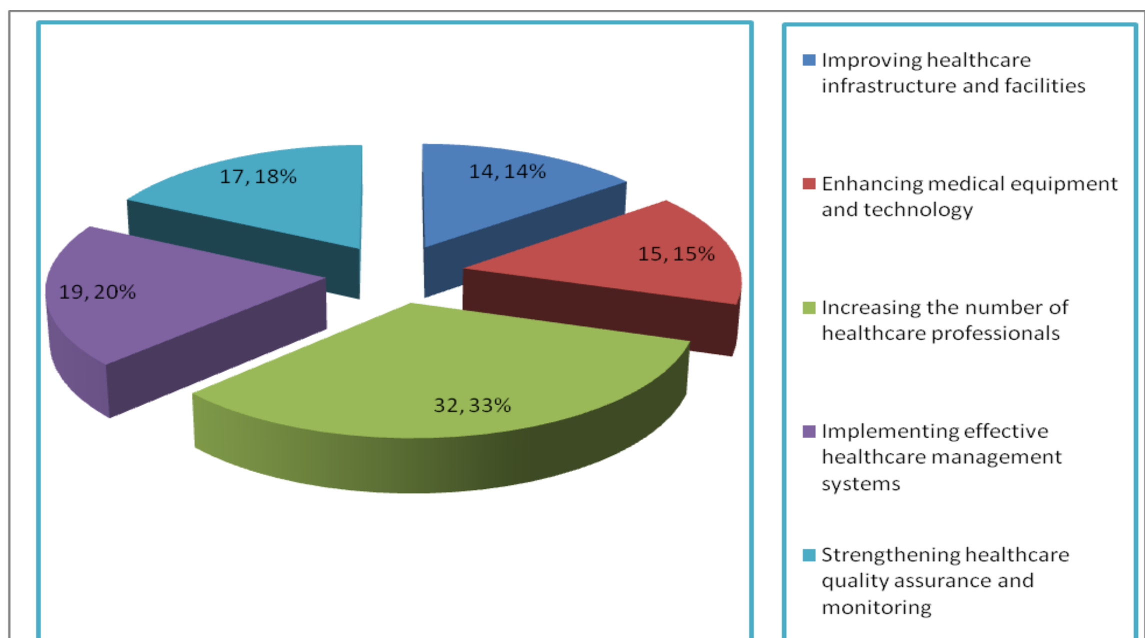


Figure 4.7: Strategies for Improving NHIF Revenue Collection

Source: Research Findings, 2023

According to the responses in the pie chart above, increasing the number of healthcare professionals and implementing healthcare management systems that contribute to NHIF revenue collection were the primary solutions to improving the declining revenue collections in health facilities, as specified in Table 4.16.

Table 4.15: Recommendation for Optimizing NHIF Revenue (Multiple Responses)

Responses	Frequency (n)	Percentage (%)
Enhancing health education	14	17%
Promoting preventive healthcare initiatives	11	11.3%
Improving patient-centered care and communication	36	37.1%
Strengthening collaboration between actors	17	17.5%
Implementing measures to reduce healthcare costs	19	19.6%

Source: Research Findings, (2023).

Recommendation for Improving patient-centered care and communication appeared, then, followed implementing measures to reduce healthcare costs either directly or indirectly. Trying to strengthening collaboration between NHIF and healthcare providers, enhancing health education and awareness programs for the community and Promoting preventive healthcare initiatives were recommended several times as among strategies of optimizing the NHIF revenue collection.

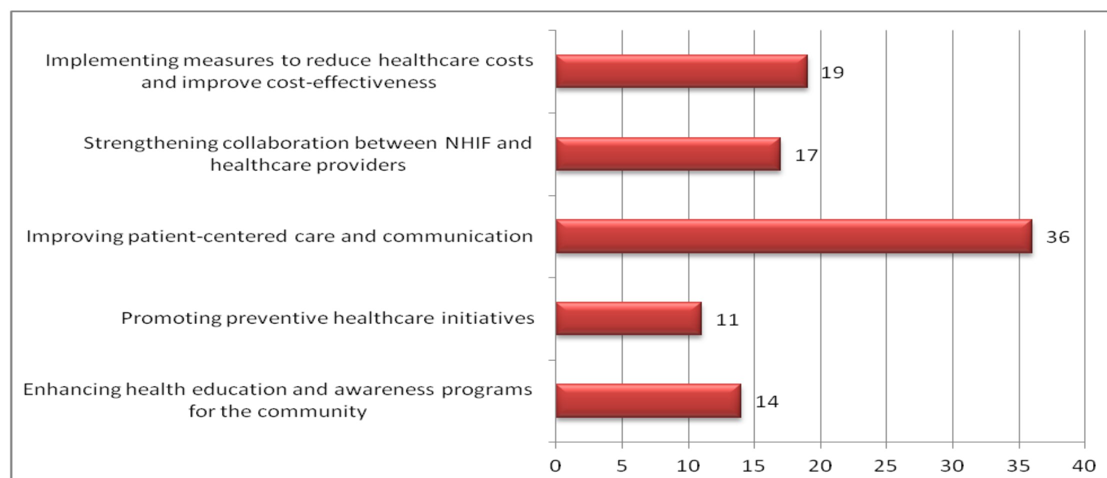


Figure 4.8: Proposed Recommendation for Improving NHIF Revenue Collection
Source: Research Findings, (2023).

4.4.9 Key Barriers for Improving NHIF Revenue Collection

Majority of the respondents who frequently visited the healthy facility for medical healthcare services were interviewed in order to establish their reasons on the barriers facing on improving the NHIF revenue collection.

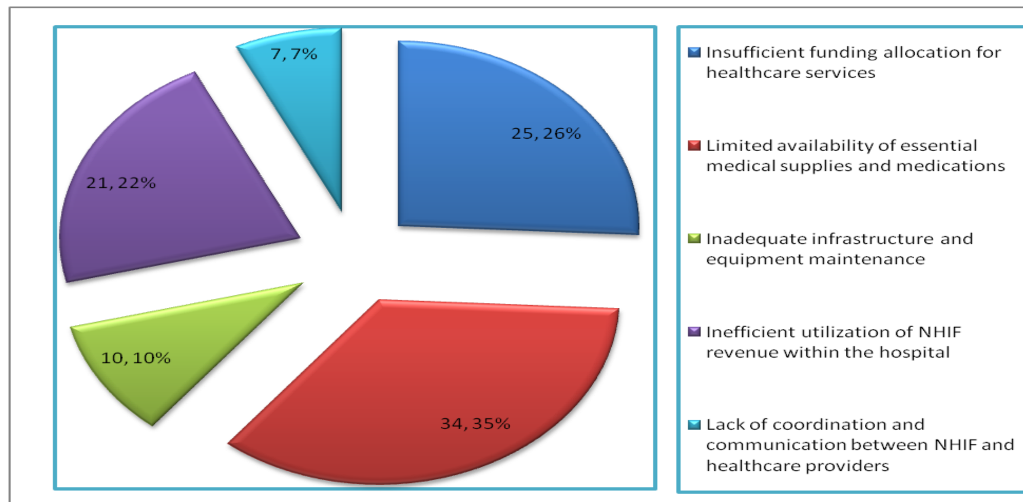


Figure 4.9: Key Barrier for Improving NHIF Revenue Collection
Source: Research Findings, (2023).

From the findings presented in Figure 4.9 shown that the respondents indicated their reasons for the key barriers that hinders on increased NHIF Revenue collection as follows: 34(35.1%%) there is limited availability of essential medical suppliers and medications at the health facility, 25(26.8%) claimed insufficient funding allocation for healthcare services. The other, 21(21.6%) inefficient utilization of NHIF Revenue within the hospital, 10(10.3%) mentioned Inadequate infrastructure and equipment maintenance, another 7(7.2%) cited Lack of coordination and communication between NHIF and facility. These findings reveal that a majority of respondents who had access the health-care services from the health facilities largely mentioned that unreliable availability of essential medical suppliers and medications was the major reasons and barriers for the NHIF to improve on the revenue collection.

4.4.10 Stakeholders Involvement in the Decision Making

The study also sought to find out how stakeholders have been involved on making decisions towards improving NHIF revenue collection by ensuring the quality health

care service is delivered by the health facilities, and the findings are illustrated in Figure 4.10.

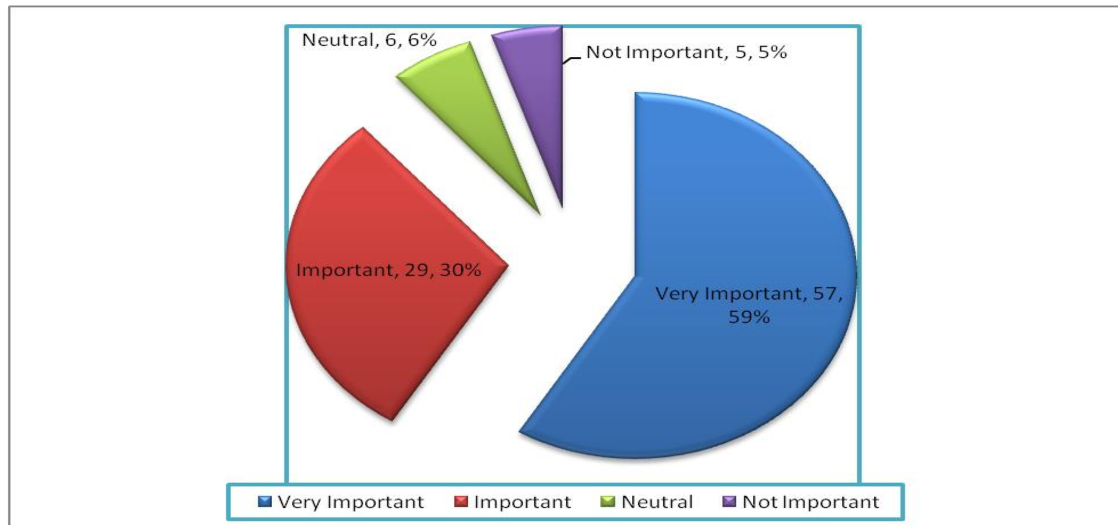


Figure 4.10: Stakeholders Involvement in the Decision Making
Source: Research Findings, (2023).

As captured in Figure 4.12 shown that 57(59.7%) respondents who were interviewed during the research study reported that it is very important to seek for opinions from the general public and other key stakeholders on the matter of improving the NHIF revenue collection, 29(30.9%) were agreed to engage stakeholders, 6(6.2%) somehow satisfied, 5(5.2%) reported not to see the important of engaging stakeholders in decision making. The findings imply that a good number of the respondents were strongly agreed to engage stakeholders from the early stage of improving the revenue collection through the NHIF scheme services.

4.4.11 Suggestions to Improve Collaboration and Coordination between NHIF and Health

The respondents were asked to suggest the ways to improve NHIF collaborations with other healthy service providers in order to enhance the NHIF revenue collection

through the client's health scheme utilization. The findings are shown in Figure 4.13.

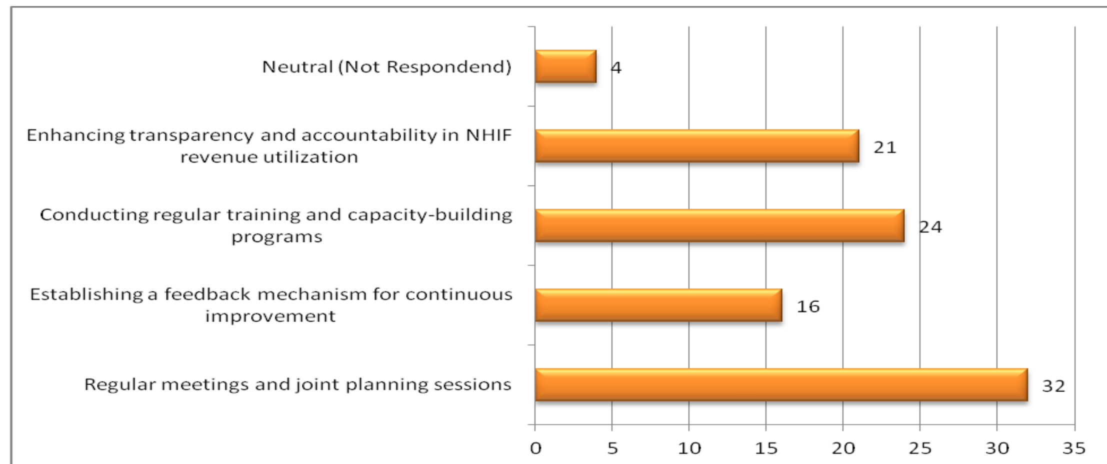


Figure 4.11: Suggestions to Improve Collaboration and Coordination between NHIF and Health
Source: Research Findings, (2023).

From the findings in Figure 11, A total number of 93 (95.9%) of the sample size provided their suggestions towards improving and enhancing the collaboration between NHIF and other key stakeholders including the health facilities. 32(34.4%) respondents who gave their feelings reported that having a regular meetings and joint planning sessions creating awareness on the availability of NHIF services among the healthcare providers. Another set of 24(25.8%) respondents pointed out that facilitating regular training and capacity-building programs should be made available at the accredited health facilities. Another 21(22.6%) mentioned Enhancing transparency and accountability in NHIF revenue utilization. The other 16(17.2%) reported that in order to improve customer care there is a need to establishing a feedback mechanism for continuous improvement.

4.5 Conclusion

This chapter discussed both the quantitative and qualitative data analysis and interpretation, with the use of frequencies, tables, figures and diagrams.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Overview

The study's conclusions and recommendations are presented in this chapter. The study findings and analysis are used to draw the conclusion. The goal was to fill a knowledge gap identified by reviewing existing studies. An attempt is made to make some recommendations, which include potential remedies and future study fields. These ideas are critical for enhancing NHIF revenue collection through the delivery of high-quality health care services.

5.2 Summary

The general objective is to assess the impact of National Health Insurance Fund Revenue on quality health services. Summary of findings from previous chapter was presented according to the three objectives of the study. Empirical studies review related to the topic of study was done. Mixed method sequential explanatory research design was adopted by the study. The targeted population for the study was 1038 beneficiaries of the NHIF scheme services and services providers including the NHIF and Dodoma Regional Referral Hospital staff from randomly selected six department and its sub-units at the facility level. The study use both probability and non-probability sampling methods at various stages to obtain the sample size of 97 patients and survives providers' respondents. Data were collected using a self-developed questionnaire, a standardize tool questionnaire and interview guides.

The study involved two phases of data collection. During the first phase, the researcher targeted a sample size of 80 patients with NHIF memberships as

respondents from six selected facility departments in Dodoma Regional Referral Hospital as commonly known as General Hospital. The 80 patients with NHIF memberships and patient's relatives were issued with questionnaires to fill. Out of 80 questionnaires issued, 68 questionnaires were returned duly filled. During the second phase of the data collection, 9 Health service providers and 29 patients with NHIF membership were interviewed. Similarly, 11 patients with the NHIF memberships and their relative's respondents who scored a mean above 63 for measures established for effective NHIF revenue collection for improvement of quality health services, established relationship between NHIF revenue collection and quality health of services and strategies were sampled from the 97 who had filled in the questionnaire and interviewed.

Quantitative data was organized, cleaned, coded, and entered into SPSS version 22 in a systematic manner. The coded data results were counted, tabulated, evaluated, and summarized. Thematic analysis was used to find underlying themes from the narratives of the participants by using narratives that will be analyzed thematically.

5.2.1 Community Awareness and Access to NHIF insurance Services

The study found that the majority78.4% of the respondents were aware of NHIF while 21.6% were not (Table 14). On the other hand, about 73.3% of respondents were members of the scheme while 24.7% were not, Indeed, 70 (72.2%) respondents who were aware of the NHIF were also members, while only 8 (8.2%) was not aware but joined the scheme. This implied that, the awareness is a pre-requisite for joining NHIF. However, 21 (21.6%) who were aware of NHIF did not join the scheme. The results suggested that although the awareness on the scheme was relatively high,

some households did not join the scheme due to some other reasons. Berkhout et al (2008) urged that, apart from awareness, other factors such as financial constraints and poor health services could prevent people from low income countries from joining Community Based Health Initiatives. Furthermore, the study found that 73 (73.3%) of respondents were satisfied with the services given by the NHIF plan, whereas 24 (24.7%) were dissatisfied.

In terms of gender, the survey results revealed that the gender composition of the sampled households is dominated by men. According to the findings, 81.4% of the studied homes were headed by men, while 18.6% were headed by women (Table 6). This composition is consistent with the baseline survey results, but it is lower than the Tanzania national population mean of 26.1% in 2022. Findings from the research study suggest that the majority of respondents would have additional responsibilities for their spouses and children if there is a low rate of widowed, widower, single, separated, divorced, and co-habiting among the participants from the household in the operation area. This could imply that married couples are more likely to benefit from the NHIF plan.

5.2.2 Challenges facing Communities when Accessing the NHIF Scheme Services

The study found that there were many challenges facing access to quality health care through the NHIF scheme that respondent's participants mentioned as indicated in Figure 2. Main challenges that most of the families in the study operation areas were Lack of awareness and understanding of NHIF policies and procedures (95.9%), Shortage of skilled healthcare professionals (93%), inadequate monitoring and

evaluation of NHIF funded programs(91.8%), Insuffient healthcare infrastructure and equipments (85.6%), Limited availability of essentials medical supplies and medications (80.4%), Inefficient utilization of NHIF funds (78.4%), Inadequate funding allocation from NHIF (50.4%) as well as Administrative and bureaucratic hurdles in NHIF reimbursement processes (48.5%).

5.2.3 Challenges Identification towards Accessing NHIF Scheme Services

The study found that most of the respondents indicated their perception towards challenges identification when visiting the health facilities: 94 (23.3%) mentioned the delayed access to the health care services, 92 (22%) identify the higher out-of-pocket expense for the patient, 87 (21%) decrease patient satisfaction and experience, 81 (19%) lower healthcare outcomes and health status and another 61(15%) cited the compromised adherence to clinical guidelines. These findings reveal that a majority of respondents who had an access the health-care services from the health facilities had delayed access to the health care services. That is why it had been easy to identify the major challenges when accessing the health care services through the insurance scheme when visit the health facilities despite owning the valid membership cards.

5.2.4 The Connection between Revenue Collection, Sources and Service Delivery

According to the data, 42 of the 97 respondents (43.3%) stated that the quality of service delivery is fairly, 29.9% well and good, 17.5% exceptional, and 9.3% poorly. The data also revealed that 53 (55%) of the 97 respondents strongly agreed that the service provision is moderate improved, 25% significantly improved, 12.2% were

not sure of any improvement and 8% disagreed that they had not noticeable any improvement. Availability of medical equipment and supplies if ensured its reliability can improve the source of revenue for the NHIF as one of the services offered at the health facilities, 22(22.7%) mentioned Quality and effectiveness of treatments and procedures; 18(18.6%) identified Patient satisfaction and overall experience and 13 (13.4%) mentioned Timely access to healthcare services while 8 (8.2%) adequate staffing and skilled healthcare professionals.

5.2.5 Strategies for Improving NHIF Revenue Collection

The findings revealed that 20% recommended the implementation of healthcare management systems suitable to ensure internal control systems, 18% advocated for strengthening quality healthcare services, 17% called for improving infrastructure and facilities while the other mentioned strategy is to enhance medical equipment and technology (12%). The findings revealed that increasing the number of healthcare professional and implementing healthcare management systems were a critical role in increasing revenue collection. It was announced that patient-centered treatment and communication will be improved then, followed implementing measures to reduce healthcare costs either directly or indirectly. Trying to strengthening collaboration between NHIF and healthcare providers, enhancing health education and awareness programs for the community and Promoting preventive healthcare initiatives were recommended several times as among strategies of optimizing the NHIF revenue collection.

5.2.6 Collaboration and Stakeholders Involvement in the Decision Making

Majority of the respondents, 57(59.7%) respondents reported that it is very important

to seek for opinions from the general public and other key stakeholders on the matter of improving the NHIF revenue collection, 29(30.9%) were agreed to engage stakeholders, 6(6.2%) somehow satisfied, 5(5.2%) reported not to see the important of engaging stakeholders in decision making. Improving and enhancing the collaboration between NHIF and other key stakeholders including the health facilities. 32(34.4%) respondents who gave their feelings reported that having a regular meetings and joint planning sessions creating awareness on the availability of NHIF services among the healthcare providers. Another set of 24(25.8%) respondents pointed out that facilitating regular training and capacity-building programs should be made available at the accredited health facilities. Another 21(22.6%) mentioned Enhancing transparency and accountability in NHIF revenue utilization.

5.3 Recommendations

Based on the findings of this study, the researcher makes the following recommendations for practice and for further research.

5.3.1 Timely Availability of NHIF Official at the health facility

This physical absence of NHIF officials affected clients' awareness of the operations of their health scheme. Therefore, NHIF advised to have a proper plan and strategies for the schedule of visiting the clients or beneficiaries, the reviews of benefit package and respond to challenges clients face from the registration to the utilization of health-care services.

5.3.2 Community Awareness through Sensitization Forums

Communities at all levels should be educated on the benefits of participating in

NHIF programmes. For example, they should be made aware that their membership payment results in successful and healthy service delivery.

5.3.3 Creating Digital Space for Online Registration of Membership

The NHIF service provider should ensure the creation of digital space for the online registration of membership. This will increase the pool of members hence improve the revenue collection.

5.3.4 Timely Payment of Service Claims

As it was pointed out by the healthy service providers, the delayed claim payment is negatively affecting the provision of quality health services. The NHIF should make every effort to pay claims promptly, this will empower the service providers to intensify the good work they are already doing and also redeem the image of the NHIF.

5.4 Suggestions for Further Research Study

This section recommends areas for future academics to investigate further on the impact of National Health Insurance Revenue on quality health services. These areas are as follows:- The National Health Insurance Fund (NHIF) implements various strategies, procedures, and plans to improve revenue collection through insurance scheme services to accredited hospital facilities; however, the situation remains alarming, necessitating further investigation to determine the root cause of the appalling unsatisfactory revenue collection for better and quality health service delivery. More research should be conducted to provide more knowledge on the issues of providing quality health care through the NHIF program services.

REFERENCES

Allotey, A. (2012). Financing Health Care in Ghana: Is One-Time Insurance Premium the Answer? Retrieved on 21st June, 2023 from; http://opinion.myjoyonline.com/pages/feature/201207/89468.phpZikmund.

Atagbuba, J. E. Ichoku, H. E & Fonta, W. M. (2008). Estimating the Willingness to Pay for Community Healthcare Insurance in Rural Nigeria. Poverty and Economic Policy Research Network PMMA Working paper, No. 10.

Berkhout, E and Oostingh, H. (2008). Health Insurance in Low-countries: Where is the evidence it works? Joint NGO Briefing Paper. Oxford, UK: Challenges: Cross-sectional Evidence. *Global Journal of Health Science*, 3(2).

Boateng, E. N., Aikins, M. & Board, F. A. (2016). Value and Service Quality Assessment of the National Health Insurance Scheme in Ghana: Evidence from Ashiedu Keteke District. *Value Health Reg Issues,* 10, 7-13.

Bultman, J., Kanywanywi, J. L. & Mtei, G. (2012). Tanzania Health Insurance Regulatory Framework Review. Final Report, Ministry of Health.

Carrin, G., Maria-Pia., Waelkens, M.P and Criel, B. (2005). Community-based health insurance in developing countries: a study of its contribution to the performance of health financing systems. *Tropical Medicine and International Health Journal,* 10(8), 799–811.

Creswell, J.W. (2014). *Research Design: International Students Edition. Qualitative, Quantitative and mixed methods Approaches,* 4th Ed., London: Sage Publications.

Cutler, M. D. (2002). Health Care and the Public Sector. National Bureau of Economic Research, Cambridge, Working Paper 8802.

Denis D. (2015). Tanzania National Health Insurance Fund Integrated Family Planning into its Rural Outreach Program. AFP.

Dutta, A. (2015). *Prospects for Sustainable Health Financing in Tanzania.* Washington, DC: Futures Group, Health Policy Project.

Erlangga, D., Suhrcke, M., Ali, S. & Bloor, K. (2019) The impact of public health insurance on health care utilization, financial protection and health status in low- and middle-income countries: A systematic review. *PLoS ONE* 14(8), e0219731.

Ghiselli, Edwin E., John P. Campbell, and Sheldon Zedeck. 1981. Measurement Theory for the Behavioral Sciences. San Francisco: W.H. Freeman.

Hand, D. J. (2004). *Measurement Theory and Practice.* London: Arnold Press.

Hannan, M. & Freeman, J. (1984). Structural Inertia and Organizational Change. *American Sociological Review,* 49(2)

Ho, A. (2015). Health Insurance. Centre for Applied Ethics, University of British Columbia, Vancouver, BC, Canada.

Joumard, I. & Andre, C. & Nicq, C. (2010). Health Care Systems: Efficiency and Institutions. OECD Economics Department Working Paper No. 769.

Kgokgwe, O. S. (2014). Assessing performance of Botswana's health insurance: the use of World Health Organization Health System Performance Framework. *International Journal of Health Policy Management,* 3, 179-189.

Kothari, C. R. (2004). *Research Methodology, Methods and Techniques.* New Delhi: New Age International Publishers.

Kothari, C. R. (2004). *Research Methodology: Methods and Techniques.* New Delhi: New Age International (p) Limited.

Kumar, A. S., Chen, L. C., Choudhury, M. & Gamju, S. (2011). Financing health care for all: challenges and opportunities. India.

Kumburu, P. N. (2015). National Health Insurance Fund in Tanzania as a Tool for Improving Universal Coverage and Accessibility to the Health Care Services: Cases from Dar es Salaam. Unpublished master dissertation, Mzumbe University, Morogoro, Tanzania.

Matunda, G. M. (2014). The function of national health insurance is a reality or illusion. Masters thesis, The Open University of Tanzania, Dar es Salaam, Tanzania.

MNT Editorial Team, (2016). Modern medicine started to emerge after the Industrial Revolution in the 18th century in Western Europe and the Americas.

Mtei G, Mulligan J: Community Health Funds in Tanzania: A literature review. 2007a, Ifakara Health Research and Development Centre, Dar es Salaam

Mtei, G. & Makawia, S. (2014). Universal Health Coverage Assessment in Tanzania Global Network for Health Equity, Ottawa Canada.

Musau. S. (1999). Community based health insurance: Experience and lessons learned from East and Southern Africa: Technical report No.34.

Nguyen, H. & Wang, W. (2013). The effects of free government health insurance among small children-evidence from the free care for children under six policy in Vietnam. *International Journal of Health Planning and Management,* 28 (1), 3–15.

Orodho, J. A. (2004). *Techniques of Writing Research proposals and Reports in education and social sciences.* Nairobi: Masda Publishers

Oso, W. K. & Onen, D. (2008). A General Guide to Writing Research Proposals and

Report. Makerere University, Kampala, Uganda.

Panpiemras, J. et al. (2011). Impact of Universal Health Care Coverage on patient demand for health care services in Thailand. Health policy (Amsterdam, Netherlands), 103(2–3), 228–235.

Savedoff, W. D., de Ferranti, D., Smith, A. L. & Fan, V. (2012). Political and economic aspects of the transition to universal health coverage. *Lancet* 380(9845), 924-932.

Sekaran, U. (2003). *Research methods for business: A skill building approaches*, 4th Ed., Hoboken, NJ: John Wiley and Sons.

Spaan, E. (2012). The impact of health insurance in Africa and Asia: a systematic review of impact of health insurance on resource mobilization, financial protection, service utilization, quality of care, social inclusion and community empowerment in low- and lower-middle-income countries in Africa and Asia.

Taherdoost, H. (2016). Sampling Methods in Research Methodology; How to Choose a Sampling Technique for Research, retrieved 0n 12th June, 2022 https://ssrn.com/abstract=3205035 or http://dx.doi.org/10.2139/ssrn.3205035.

Tesfaye, H. (2017). *Assessment of Utilization of Fee Waiver System among Beneficiaries in Addis Ababa, Ethiopia.* Addis Ababa: Addis Ababa University.

Whitney, C. W., Lind, B. K. & Wahl, P. W. (1998). Quality assurance and quality control in longitudinal studies. *Epidemiological Reviews,* 20(1), 71-80.

APPENDICES

Appendix I: Interview guide for NHIF Revenue Collection for quality service delivery

Introduction:

Dear Sir/Madame, ___________________________ is my name. I am conducting research on the impact of national health insurance fund income collection on quality health care in Tanzania: a case study of Dodoma regional referral hospital. As a result, I respectfully request that you volunteer to fill it out. Also, this questionnaire is exclusively for educational purposes, and any information gathered from responses will be kept discreetly.

Thank You Very Much

INSTRUCTIONS

- Tick the appropriate answer
- State where appropriate

SECTION A: STUDY AREA INFORMATION

1. Name of Village or Street lives____________________
2. Name of ward lives ______________________________
3. Name of District Coming from ____________________
4. Name of Region Coming from_____________________
5. Sex of respondent

    a. Male ☐ b. Female ☐

6. Age category of the respondent
    a) 18 – 25 Years ☐
    b) 26 – 35 Years ☐
    c) 36 – 55 Years ☐
    d) Above 56 Years ☐
7. What is your Marital Status?
    a) Single ( )
    b) Married ( )
    c) Divorced ( )
    d) Widowed ( )
    e) Co-habiting ( )
8. Are you attending or have been attended formal education?
    a) Yes ( ) b) No ( )
9. If yes, what is level of education?
    a) Primary School (standard) ( )
    b) Secondary School (form) ( )
    c) Diploma/Tertiary ( )
    d) Degree ( )
10. What is your occupation? Please state ______________________________
11. Indicate your religion/faith
    a) Catholic ( )
    b) Muslim ( )
    c) Protestant ( )
    d) Other state (Specify…………………………………)

SECTION B: EFFECTIVE UTILIZATION OF NHIF REVENUE

12. Are you using NHIF health insurances to access the healthy services?

    a) Yes ( ) b) No ( )

13. If No, skip the below question

14. If Yes, are you satisfying with the services delivery offered through the NHIF healthy cover?

    a) Yes ( ) b) No ( )

15. What are the challenges that trouble the utilization of NHIF revenue for enhancing the delivery of quality of health services? (Please tick all applicable options)

    a) Inadequate funding allocation from NHIF
    b) Insufficient healthcare infrastructure and equipment
    c) Shortage of skilled healthcare professionals
    d) Inefficient utilization of NHIF funds
    e) Limited availability of essential medical supplies and medications
    f) Lack of awareness and understanding of NHIF policies and procedures
    g) Administrative and bureaucratic hurdles in NHIF reimbursement processes
    h) Inadequate monitoring and evaluation of NHIF-funded programs

16. How do the challenges identified above affect the quality of health services provided in Dodoma Regional Referral Hospital? Please tick all applicable options.

    a) Delayed access to healthcare services
    b) Limited availability of specialized treatments and procedures

c) Decreased patient satisfaction and experience

d) Compromised adherence to clinical guidelines

e) Higher out-of-pocket expenses for patients

f) Lower healthcare outcomes and health status

g) Other (please specify): ______________________

17. In your opinion, which challenge has the most significant impact on utilizing NHIF revenue effectively to enhance the quality of health services? Please tick one option.

a) Inadequate funding allocation from NHIF

b) Insufficient healthcare infrastructure and equipment

c) Shortage of skilled healthcare professionals

d) Inefficient utilization of NHIF funds

e) Limited availability of essential medical supplies and medications

f) Lack of awareness and understanding of NHIF policies and procedures

g) Administrative and bureaucratic hurdles in NHIF reimbursement processes

h) Inadequate monitoring and evaluation of NHIF-funded programs

i) Other (please specify): ______________________

18. How do you think the identified challenges can be addressed to improve the utilization of NHIF revenue and enhance the quality of health services? Please tick all applicable options.

a) Increase funding allocation from NHIF to Dodoma Regional Referral Hospital

b) Invest in improving healthcare infrastructure and equipment

c) Recruit and retain more skilled healthcare professional

d) Improve transparency and accountability in NHIF fund utilization

e) Strengthen supply chain management for medical supplies and medications

f) Conduct awareness campaigns and provide education on NHIF policies and procedures

g) Streamline administrative processes for NHIF reimbursement

h) Implement robust monitoring and evaluation mechanisms for NHIF-funded programs

SECTION C: MEASURES FOR EFFECTIVE NHIF REVENUE COLLECTION

19. What measures can be implemented to enhance the effective collection of NHIF revenue for the improvement of quality health services in Dodoma Regional Referral Hospital? Please tick all applicable options.

a) Strengthening NHIF revenue collection systems and processes

b) Improving transparency and accountability in NHIF revenue management

c) Enhancing public awareness about NHIF and its benefits

d) Implementing robust monitoring and evaluation mechanisms for NHIF revenue collection

e) Strengthening collaboration between NHIF and healthcare providers for revenue collection

f) Streamlining NHIF reimbursement procedures for healthcare services

g) Encouraging timely payment of NHIF contributions by beneficiaries

h) Implementing measures to reduce fraud and abuse of NHIF funds

i) Other (please specify): ________________________

20. In your opinion, which measure would have the most significant impact on effective NHIF revenue collection for the improvement of quality health services? Please tick one option.

    a) Strengthening NHIF revenue collection systems and processes

    b) Improving transparency and accountability in NHIF revenue management

    c) Enhancing public awareness about NHIF and its benefits

    d) Implementing robust monitoring and evaluation mechanisms for NHIF revenue collection

    e) Strengthening collaboration between NHIF and healthcare providers for revenue collection

    f) Streamlining NHIF reimbursement procedures for healthcare services

    g) Encouraging timely payment of NHIF contributions by beneficiaries

    h) Implementing measures to reduce fraud and abuse of NHIF funds

    i) Other (please specify): ________________________

21. How do you think the implementation of effective NHIF revenue collection measures would contribute to the improvement of quality health services in Dodoma Regional Referral Hospital? Please tick all applicable options.

    a) Increased availability of medical equipment and supplies

    b) Enhanced capacity for healthcare infrastructure development and

maintenance

c) Recruitment and retention of skilled healthcare professionals

d) Improved access to specialized treatments and procedures

e) Higher patient satisfaction and experience

f) Enhanced adherence to clinical guidelines

g) Lower out-of-pocket expenses for patients

h) Other (please specify): ______________________

SECTION D: ESTABLISH THE RELATIONSHIP BETWEEN NHIF REVENUE COLLECTION AND QUALITY HEALTH OF SERVICES IN DODOMA REGIONAL REFERRAL HOSPITAL

22. How would you rate the current quality of health services provided at Dodoma Regional Referral Hospital? Please tick one option.

    a) Excellent ( )

    b) Good ( )

    c) Fair ( )

    d) Poor ( )

23. Are you aware of the role of NHIF revenue in supporting the provision of health services at Dodoma Regional Referral Hospital? Please tick one option.

    a) Yes ( ) b) No ( )

24. Do you believe that adequate NHIF revenue collection can contribute to the improvement of quality health services in Dodoma Regional Referral Hospital? Please tick one option.

    a) Strongly Agree ( )

b) Neutral ( )

c) Disagree ( )

d) Strongly Disagree ( )

25. In your experience, have you observed any improvements in the quality of health services at Dodoma Regional Referral Hospital since the implementation of NHIF revenue collection? Please tick one option.

a) Yes, significant improvements ( )

b) Yes, moderate improvements ( )

c) No, no noticeable improvements ( )

d) Not sure ( )

26. From your perspective, which areas of health services do you believe NHIF revenue collection has the most impact on? Please tick all applicable options.

a) Availability of medical equipment and supplies

b) Adequate staffing and skilled healthcare professionals

c) Timely access to healthcare services

d) Quality and effectiveness of treatments and procedures

e) Patient satisfaction and overall experience

f) Other (please specify): ________________________

27. Do you think there is a need for better coordination and collaboration between NHIF and Dodoma Regional Referral Hospital to enhance the utilization of NHIF revenue for quality health services? Please tick one option.

a) Yes ( ) b) No ( ) c) Not sure ( )

SECTION E: STRATEGIES AND RECOMMENDATIONS FOR OPTIMIZING THE IMPACT OF NHIF REVENUE COLLECTION ON THE QUALITY OF HEALTH SERVICES IN DODOMA REGIONAL REFERRAL HOSPITAL

28. Please select the strategies you believe would optimize the impact of NHIF revenue collection on the quality of health services in Dodoma Regional Referral Hospital:
    a) Improving healthcare infrastructure and facilities
    b) Enhancing medical equipment and technology
    c) Increasing the number of healthcare professionals
    d) Implementing effective healthcare management systems
    e) Strengthening healthcare quality assurance and monitoring
    f) Other (please specify): ________________
29. Do you have any additional recommendations for optimizing the impact of NHIF revenue collection on the quality of health services in Dodoma Regional Referral Hospital?
    a) Enhancing health education and awareness programs for the community
    b) Promoting preventive healthcare initiatives
    c) Improving patient-centered care and communication
    d) Strengthening collaboration between NHIF and healthcare providers
    e) Implementing measures to reduce healthcare costs and improve cost-effectiveness
    f) Other (please specify): ________________
30. In your opinion, what are the key challenges or barriers that need to be addressed to optimize the impact of NHIF revenue collection on the quality

of health services in Dodoma Regional Referral Hospital?

a) Insufficient funding allocation for healthcare services
b) Limited availability of essential medical supplies and medications
c) Inadequate infrastructure and equipment maintenance
d) inefficient utilization of NHIF revenue within the hospital
e) Lack of coordination and communication between NHIF and healthcare providers
f) Other (please specify): _______________

31. How important do you think it is to involve stakeholders (e.g., NHIF, hospital management, healthcare professionals, community representatives) in the decision-making process to optimize the impact of NHIF revenue collection on the quality of health services?

a) Very important ( )
b) Important ( )
c) Neutral ( )
d) Not important ( )
e) Not sure ( )

32. What specific actions or initiatives do you suggest to enhance the collaboration and coordination between NHIF, Dodoma Regional Referral Hospital, and other stakeholders for optimizing the impact of NHIF revenue collection on the quality of health services?

a) Regular meetings and joint planning sessions
b) Establishing a feedback mechanism for continuous improvement
c) Conducting regular training and capacity-building programs

d) Enhancing transparency and accountability in NHIF revenue utilization

e) Other (please specify): _______________

..........................Thank you so much for your cooperation...............................

Appendix II: Focus group discussion guide (FGD Guide)

1. Describe the current status of NHIF insurance on delivering quality health services in your Dodoma Referral Hospital
2. From your experiences in this hospital is it common for clients (community to seek for quality health services through the NHIF?
3. What are the perceptions of other non NHIF members when seeking quality health services?
4. Can you explain how health service providers motivate or discourage health seeking practices among NHIF?
5. Based on your experiences what are the challenges that troubles NHIF insurance on delivering quality health services in your Dodoma Referral Hospital
6. What are the major sources of problems that affect access to quality health services through NHIF strategies
7. Can you share your experiences on how frequent does clients discuss access to quality health through the NHIF
8. Do you think how clients in this community are well informed about NHIF on accessing the health services?
9. What strategies do you suggest to improve the delivery of quality health services in your community through the NHIF

MWANAISHA HASSAN MUSTAPHER
Research Candidate for the Masters Program
The Open University of Tanzania
P. O. Box 23409
Dar es Salaam, Tanzania

29 August, 2023

MEDICAL OFFICER INCHARGE
DODOMA REGIONAL REFERRAL HOSPITAL
BOX 904 DODOMA

RE: PERMISSION TO BE ALLOWED TO COLLECT DATA IN YOUR ESTEEMED HEALTH FACILITY

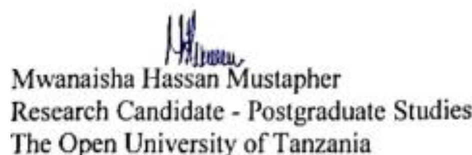
Reference is made upon the above heading

I am a postgraduate student at the Open University of Tanzania, pursuing a Masters degree of Monitoring and Evaluation. I am carrying out a study on Assessing the "Impact of NHIF Revenue collection on quality service delivery in Dodoma, Tanzania". Your facility was randomly selected among the 28 Regional Referral Hospital in Tanzania to take part in the study during the sampling technique procedures.

The respondents for the study will be 97 including the patients receiving the services through the NHIF scheme services as well as their guidance and NHIF service providers who will be at the facility.

Kindly, allow me to collect the data in your institution which will be used for this research study. The shared information will be treated with utmost confidentiality and anonymity since it is meant for research purpose only. Attached are copies of relevant research permits from OUT required for a student to collect data. Thank you

Yours faithfully



Mwanaisha Hassan Mustapher
Research Candidate - Postgraduate Studies
The Open University of Tanzania

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF HEALTH

Telegram: "Afya" DODOMA
Tel. No:: +255 026 23223267
(All letter should be written to Permanent Secretary)

Dodoma Regional Referral Hospital,
P. O. BOX 904,
DODOMA.

Ref.No.EB.229/254/01A/130 **13th September, 2023**

Mwanaisha Hassan Mustapher,
Research Candidate for the Masters Program,
The Open University of Tanzania,
P.O. Box 23409
DAR ES SALAAM.

RE: RESEARCH AUTHORIZATION

Following your application for the authority to carry out research on "Assessing the Impact of National Health Insurance Fund Revenue Collection on quality health service delivery in Dodoma Regional Referral Hospital, Tanzania" I am pleased to inform you that you have been authorized to undertake research in the health facility (General Hospital) for the period ending 15th December, 2023.

You are advised to report to the Medical Doctor Incharge and the Director of Hospital of the Dodoma Regional Referral Hospital, Tanzania before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the OUT to conduct research in Tanzania, you shall deposit a copy of the final research report to the Hospital Management within one year of completion. The soft copy of the same should be submitted through the online formal communication of the health facility.

Dr. IBENZI Ernest
MEDICAL OFFICER INCHARGE
DODOMA REGIONAL REFERRAL HOSPITAL

Copy to: (1) Prof. Deus Dominic Ngaruko - DVC
(2) Dr. Timothy Lyanga - Research Supervisor

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF HEALTH

Telegram: "Afya" DODOMA
Tel. No:: +255 026 23223267
(All letter should be written to Permanent Secretary)

Dodoma Regional Refer
Hospit
P. O. BOX 9
DODOM

Ref.No.EB.229/254/01A/130 **13th September, 2023**

Mwanaisha Hassan Mustapher,
Research Candidate for the Masters Program,
The Open University of Tanzania,
P.O. Box 23409
DAR ES SALAAM.

RE: RESEARCH AUTHORIZATION

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Dr. IBENZI Ernest
MEDICAL OFFICER INCHARGE
DODOMA REGIONAL REFERRAL HOSPITAL

Copy to: (1) Prof. Deus Dominic Ngaruko - DVC
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