ASSESSING EQUITY IN ACCESS TO HEALTHCARE UNDER THE NATIONAL HEALTH INSURANCE SCHEME IN GHANA

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DECLARATION

I do hereby declare that the thesis titled "ASSESSING EQUITY IN ACCESS TO HEALTHCARE UNDER THE NATIONAL HEALTH INSURANCE SCHEME IN GHANA" submitted for the award of Doctor of Philosophy in Public Health at Selinus University of Sciences and Literature, Faculty of Business and Media is my original work.

I hereby declare that all the information has been written according to all aspects of publication ethics. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material that are not original to this work.

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DEDICATION

I dedicate this academic work to my wonderful family for their support and encouragement throughout my studies: Vera Omane-Adjekum my wife, and Nicole, Nigel and Nyla Omane-Adjekum my children.

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I offer my heartfelt gratitude to God Almighty for granting me the strength, wisdom, and tenacity to be able to complete this research. His direction and abundant grace have been my motivation throughout this academic endeavour, and I am forever grateful for His unfailing blessings.

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ABSTRACT

The study aims to assess equity in access to healthcare under the National Health Insurance Scheme (NHIS) in Ghana. A mixed-methods design was used, and both quantitative and qualitative data collection strategies were employed. A scaled questionnaire was administered to gather quantitative data from 300 users of NHIS, and an interview guide was used to collect qualitative data from 15 NHIS staff and hospital managers. The Quantitative data were analyzed using descriptive and inferential tests, and thematic analysis was used to analyze the qualitative data. The study concluded that NHIS has significantly improved the adequacy and availability of access to healthcare services, particularly primary healthcare and maternal healthcare. Beneficiaries have access to a range of healthcare providers, including specialist services where necessary, and essential medications are readily accessible, improving treatment and patient outcomes. Financial access to healthcare has improved under the NHIS, minimizing the burden of direct costs to beneficiaries. The study concluded that NHIS beneficiaries perceive the quality of healthcare to be satisfactory on key dimensions such as reliability, responsiveness, and competence of healthcare providers. Inequalities, however, persists, with urban-based beneficiaries having access to more comprehensive services and healthcare providers compared to rural-based beneficiaries. The study also found that access to healthcare under the NHIS is inequitable as it was influenced by sociodemographic factors, with older people and lower income individuals facing more challenges than educated beneficiaries in navigating the system. Further, the findings revealed that NHIS implementation is also beset with financial constraints, administrative inefficiencies, and misunderstandings regarding the covered benefits under the scheme, leading to dissatisfaction and informal co-payments. The study suggests that the scheme should improve financial planning, improve reimbursement tariffs, and implement intensive public education.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The cost of healthcare has long been a barrier to accessing essential health services, particularly in developing countries where out-of-pocket expenses can be prohibitively high. Such a financial burden typically results in a high rate of individuals lacking necessary medical services, escalating health inequities and hindering overall development (World Health Organization, 2024). In an attempt to put an end to the long-existing issue, many countries have been undertaking efforts whose goal is the achievement of Universal Health Coverage (UHC) so that everyone receives the needed health services without financial hardship (Kutzin, 2013).

Noting the enormous barrier posed by healthcare costs, particularly in developing countries, Ghana has made the fortification of its healthcare financing arrangement a fundamental strategy towards the achievement of Universal Health Coverage (UHC). Healthcare financing involves the mechanisms by which monies are mobilized, pooled, and managed to enable all people to access basic health services without incurring financial adversity (Fan and Savedoff, 2014). In Ghana, this has come to involve a pooling together of public and private sources of funds with the vision of pooling resources and spreading financial risks across the citizenry. In doing so, it ensures that healthcare costs do not disproportionately fall on individuals, particularly the vulnerable and poor. By providing a structured arrangement of resource mobilization and resource allocation, the financing system reins in out-of-pocket payments, which account for one of the biggest barriers to healthcare access (Kutzin, 2013). Through the use of a plurality of sources of funds, including taxation, insurance premiums, and donor grants, Ghana's healthcare financing arrangement underpins the sustainability and equity of its healthcare system, enabling the availability of financial resources with which to provide for the

health needs of the whole citizenry. This strategy remains at the very center of the country's attempts to reduce health inequities and improve overall health outcomes, making healthcare financing the pivot of its health policy framework (Jehu-Appiah et al., 2011).

Ghana, in an attempt to improve equitable access to healthcare, has instituted the National Health Insurance Scheme (NHIS) (Witter et al., 2007). The scheme is a major move towards addressing the disparity in access to healthcare by providing an avenue through which the population will be able to obtain medical care without direct financial expense (National Health Insurance Authority, 2020). The National Health Insurance Scheme (NHIS) of Ghana was introduced in 2003 as a major reform to improve the accessibility and affordability of healthcare for its citizens. It was introduced under the National Health Insurance Act, 2003 (Act 650), which was subsequently repealed by Act 852 of 2012, to provide it with a more robust regulatory framework (Agyepong & Adjei, 2008). The scheme is managed by the National Health Insurance Authority (NHIA), which coordinates its implementation and ensures that it is in conformity with regulatory stipulations (Blanchet, Fink, & Osei-Akoto, 2012). NHIS is supposed to cover a broad health service range and is funded through a combination of premiums, government subsidy, and a special health insurance levy (Jehu-Appiah et al., 2010). Its roll-out strategy involves the enrollment of citizens into various health insurance schemes operated by accredited service providers, thereby providing access to healthcare services across the country (National Health Insurance Authority, 2020).

Despite its achievements, the NHIS also faces some challenges. Some of the challenges are issues of financial sustainability, whereby the scheme is plagued by poor financing and late payments to the health care providers (Agyepong & Adjei, 2008). There are also issues of inefficiencies and corruption in the system which undermine its effectiveness (Kusi et al., 2015). The unequal distribution of the health care facilities and professionals is also a major challenge to the achievement of equitable healthcare access (Sarpong et al., 2010).

The NHIS has been critical in increasing access to healthcare and eliminating financial barriers for a great majority of Ghanaians, resulting in better health outcomes and increased utilization of healthcare (Blanchet et al., 2012). The scheme is, however, faced with numerous implementation challenges, including financial sustainability, administrative inefficiencies, and inequitable access to services (Agyepong & Adjei, 2008). Despite these challenges, the NHIS remains a very critical pillar of Ghana's healthcare system. The goal of this study is to assess equity in access to healthcare under the National Health Insurance Scheme in Ghana.

1.2 Statement of the Problem

The National Health Insurance Scheme (NHIS) of Ghana has been confronted with numerous challenges since its implementation. Financial sustainability is a major issue, as the scheme is frequently confronted with insufficient funding and late payments to healthcare providers, potentially undermining service delivery (Agyepong & Adjei, 2008). Inefficiency and corruption within the system are also concerns, weakening its effectiveness (Kusi et al., 2015). The unequal distribution of healthcare facilities and professionals aggravates the situation, especially in rural communities where access to healthcare is still limited (Sarpong et al., 2010). Despite repeated attempts to revamp the system, these challenges have remained, and this calls for a more holistic assessment of the NHIS.

The myriad of challenges confronting the NHIS has made research into different facets of the scheme inevitable. Nonetheless, the evidence from existing studies is not exhaustive. Most studies have mainly touched on financial issues, including capitation payments and the financial sustainability of the scheme (Wang et al., 2011; Dalinjong & Laar, 2012). Research exploring the equity of access to healthcare services for NHIS enrollees, a key dimension of assessing the effectiveness of the scheme, is lacking. This literature gap makes it imperative to more closely investigate how fairly healthcare services are distributed across the population covered by NHIS.

Earlier research has also questioned the reasons underlying the low total enrollment in the NHIS, citing factors like unaffordability of the premiums, perception of poor healthcare quality, and perceptions of the benefit package being inadequate due to the exclusion of some drugs and treatments (Akazili et al., 2017, Atinga et al., 2015, Dixon et al., 2013). These studies have given limited consideration to the fairness of access to services among individuals who are enrolled. This gap leaves much to be understood in terms of how well the NHIS is implementing its objective to provide universal health coverage equitably to various population groups and across regions.

Moreover, there has been some studies that have focused exclusively on the quality of healthcare provided under the NHIS (Fenny et al., 2014; Ayimbillah-Atinga, 2012). As vital as quality is, such a focus overlooks the equally pertinent question of whether all citizens are able to access the services equally. The focus on the quality of healthcare without an equal exploration of access equity creates a pertinent gap in the literature, since the ultimate test of the scheme's success is in both the quality of care that is offered and in the accessibility of the care to all who are insured.

As a result of the above gaps in the existing literature, this current study is set to evaluate equity in healthcare access under the National Health Insurance Scheme in Ghana. The study, therefore, attempts to present an assessment of the extent to which the NHIS is achieving its goal of promoting equitable healthcare access to all Ghanaians by addressing financial, physical, and service access aspects.

1.3 Research Objective/Aim

The general aim of the study is to assess equity in access to healthcare under the National Health Insurance Scheme (NHIS) in Ghana.

1.3.1 Specific Objectives

i. To evaluate whether individuals with different sociodemographic statuses have equitable access to healthcare services under the NHIS in Ghana.
ii. To evaluate the adequacy and availability of healthcare services covered by the NHIS, focusing on specialized care and essential medications.
iii. To evaluate the satisfaction of NHIS beneficiaries with the healthcare services they receive.
iv. To identify and analyze the key challenges faced in the implementation and operation of the NHIS, including financial sustainability and administrative efficiency.
v. To examine the quality of healthcare services received by NHIS beneficiaries across different regions in Ghana.

1.4 Research Questions

i. Do individuals with different sociodemographic statuses have equitable access to healthcare services under the NHIS in Ghana?
ii. Are the healthcare services covered by the NHIS adequate and available, particularly concerning specialized care and essential medications?
iii. How satisfied are NHIS beneficiaries with the healthcare services they receive?
iv. What are the key challenges faced in the implementation and operation of the NHIS, including financial sustainability and administrative efficiency?
v. What is the quality of healthcare services received by NHIS beneficiaries in Ghana?

1.5 Significance of the Study

This study is of immense academic significance as it contributes empirical findings to the research on access to healthcare under Ghana's National Health Insurance Scheme (NHIS). It presents a systematic evaluation of determinants of financial access, sufficiency of services,

and inequalities among the beneficiaries, contributing to the research on health policy and insurance schemes in developing countries. Academically, this study bridges knowledge gaps by providing a comprehensive analysis that can inform research agendas and theoretical foundations on healthcare equity and policy implementation in the future.

At a practical level, the findings of this study offer useful insight for practitioners and healthcare providers operating under the NHIS scheme. With a clear understanding of the specific challenges and disparities in access to healthcare uncovered through this research, healthcare facilities can be informed on how to rationalize service delivery and resource allocation. Practitioners can utilize these findings to improve patient care efforts, enhance quality of service, and eliminate systemic inefficiencies that compromise the delivery of equitable healthcare under the NHIS.

From a policy standpoint, this research offers essential evidence to guide policy-makers and stakeholders in healthcare reform in Ghana and comparable settings. It highlights major challenges in NHIS implementation, including financial sustainability and administrative efficiency, to allow policymakers to formulate targeted interventions to enhance the scheme's performance. Policy prescriptions emanating from this research can aid in efforts to expand healthcare access, decrease inequities, and help the NHIS realize its objective of universal health coverage for all Ghanaians.

1.6 Scope of the Study

This study is aimed at examining equity in access to healthcare under Ghana's National Health Insurance Scheme and will be conducted entirely within Ghana's Greater Accra Region. It entails the measurement of determinants of financial access, examination of service sufficiency, and investigation of inequalities among NHIS beneficiaries. With a specific focus on this region, the study aims at generating localized data on healthcare delivery under the

NHIS system, with a view to making context-specific recommendations on how best to promote healthcare equity and policy implementation.

1.7 Organisation of the study

This study is presented in five chapters for easy reading and comprehension. Chapter 1 presents the background to the study, objectives, significance, scope, and organization of the study. Chapter 2 presents a comprehensive review of literature related to healthcare access under the National Health Insurance Scheme (NHIS) in Ghana. Chapter 3 presents the study methodology, including the study design, data collection process using structured questionnaires, and data analysis procedures. Chapter 4 presents the findings of the study, analyzing determinants of financial access, measuring service adequacy, and ascertaining disparities among NHIS beneficiaries in the Greater Accra Region. Chapter 5 concludes by discussing the findings, policy and practice implications, study limitations, and recommendations for future research directions.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides a critical literature review pertinent to the research on equity access to healthcare under the National Health Insurance Scheme (NHIS) in Ghana. The review critically assesses and analyzes existing studies, focusing on concepts and related issues, theoretical underpinnings, and empirical evidence. The chapter is divided into three broad sections: the first section reviews significant concepts and issues related to equity in healthcare access under the NHIS; the second section discusses the theoretical underpinnings that inform the study, viz. utilitarianism, libertarianism, and egalitarianism; and the final section provides an empirical review of existing studies, highlighting gaps which this study seeks to address. This literature review constitutes the foundation for understanding the state of research on NHIS and informs the analysis provided in the subsequent chapters of the research.

2.2 Review of Concepts and Related Issues

This chapter provides a detailed review of concepts and key issues pertaining to an understanding of equity in access to healthcare under the National Health Insurance Scheme (NHIS) in Ghana. The chapter begins with an overview of Ghana's health system, its evolution, and reforms that have shaped the current system. The review continues with an exposition of the various health sectors in Ghana, the roles of the public and private sectors in healthcare delivery, and universal health coverage (UHC) in Ghana. The chapter also covers the evolution of healthcare financing, the funding challenges of the health system, and a detailed overview of the NHIS, its history, legal framework, types of insurance, accreditation, and benefits and challenges of its implementation. Furthermore, the review covers healthcare outcomes under NHIS, the situation of equity in healthcare, and the connection between NHIS and equitable

access to healthcare. The chapter concludes by analyzing the dimensions of equity access, quality of healthcare under NHIS, patient satisfaction, and various factors that can affect equitable access to healthcare services in Ghana. The review sets the background for an understanding of the general context and specific problems that this study aims to explore.

2.2.1 Overview of the Ghanaian Health System

2.2.1.1 History and Development of the Health Status in Ghana

The evolution of the health system in Ghana is a history that starts well before modern interventions, with traditional practices well rooted in the cultural setting of various ethnic groups. Before the colonial era, health care was predominantly traditional, offered by herbalists and traditional healers who were central players in the healthcare delivery of their communities. Western medicine was introduced with European colonization, along with formal medical practice and facilities, such as hospitals and clinics that laid the basis for an organized health system (Patterson, 1979).

After independence, under Kwame Nkrumah, Ghana embarked on transforming its health sector as part of broader social welfare reforms. In this period, there was a rise in health facilities and professional training schools nationwide. The aim was to extend health service coverage to urban as well as rural areas, reflecting a commitment to improving public health outcomes across the country (Nyonator & Kutzin, 1999).

By the close of the 20th century, it was apparent that the mounting pressures on the health system called for a series of reforms to enhance the quality of the delivery of services and to utilize resources more efficiently. Among the most important reforms was the decentralization of the management of health in the 1980s, which transferred significant responsibilities to district health authorities. This was designed to facilitate the health system to respond better to the particular needs of the population at the local level (Asenso-Okyere et al., 1998).

The 1990s also witnessed further reforms aimed at increasing the financial viability of the health sector. Reforms included the introduction of the "cash and carry" system whereby services were paid for on the point of delivery. While the system was intended to reduce financial constraints on health facilities, it had the unintended effect of raising barriers to access for the very poor sections of society, illustrating the complex interface between health policy and equity (Witter & Garshong, 2009).

As the 21st century unfolded, Ghana's health system also evolved, driven by both local dynamics and global health agendas. Health care delivery reforms have been marked by recurring challenges such as funding deficits, health workforce limitations, and the burden of disease. The public health sector, historically the backbone of Ghanaian healthcare, has been augmented progressively by the private sector, which has expanded to deliver a variety of health services, thereby widening the health service delivery landscape (Issaka, 2018).

2.2.1.2 Ghana's Health Sector Reforms

Since gaining independence in 1957, Ghana has undertaken a series of health sector reforms aimed at enhancing the efficiency, accessibility, and quality of health service provision. The initial large-scale wave of reforms was initiated in the early post-independence era under President Kwame Nkrumah, where there was a foundation of modern healthcare in Ghana established through the construction of new health facilities and hospitals across the country. These were set out to eradicate malaria and tuberculosis, which were prevalent at the time (Nyonator & Kutzin, 1999). Despite all these advancements, the health system still grappled with issues linked to poor infrastructure as well as inadequate trained health professionals.

In the 1970s and 1980s, additional reforms were made to address these long-standing issues. The government initiated the decentralization of health services with the expectation of improving the delivery of services by making health systems more responsive at the local level.

This was complemented by the development of the Primary Health Care (PHC) approach in the late 1970s, following the Alma-Ata global declaration, which emphasized health equity. The PHC approach was aimed at providing accessible, affordable, and available health services to all individuals, with the focus on preventive rather than curative health interventions (Asenso-Okyere et al., 1998).

By the 1990s, financial barriers had become a significant obstacle to accessing healthcare, and the "cash and carry" system was introduced. Patients paid for health services in advance, but this unfortunately limited access to health services for the poorest of the poor. The failure of this system was evident as it heightened health inequities and led to countrywide public unrest. The government later introduced the National Health Insurance Scheme (NHIS) in 2003 in a bid to do away with the cash and carry system and achieve more equitable health cover. The NHIS was formulated to ensure a more equitable health financing system and has been crucial in increasing the use of health services countrywide (Agyepong & Adjei, 2008).

In spite of the initial success of the NHIS in expanding access to healthcare services, the scheme has experienced a number of challenges, such as problems with sustainability, coverage, and quality of care. Shortfalls in funding and delays in reimbursement to healthcare providers have impacted the quality of services provided under the NHIS. Additionally, the scheme has been plagued by fraud and mismanagement that have eroded public confidence and the efficiency of the system (Witter & Garshong, 2009).

Recent reforms have aimed at strengthening the NHIS and overcoming these challenges. There have been efforts to make the scheme more financially sustainable by raising premium contributions and changing the way funds are managed. There have also been efforts to increase coverage and bring in a broader set of services, including coverage for non-communicable diseases, which are becoming more common. Policies have also been implemented to enhance

the regulation and accreditation of healthcare providers to increase the quality of care provided under the NHIS (Issaka, 2018).

2.2.1.3 Health Sectors in Ghana

The Ghana health industry involves private and public stakeholders who jointly deliver healthcare services to the country. The Ministry of Health (MoH) and the Ghana Health Service (GHS) dominate the public sector. The MoH formulates health policy, resources, and oversees the health sector in general, while the GHS executes the policies and offers public health and clinical services in its large network of health facilities. The private sector, ranging from private clinics to hospitals, and non-governmental organizations (NGOs), complements the public sector through further provision of healthcare services, such as specialist healthcare services and closing gaps in the public health sector. Explanatory detail of the activities and contribution of the major stakeholders is presented below.

2.2.1.3.1 Ministry of Health (Public Sector)

The Ministry of Health (MoH) of Ghana is the main government body accountable for the development of health policies, coordination of health services, and promotion of public health in Ghana. The MoH mission is the delivery of equitable and accessible comprehensive health services to all Ghanaians for better overall health status and minimization in health disparities within the population. The ministry has a structured organization for greater effectiveness, accountability, and coordination with other bodies involved in health (Ministry of Health Ghana, 2023).

- **Role and Responsibilities**

The Ministry of Health has a central role in the development and execution of national health policies and strategies in the health sector. The policies span health promotion, disease prevention, and the provision of healthcare. The ministry also develops standards and

regulations in healthcare delivery aimed at promoting quality and safety in all health facilities (Ministry of Health Ghana, 2023).

Among the most important roles of the MoH is coordinating the activities of the different health agencies and organizations towards harmonized and cohesive provision of healthcare. These include coordination with public, private, and non-governmental organizations to make healthcare services not only available, but also accessible to all segments of the population. The MoH also coordinates training and development of health professionals to have an effective and competent workforce to meet the health needs of the nation (Asenso-Okyere et al., 1998).

Furthermore, the Ministry of Health is responsible for the distribution of resources in the health sector. These involve budgeting and funding of health programs, procurement of medical supplies, and fair distribution of health resources throughout the country. Effective management of the resources enables the MoH to reduce the inequalities in access to health care and enhance health outcomes (Witter & Garshong, 2009).

- **Ministry of Health Structure**

The structural organization of the Ministry of Health is crafted in a way to ensure effective administration and coordination of health services at the national level. Figure 2.1, as shown, is led by the Minister of Health, who is assisted by a Deputy Minister and a Chief Director. The Chief Director is responsible for the daily running of the ministry and the effective implementation of the minister's policies and directives (Ministry of Health Ghana, 2023).

The MoH is structured into directorates and units that oversee different areas of health administration. Some of the most critical units are the Internal Audit Unit, Legal Affairs Unit, Public Relations Unit, and Client Service Unit. The units provide critical support services that

ensure transparency, compliance with the law, citizen engagement, and seamless delivery of services in the ministry (Ministry of Health Ghana, 2023).

At the core of the ministry's structure are the various directorates and their functions. The Policy, Planning, Budgeting, Monitoring, and Evaluation Directorate (PPBM&E) develops health policies, plans sector activities, and monitors and evaluates health programmes. The directorate ensures that health policies are based on evidence and aligned with national health goals (Asenso-Okyere et al., 1998).

The Directorates constituting the Technical Coordination include Medical and Dental, Pharmacy, Nursing and Midwifery, Public Health and Health Promotion, and Allied Health. These sub-units deal with the technical and professional aspects of health care delivery to make certain that the health services are of acceptable quality and are aligned with professional standards (Witter & Garshong, 2009).

The Traditional and Alternative Medicine Directorate integrates and regulates traditional and alternative medicine within the national health system. It makes sure that the traditional practices are safe and effective, and augment modern medical practice (Ministry of Health Ghana, 2023).

The Infrastructure Directorate, Human Resource Management Directorate, and Procurement and Supply Chain Directorate play a critical role in providing support to the operational requirements of the health system. They oversee the management of health infrastructure projects, human resource planning and development, and the procurement of medical supplies and equipment, respectively.

Research, Statistics, and Information Management Directorate is responsible for collecting and analyzing health data to support policy-making. The directorate also oversees health

information systems, to ensure quality and timely data is accessible for decision-making (Ministry of Health Ghana, 2023).

General Administration Directorate and Finance Directorate provide the major support services such as financial management, accounting, general stores, records management, and security. These directorates ensure that the ministry is operating effectively and that resources are being managed prudently (Ministry of Health Ghana, 2023).

- **Collaboration with Agencies**

The Ministry of Health collaborates with other agencies that address health matters to realize its goals. Some of the agencies are the Ghana Health Service, Teaching Hospitals, the Centre for Plant Medicine Research, the Food and Drugs Authority, the Pharmacy Council, the Nursing and Midwifery Council and the National Health Insurance Authority, among others. All the agencies have their own roles and duties to perform to complement the efforts of the MoH.

For instance, the Ghana Health Service has the mandate of the provision of clinical and public health services at the national level. Teaching hospitals provide specialized health care and training of health professionals. Regulatory bodies like the Food and Drugs Authority and the Pharmacy Council have the mandate of ensuring food, drugs, and medical product safety and effectiveness. All these agencies work in collaboration with the MoH harmoniously to provide public health promotion, improvement in health care, and access to quality health services (Witter & Garshong, 2009).

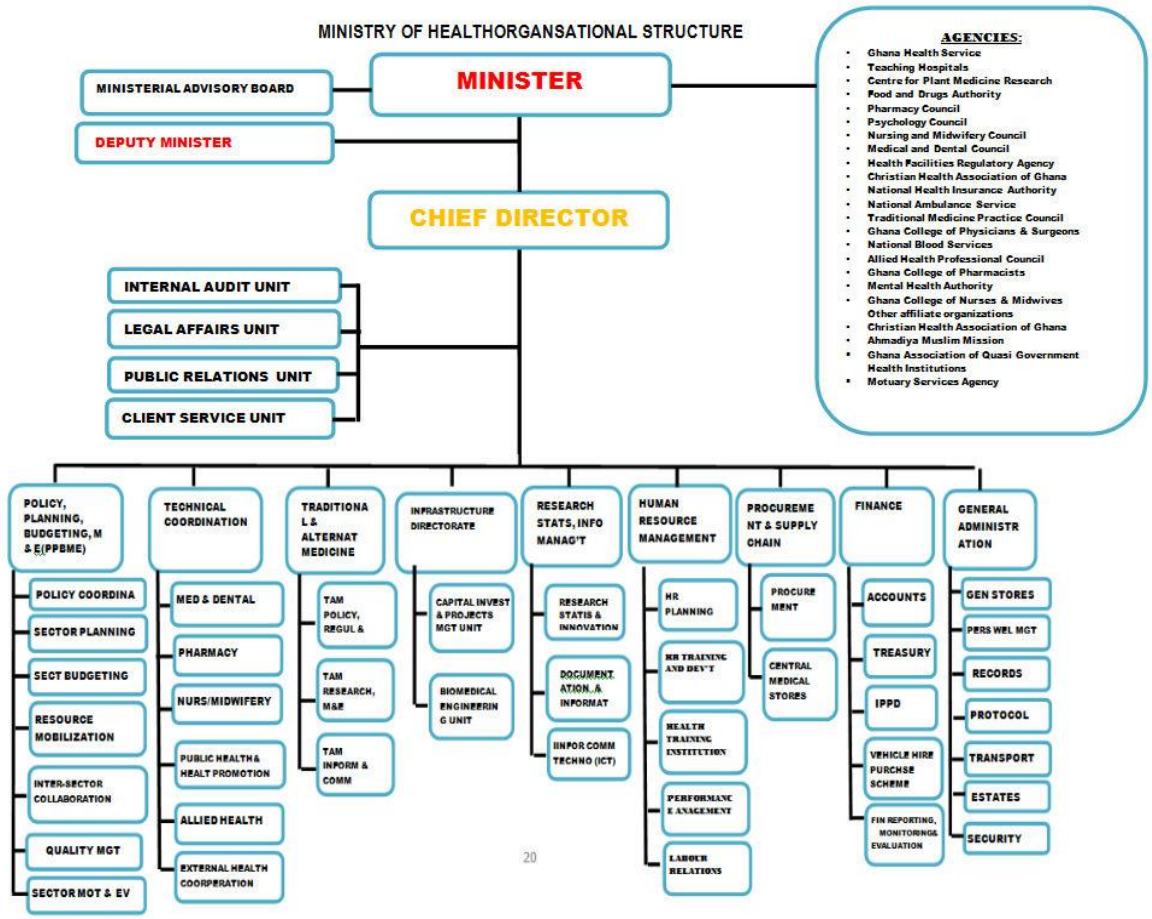


Figure 1: Organisational Structure of MoH

Source: www.moh.gov.gh/organogram/

2.2.1.3.2 Ghana Health Service (Public Sector)

The Ghana Health Service (GHS) is a critical public sector institution of the Ministry of Health. GHS was created in 1996 by Act 525 and is mandated to provide public health and clinical services in Ghana. The service is autonomous but within the policy framework established by the Ministry of Health for effective implementation of national health policies throughout Ghana.

● **Role and Duties**

The primary role of the Ghana Health Service is the provision of comprehensive health services to the Ghanaian people. These include preventive, curative, and rehabilitative services aimed at promoting the health status of the nation. GHS operates a large network of health facilities made up of regional and district hospitals, health centers, and community-based health planning and services (CHPS) compounds. The facilities offer a range of services from basic primary healthcare to specialized care.

One of the GHS's most critical functions is the implementation of health programs against main public health issues such as malaria, HIV/AIDS, tuberculosis, and maternal and child health. The aim of these programs is to reduce the incidence and prevalence of these diseases and, in turn, improve health outcomes. GHS is also significantly involved in the promotion of health and education, aiming to inform and empower communities regarding healthy lifestyles and prevention strategies for health (Ghana Health Service, 2024).

● **Ghana Health Service structure**

The organizational structure of the Ghana Health Service is illustrated in Figure 2.2. At the top of the hierarchy is the Ghana Health Service Council, which provides governance and oversight. This is followed by the Office of the Director General, who bears the overall responsibility for GHS management and administration.

The service is structured into National Directorates and Regional Health Directorates that are responsible for the implementation of health policies and programs at all levels of the health system. The National Directorates are comprised of several key units such as:

● Public Health Directorate (PHD): They are responsible for disease control, health promotion, and environmental health services.

● Policy, Planning, Monitoring, and Evaluation Directorate (PPMED): It is responsible for policy-making, strategic planning, and monitoring and evaluation of health programmes.

● Finance Directorate (FD): Manages the finances of the GHS, ensuring efficient budgeting and financial management.

● Human Resource Development Directorate (HRD): Concerned with the recruitment, training, and development of health personnel.

● Clinical Care Directorate (CCD): Responsible for the provision of quality clinical services across all the health facilities.

Regional Health Directorates oversee the implementation of health policy at the regional level, guiding and monitoring District Health Directorates, which provide health services in their respective districts. Sub-districts decentralize health services further, bringing healthcare to the community level (Ghana Health Service, 2024).

● Collaboration with Agencies

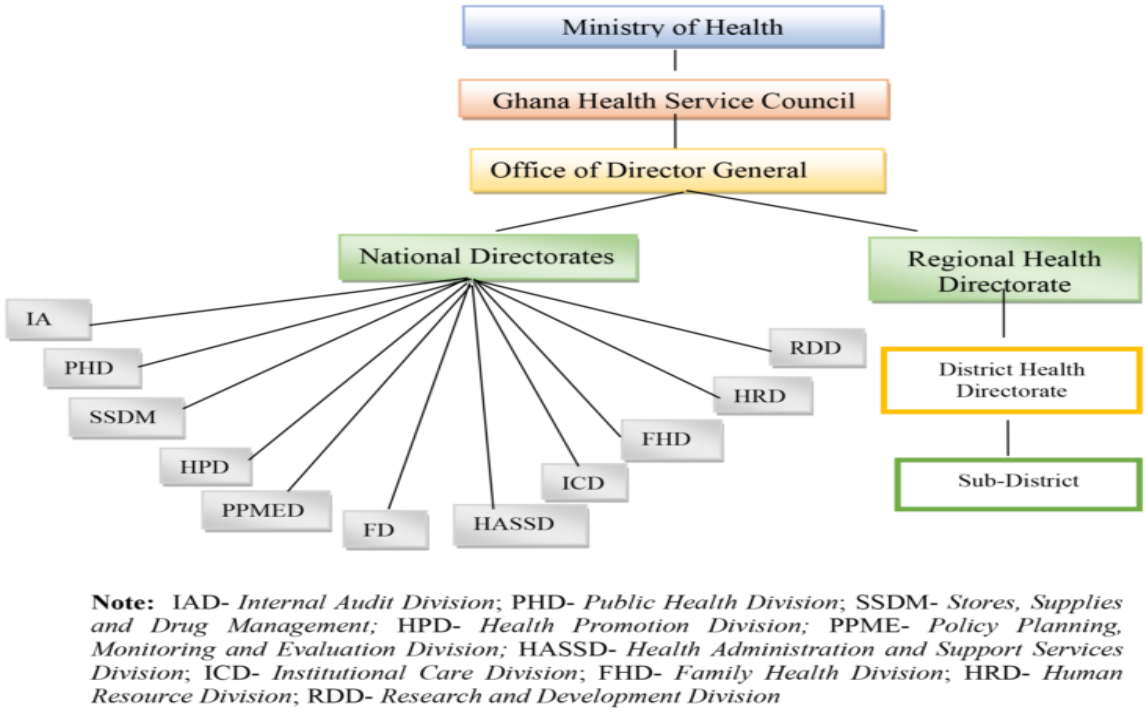
The Ghana Health Service collaborates with other agencies and organizations related to health to enhance the provision of health care, such as collaboration with international agencies like the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), which provide technical and financial support for health programs. GHS also collaborates with non-governmental organizations (NGOs) and community-based organizations (CBOs) for health program implementation and to reach hard-to-reach populations (Witter & Garshong, 2009).

● Impact on Healthcare Delivery

The Ghana Health Service has played a significant role in healthcare delivery in Ghana. GHS, through the decentralization of health services, has improved access to healthcare, particularly

in rural and underserved areas. The creation of community-based health planning and services (CHPS) compounds has taken basic health services to the doorstep of the people, reducing the workload on higher levels of health facilities and improving health outcomes (Dzakpasu & Sackey, 2015).

Besides, the focus on health promotion and preventive health services has led to increased awareness and adoption of healthy lifestyles by Ghanaians. Interventions for communicable and non-communicable diseases have seen a decline in the incidence of these diseases, a pointer to the effectiveness of GHS interventions.



Note: IAD- *Internal Audit Division*; PHD- *Public Health Division*; SSDM- *Stores, Supplies and Drug Management;* HPD- *Health Promotion Division;* PPME- *Policy Planning, Monitoring and Evaluation Division;* HASSD- *Health Administration and Support Services Division*; ICD- *Institutional Care Division*; FHD- *Family Health Division*; HRD- *Human Resource Division*; RDD- *Research and Development Division*

Figure 2: Organisational Structure of Ghana Health Service

Source: ghs.gov.gh/ghs-governance-system/

2.2.1.3.3 The Private Sector

The private sector for health in Ghana performs a significant function in supplementing the public sector, delivering an extensive variety of health care services and filling gaps within the health care system. The private sector comprises private hospitals, clinics, pharmacies, diagnostic centers, and non-governmental organizations (NGOs). These institutions deliver

services that reach different segments of the populace, frequently offering specialized care and innovative health solutions that may not be found in the public sector.

Private clinics and hospitals are major stakeholders in the Ghanaian healthcare provision. They vary from small single-doctor clinics to large multi-specialty hospitals with state-of-the-art medical equipment. Private hospitals tend to deliver better-quality services and shorter waiting times than public hospitals, and hence they are a first choice for most Ghanaians who can afford the services (Bitran, 2011). In addition, private hospitals are renowned for their efficiency as well as their capacity for attracting highly qualified healthcare providers, delivering care that is of international standard.

Pharmacies and diagnostic centers are significant components of the private health sector in Ghana. Private pharmacies provide therapeutic medicines and health products, which in most instances have extended working hours and deliver personalized services that enhance patient convenience and compliance with treatment guidelines. Diagnostic centers, on the other hand, offer specialized laboratory and imaging services, such as X-rays, MRIs, and CT scans, which are crucial for accurate diagnosis and management. These centers significantly improve the overall quality of care by offering timely and accurate diagnostic services that guide clinical decision-making.

Non-governmental organizations (NGOs) are central to the Ghanaian healthcare sector, especially where public health facilities are scarce. NGOs concentrate on particular health problems like maternal and child health, HIV/AIDS, malaria, and tuberculosis. NGOs deliver health education, preventive care, and direct medical intervention to vulnerable groups. NGOs such as the Christian Health Association of Ghana (CHAG) run many health facilities throughout the country and offer healthcare services in rural and hard-to-reach communities where public health facilities might be scarce (Christian Health Association of Ghana, 2024).

Private health insurance companies are also members of the private health sector in Ghana. Private health insurance companies offer varied insurance policies that grant financial protection for health spending, thereby enhancing access to health care services. Private health insurance companies work in liaison with public and private health facilities in the provision of a range of services to their clientele. Private health insurance alleviates the cost burden on households and individuals, thereby enabling them to access required health services without suffering financial hardships.

The private sector collaborates with the public sector in various ways to improve the provision of healthcare in Ghana. Public-private partnerships (PPPs) are in place to leverage the strengths of each sector. For instance, there are contracts between some private hospitals and clinics with the National Health Insurance Scheme (NHIS) to provide services to the insured, thus expanding the coverage of the NHIS (Agyepong & Adjei, 2008). Private diagnostic centers also supplement public hospitals by providing specialized diagnostic services that the public sector might not have.

Lastly, public-private partnership initiatives are prioritizing preventive care and wellness initiatives to reduce the burden of non-communicable diseases (NCDs) such as diabetes and hypertension. Health promotion activities and community outreach programs are being conducted to raise awareness about healthy lifestyles and disease prevention.

Notwithstanding its numerous contributions, the private health sector in Ghana also experiences a number of challenges. A key challenge is the regulatory framework, which may be cumbersome and irregular, impacting the quality and safety of care offered by private health providers. The cost of health care services in the private sector may also be high, making such services inaccessible to populations with lower incomes, and perpetuating health inequities (Bitran, 2011). The private sector also experiences workforce shortages due to competition with the public sector for highly skilled health professionals, which causes staff attrition.

The private health sector in Ghana is still evolving, with innovations aimed at improving healthcare delivery and access. Telemedicine, for instance, is taking root, where patients can now consult healthcare providers remotely. This is particularly convenient for individuals in areas with difficult access to health facilities. Private health providers are also putting money into new health technologies and improving healthcare infrastructure in order to deliver high-quality services that meet the growing health needs of the population.

2.2.2 Universal health coverage in Ghana

In Ghana, Universal Health Coverage (UHC) seeks to guarantee that all people and communities can obtain the health care services they require without the risk of financial hardship. Ghana's road to UHC started from the early post-independence era when the government made health a priority sector with respect to social development. President Kwame Nkrumah's administration laid the framework for the Ghanaian government's commitment to health care for all when he established public hospitals and health centers throughout the country (Nyonator & Kutzin, 1999). The UHC evolved over the years, primarily guided by global health policies and local priorities.

By the late 20th century, the need for more structured mechanisms of health financing became clear. The "cash and carry" system, which was introduced in the 1980s, led to patients having to pay for health services at the point of delivery. This system was plagued by grave inequities because those who could not afford to pay out-of-pocket, the poor and marginalized were disproportionately affected (Witter & Garshong, 2009). The deficiencies of this system led to additional reforms to work toward achieving UHC.

The advent of several health policies and strategic documents fueled momentum in the push towards UHC in Ghana. One of the significant steps forward in the quality of healthcare services in Ghana was introduced in 1996, with the Ghana Health Service and Teaching

Hospitals Act, which formalized the roles and responsibilities of these institutions in delivering comprehensive healthcare services. It was followed by the Health Sector Medium Term Development Plan (HSMTDP) which promoted health service delivery, financing, and governance as components towards achieving UHC (Ministry of Health Ghana, 2016).

One such framework is the National Health Policy, which has been reviewed and updated every few years to focus on evolving health issues in the country and ensuring Ghana align with international health target as we make progress on our own. It continues to uphold Ghana's commitment to UHC by emphasizing fairness in access to health services, the quality of health service provision, and the protection against financial hardship due to health expenditures. Moreover, the nation's commitment to UHC is also reflected in their alignment with the Sustainable Development Goals (SDGs) particularly with regards to Goal 3 – Ensure healthy lives and promote well-being for all at all ages.

Health financing underpins UHC, enabling the provision of essential health services. Over the years Ghana has experimented with different financing models. The National Health Insurance Scheme (NHIS) was introduced in 2003 as a landmark programme that brought resources together to financially protect and help decrease out-of-pocket healthcare expenditures (Agyepong & Adjei, 2008). While NHIS is a major step on the road to UHC, it is only one aspect of a wider health financing strategy encompassing government funding, donor support and contributions from the private sector.

Achieving UHC also involves increasing the efficiency of resource allocation and management. Strategies in place include the Health Financing Strategy 2015-2024 which articulates actions to mobilize domestic resources, protect against financial risk and allocate health resources equitably (Ministry of Health Ghana, 2015). These are valuable approaches to ensure continued health financing and the larger objectives of UHC.

One of the main components of UHC is patients having equitable access to quality health services. During its collaboration with GhanaHealth, the country has witnessed remarkable progress in enhancing healthcare infrastructure and service delivery, especially in rural and remote areas. Community-based Health Planning and Services (CHPS) has significantly improved access to primary health care support across communities (Awoonor-Williams et al., 2013). The use of CHPS compounds encompass basic health services, from maternal and child health initiatives with immunizations to health education, and thus increase access to health services and health outcomes.

Additionally, the government has made efforts to improve the quality of service by building better infrastructure and training its employees to cater to healthcare services. Efforts to bridge traditional and modern medicine have also been undertaken, to expand the availability of care. Such efforts can be seen as an integral part of ensuring universal health coverage (UHC), as they address both the physical access to health services and the quality of those services offered.

Robust monitoring and evaluation (M&E) systems are essential for tracking progress against UHC. Ghana's health system performance must be judged based on its strong M&E-infrastructure, as a tool to identify health system gaps and explore possible solutions to guide and adapt policy. The Ghana Health Service regularly conducts health surveys and assessments alongside other stakeholders to obtain data on health indicators, service coverage, and financial protection (Ghana Health Service, 2017). These approaches allow health service decisions to be made based on evidence and for health service delivery to improve in incremental steps.

Technology in health information systems has enhanced the M&E activities. Digital health platforms and electronic health records facilitate real-time data collection and analysis, enhancing the accuracy and timeliness of health information. Such progress further enables resource allocation and the execution of targeted interventions toward UHC.

Despite the progress, Ghana has a number of challenges toward UHC. The issues of limited funds, geographic differences, and health workforce shortages are huge barriers. On top of this, there are other sustainability-covered issues with health financing and quality of care. These challenges will need continuous political will, new ways of financing and public-private partnerships.

Future directions for UHC in Ghana involve scaling up successful initiatives, strengthening health systems, and ensuring inclusive policies that address the needs of all population groups. These new strategies for UHC include the implementation of preventive care, the increased focus on health education, and the promotion of public-private partnerships. Ghana's commitment to universal health coverage will require continued investment in health infrastructure, workforce development, and technology.

2.2.3 Evolution of Healthcare Financing in Ghana

Health financing are the mechanisms through which funds are raised to pay for health systems, including the accumulation, oversight, and administration of political resources to ensure that health services are delivered (Fan and Savedoff, 2014). Healthcare financing in Ghana has evolved from an over-reliance on the government to a diversified model with diversified funding sources. This evolution represents the progression of national efforts towards improving access to health care, alleviating financial burdens, and securing sustainable health financing.

Public funded all health services in Ghana at the start. The hospitals and clinics were free during the post-independence era, demonstrating in the wake of independence a lying government goal of equity. However, with the growing pressure on the finances of the government and economic problems, a need arose to change the paradigm of health care

financing (Rizvi, 2020). Relying on just government funding was unsustainable, so new financing mechanisms needed to be put in place.

In the 1980s, the government of Ghana embraced the "cash and carry" system as part of more extensive structural adjustment programs supported by international financial institutions. This latter system had placed the financial burden of health services on the patient at the point of delivery, with out-of-pocket payments becoming the major source of healthcare financing. In an effort to protect government resources, the cash and carry system was established but it resulted in high access barriers especially for the poor and vulnerable populations who could not pay for the services upfront (Blanchet et al., 2012). This system's inequities and inefficiencies emphasized the need for alternative financing mechanisms that may can offer fairer access to healthcare.

To address the challenges of the cash and carry system, Ghana began piloting prepayment and insurance models in the 1990s. One such model was community-based health insurance schemes (CBHIS), which aimed at pooling resources to mitigate health-related financial hardships at the community level. These schemes were initially piloted in rural areas, where the burden of out-of-pocket payments was most keenly felt. CBHIS laid the groundwork for developing wider insurance mechanisms, showing the potential for community engagement in financing and management of health care (De Allegri and Sauerborn, 2007).

Another notable step in Ghana's healthcare financing journey was the inception of the District Mutual Health Insurance Scheme (DMHIS) in the late 1990s. DMHIS was developed to broaden community coverage that aimed to provide a broader coverage to a population through pooling of the resources in district level and having different health services for the health care members. The experiences gained and challenges encountered with DMHIS guided the establishment of the National Health Insurance Scheme (NHIS) in 2003, which aimed to

achieve universal health coverage by bringing together the various insurance schemes under a national umbrella (Dalaba et al., 2014).

Despite the NHIS being a huge step forward in financing healthcare, other mechanisms remained fundamentally integral to funding health services. Donor funding and international assistance have played a vital role in reinforcing the Ghanaian health sector, especially in terms of targeted health responses on areas like HIV/AIDS, malaria, and maternal and child health. International programs funded by the Global Fund, USAID, World Bank, and others have invested significantly in health mutative solutions, development of infrastructure, and preparation (Mills et al., 2012). But dependence on donor funds also created problems of sustainability and fit with national health priorities.

Ghana has also seen a rise of Public-private partnerships (PPPs) as a source of healthcare financing. These partnerships often refer to joint efforts between governmental entities and private sector organizations which aim to enhance the quality of healthcare services offered to the population and strengthen the overall healthcare infrastructure of a nation. Departments have been able to expand investments around hospital staff, diagnostic centers, specialist care, and health technology through PPPs, resulting in a net better capacity of the health system. An instance would be the investments made by the private sector, the opening of specialty services and reduction of the burden on public hospitals (Bockmann, 2020).

Moreover, the contribution of external remittances in healthcare financing should also be considered. Remittances from Ghanaians abroad are a common source of income back home to help families cover healthcare expenses. Such remittances enhance out-of-pocket payments for health services and aids to purchase health insurance premiums. As a result, the influx of remittances become an extra layer of financial protection, especially for low health financing access households (Ghana Statistical Service, 2020).

Ghana has also been investigating innovative financing mechanisms in recent years as part of broad attempts to increase the sustainability of its healthcare funding. These comprise which include the implementation of earmarked taxes like the National Health Insurance Levy (NHIL), a VAT used to fund the NHIS. These measures are intended to ensure a more steady, and predictable source of funding for healthcare, reducing the dependence on donor aide and out of pocket financing. It is also being implemented initiatives to improve efficiency in health spending, performance-based financing and financial management reforms to ensure that available resources are used effectively (Saleh, 2013).

Overall, the evolution of healthcare financing in Ghana reflects a dynamic and adaptive approach to addressing the financial challenges of providing equitable and quality healthcare. The country's experience highlights the importance of diverse financing sources, community involvement, and continuous innovation in building a resilient health financing system.

2.2.4 Overview of Nation Health Insurance Scheme in Ghana

2.2.4.1 History and Introduction of NHIS in Ghana

The National Health Insurance Scheme (NHIS) in Ghana was a response to the high financial barriers many Ghanaians experienced accessing healthcare services. Prior to its implementation, health care had been funded primarily via out-of-pocket payments, presenting a substantial challenge for the poorer strata of society. Under this cash and carry system established in the 1980s, patients were expected to pay for health services at the point of delivery, resulting in catastrophic health expenditures for a number of households (Witter & Garshong, 2009). This architecture characterized the need for a cross-cutting and sustainable health financing mechanism, paving the way for the development of NHIS.

The concept of a national health insurance system began to take shape in the late 1990s as part of broader health sector reforms. The goal of all these reforms was to eliminate inefficiencies and inequities in the healthcare system and to provide all citizens with access to health services. The NHIS was established in the year 2003 with a legal backing from the National Health Insurance Act, Act 650 which provided a legal foundation for the implementation of the scheme (Agyepong & Adjei, 2008). People of Ghana, especially the poor and vulnerable populace, were largely not exempted from the risk of going through the pain of impoverishment due to inability to pay for basic healthcare services, which was mainly the importance of the NHIS.

It was structured as a social health insurance where the funding was derived from all sources, including premiums charged to members, contributions by the Social Security and National Insurance Trust (SSNIT) and taxes for specific purposes such as the National Health Insurance Levy (NHIL). The introduction of the NHIL, a value-added tax levied on certain goods and services, was intended to serve as a sustainable source of funding for the scheme. This diverse funding mechanism was designed to make the scheme financially sustainable and to expand the range of health services covered (Blanchet et al., 2012).

Implementation of the NHIS started with the rollout of District Mutual Health Insurance Schemes (DMHIS) nationwide. These district schemes were charged with signing up members, collecting monthly premiums, and paying claims. This decentralized approach enabled better management and responsiveness to local health needs. By 2008, millions of Ghanaians were enrolled in the NHIS and access to health care services was increasing. This success was evidenced by increased uptake of health services, decreased out-of-pocket costs, and improved health outcomes (Sarpong et al., 2010).

NHIS has grown in its services and coverage over the years. It encompasses a wide range of services, such as outpatient care, inpatient services, maternal health, emergency services, and

essential medicines. From the beginning, the aim was to offer as many fundamental health services as possible, enabling all Ghanaians to obtain the health care needed without financial difficulty. The NHIS keeps advancing towards its objectives of universal coverage in health care delivery while adjusting to the diverse healthcare needs of the general population and the economic environment (Ghana National Health Insurance Authority, 2018).

2.2.4.2 Vision Mission and Core Value of NHIS

Vision

To be a model of sustainable, progressive, and equitable national health insurance scheme in Africa and beyond.

Mission

To provide financial risk protection against the cost of quality health care for all residents in Ghana and to delight our members and other stakeholders with an enthusiastic, motivated, and empathetic professional staff who share the values of honesty and accountability in partnership with all stakeholders.

Core Values

- Integrity
- Accountability
- Empathy
- Responsiveness
- Innovation and
- Adherence to professional ethics

2.2.4.3 Legal Framework of NHIS

The legal basis for the NHIS was established through the enactment and implementation of several key laws and policies that govern the operation and management of the program. This legal structure is anchored on the National Health Insurance Act, Act 650 passed in 2003. The NHIS was, therefore, established by an act of Parliament (Act 650) which provided the legal framework for the design, funding mechanism and operational guidelines for the scheme (Agyepong & Adjei, 2008). The Act established the National Health Insurance Authority (NHIA) to manage and regulate the scheme.

The National Health Insurance Act, Act 650 was subsequently amended by 2012 by National Health Insurance Act, Act 852. This amendment was designed to mitigate some of the problems and lethargy which surfaced during the initial phase of implementation. A number of key changes accompanied the introduction of the Act (Act 852), including the creation of a single national health insurance fund (Blanchet et al., 2012). In particular, this reform was important to improve the financial sustainability of the NHIS and promote the equitable distribution of resources throughout the country.

A notable feature of Act 852 is that it empowers the NHIA to regulate and accredit healthcare providers. The regulatory function of this body is crucial to upholding the quality of health services delivered under NHIS. The NHIA determines the standards for service providers and monitors their compliance, as well as taking corrective measures aimed at non-compliant providers (Ghana National Health Insurance Authority, 2018). By doing so, the law guarantees high-quality healthcare services for beneficiaries and compliance with established standards by providers.

Transparency and accountability provisions are another critical component of the legal framework. NHIA is mandated to provide annual reports to the Parliament of Ghana on the financial position, operational performance and strategic focus for the NHIS. It ensures transparency and the scheme is overseen by the parliament to guarantee that it runs in the public good. The legal framework also includes mechanisms for addressing grievances and disputes, allowing for structured processes for grievances and dispute resolution through which beneficiaries and providers can raise concerns and seek redress (Agyepong & Adjei, 2008).

It also proposes stronger rights to stakeholder engagement and public participation in the process. Section 37 of Act 852 requires the governance structures of the NHIA to include representatives from various stakeholder groups, including healthcare providers, civil society organizations, and beneficiaries. In order to ensure that the scheme accounts for the range of perspectives held by the population and remains relevant, it includes a wide range of stakeholders in dialogue for input on implementation and decision-making processes. Thus, the legal framework not only offers the structural and operational guides that will govern the NHIS, but will also nurture an environment that will facilitate concerted and participative governance and administration within the NHIS (Blanchet et al., 2012).

2.2.4.4 Accreditation of NHIS Providers and Providers Mechanism

Accreditation of healthcare providers is a key mechanism to ascertain that services provided under Ghana's National Health Insurance Scheme (NHIS) conform to predetermined standards of quality and safety. Accreditation is used to assess and monitor the performance of the provider and increases consumer confidence in the health system and ensures that beneficiaries are receiving a better standard of care.

Accreditation of healthcare providers under the NHIS is the responsibility of the National Health Insurance Authority (NHIA). This requires a thorough assessment of health facilities according to criteria set by the National Health Insurance Authority (NHIA). (financial reporting, governance, infrastructure, equipment, staffing levels, clinical practices and availability of essential medicines and supplies (NHIA, 2018). Those that are able to attain these standards are accredited, thereby able to provide services to NHIS beneficiaries. Its curation process is intended to ensure that only those facilities with the capacity to deliver safe and effective care would be included in the NHIS network.

Accreditation is a continuous process rather than end point. Accredited facilities undergo regular inspections and audits to maintain compliance with NHIA standards. These reviews are either scheduled or unannounced and give a complete picture of the functioning of the facility. The NHIA conducts such inspections within facilities to check matters including the institutions' achievements in respect of patients' safety, clinical outcomes and administrative efficiency. If standards are not maintained, accreditation can be revoked, in which case the facility is no longer able to provide services through the NHIS (Lamptey et al., 2017).

The NHIA employs a multi-tiered approach to accreditation, recognizing that healthcare facilities operate at different levels of care. Primary healthcare facilities, such as community health centers and clinics, are evaluated based on criteria relevant to basic healthcare services. Secondary and tertiary facilities, such as district and regional hospitals, are assessed based on more comprehensive standards, reflecting their capacity to provide specialized and advanced medical care. This tiered approach ensures that accreditation criteria are appropriately aligned with the level of care provided, fostering a more equitable and efficient health system (NHIA, 2018).

Accreditation includes a process for ongoing improvement. The NHIA contacts healthcare facilities after conducting supervision visits, informing them of things they excelled at but also things they can better improve on. Facilities may be required to formulate and activate action plans to mitigate deficiencies and improve their delivery of service. The NHIA also provides facilities with performance improvement support and resources including training and technical assistance. This article argues that working collaboratively enhances quality improvement through inter-professional working to develop a more integrated health system (Blanchet et al., 2012).

The accreditation process under the NHIS has several strengths. It ensures that healthcare facilities meet minimum standards of quality and safety, enhancing the overall reliability of the healthcare system. Regular inspections and feedback mechanisms promote accountability and continuous improvement among providers. However, challenges remain. The accreditation process can be resource-intensive, requiring significant investment in time and personnel. Additionally, there may be variability in the implementation of accreditation standards across different regions, potentially affecting the consistency of care. Addressing these challenges is essential for maintaining the integrity and effectiveness of the NHIS accreditation mechanism (Kipo-Sunyehzi et al., 2019).

2.2.4.5 Health Insurance Models

The models for health insurance vary significantly between countries, each with its approach to providing universal health coverage and financial protection. Comparative analysis of these models can provide valuable insights into the strengths and weaknesses of Ghana's National Health Insurance Scheme (NHIS).

A leading example of health insurance model is the social health insurance (SHI) system in Germany. This system has workers and employers pay compulsory contributions to health insurance, which is administered through non-profit sickness funds. The German model focuses on equity and quality of care, while maintaining comprehensive coverage and financial protection for all individuals (Blümel et al., 2020). Japan similarly utilizes a SHI model, which is made available through employer-based and community-based plans that are funded by payroll contributions as well as government subsidies. This model has produced population-wide coverage and equitable access to a range of healthcare services (Ikegami & Campbell, 2004).

The United States, by comparison, relies on a mixed model of private health insurance and public programs like Medicare and Medicaid. The U.S. system is highly market-oriented, with wide variation in coverage and access. Private insurance provides comprehensive benefits for those who can afford it, though many Americans face challenges with narrow coverage and high out-of-pocket costs (Kaiser Family Foundation, 2019).

Introduced in Ghana in 2003, the National Health Insurance Scheme (NHIS) is a social health insurance scheme with distinctive features adapted to the socio-economic context of Ghana. The NHIS is a pool of money collected from different sources such as the premiums paid by members, contributions from the Social Security and National Insurance Trust (SSNIT) to the pool and earmarked taxes like the National Health Insurance Levy (NHIL). Such multi-perspective funding scheme of general population coverage should be financially sustainable (Blanchet et al., 2012).

NHIS provides a benefit package including outpatient and inpatient services, maternity care, emergency care and essential drugs. It also provides coverage for healthcare treatment needed and seeks to exempt Ghanaians from facing a life of financial debt as a result of health care

payments (Ghana National Health Insurance Authority (2018). The decentralized approach to NHIS through DMHIS enables local governance and responsiveness to community health needs.

There are several strengths of the NHIS that set it apart from other health insurance models. A major strength is their focus on equity & inclusion. The scheme gives financial risk protection to all Ghanaians especially, the poor and vulnerable who had great difficulty in accessing to healthcare. The NHIS has been effective in increasing health care utilization, decreasing out-of-pocket expenditures, and increasing health outcomes (Sarpong et al., 2010).

Again, the NHIS offers a relatively comprehensive benefits package, ensuring access to a wide range of essential health services. Such comprehensive coverage contributes to meeting the varied health needs of the population and to lowering the burden of catastrophic health expenditures. Earmarked taxes (e.g., NHIL) are a relatively stable and predictable revenue source, contributing to better financial sustainability of the scheme (Blanchet et al., 2012).

Despite its strengths, the NHIS also faces several weaknesses and challenges. An important point is the scheme's financial sustainability. While stable funding comes in the form of the National Health Insurance Levy (NHIL), escalating demand for health services and increasing healthcare costs lead to continuing financial pressure. Furthermore, delays in reimbursements to healthcare providers have impacted service delivery and provider participation in the scheme (Nsiah-Boateng et al. 2019).

Another challenge is the bureaucratic complexity of the NHIS. While DMHIS enables decentralized management that is responsive to local needs, this can occasionally result in disparities in service provision and inefficiencies in management. Moreover, problems of fraud and abuse have eroded public trust and the effectiveness of the scheme. Tackling these

administrative challenges is vital to sustaining the NHIS's credibility and functionality (Ghana National Health Insurance Authority, 2018).

Comparing Ghana's NHIS with health insurance models in other countries reveals important lessons and potential areas for improvement. For instance, the SHI models in Germany and Japan highlight the benefits of strong regulatory frameworks and robust funding mechanisms to ensure equity and sustainability. The mixed model in the United States underscores the importance of balancing private and public sector roles to enhance coverage and access.

2.2.4.6 Benefits of NHIS Enrolment

The NHIS in Ghana enrolment offers a plethora of advantages in relation to individuals as well as the entire health system. Such benefits include financial protection, improved access to health services, health outcomes, equity in health systems and support for preventive and maternal health services.

- **Financial Protection**

The most important benefit of NHIS registration is that it enables people and households to protect themselves from financial risk. Before the NHIS came into effect, the financing of healthcare in Ghana was mainly done through direct out-of-pocket payment. It often led to catastrophic health expenditures, which means a household faces an excessive financial burden because of health costs (Blanchet et al., 2012). The NHIS reduces this challenge, by becoming collective through premiums, SSNIT and NHIL (National Health Insurance Levy). This pooling mechanism also protects members from high out-of-pocket costs that can cause financial difficulties.

Studies have demonstrated that the likelihood of having catastrophic health expenditures is significantly lower among NHIS enrollers. For instance, Sarpong et al. For example, Chen et al. (2010) showed that households covered under the NHIS experienced less financial distress from medical expenses than non-enrolled households. This fiscal cushioning is especially good for poor households that are more susceptible to the economic shocks linked with health crises.

- **Increased Access to Healthcare Services**

The NHIS enables clients to have more access to healthcare services, one other advantage to note. It provides outpatient and inpatient care, maternal health as well as emergency care and essential drugs. Although a comprehensive benefits package, in principle, allowing the members to access needed health services with little barriers of high costs (Ghana National Health Insurance Authority, 2018).

Studies have shown that NHIS enrollment is positively associated with increased healthcare utilization. For example, a study by Blanchet et al. (2012) found that NHIS members were more likely to seek medical care when needed and had higher rates of outpatient visits compared to non-members. This increased utilization is crucial for early diagnosis and treatment of health conditions, which can prevent complications and improve health outcomes. Furthermore, the NHIS has facilitated access to specialized services and treatments that may otherwise be unaffordable for many Ghanaians.

- **Improved Health Outcomes**

NHIS membership has been associated with positive health outcomes among its enrolees. The NHIS works to reduce the incidence and severity of diseases by providing access to important health services and medications. NHIS maternal and child health services, for example have

helped to reduce maternal mortality and infant mortality. In Ghana, the NHIS has positively impacted maternal health outcomes through the provision of antenatal care, skilled birth attendance, and postnatal care (Wang et al., 2017).

Moreover, the NHIS facilitates the control of chronic conditions like hypertension and diabetes through the provision of drugs and periodic physician visits. Early detection and consistent management of these conditions are essential for preventing complications and improving the quality of life for individuals with chronic diseases. Studies have demonstrated that NHIS members with chronic conditions are more likely to receive regular medical care and adhere to treatment regimens compared to non-members, leading to better health outcomes (Kotoh et al., 2018).

- **Reduced Inequities in Healthcare**

The NHIS helps to ameliorate inequities in access to and outcomes of any healthcare. There were wide gaps in access to healthcare between the different socio economic groups and the geographical regions of the country before the advent of NHIS. The NHIS especially seeks to remedy these disparities by creating a single health financing mechanism that ensures all Ghanaians can access health services in a fair manner irrespective of their socio-economic status or geographical location (Agyepong & Adjei, 2008).

Research indicates that NHIS participation reduces healthcare access disparities between urban and rural residents. For example, Akazili et al. (2012) showed that NHIS enrollment among rural residents was associated with an increase in healthcare service utilization compared to non-beneficiaries. The growth in access can be crucial for universal health coverage to all Ghanaians.

- **Support for Preventive and Maternal Health Services**

The NHIS also plays a major role in supporting preventive and maternal health services. Preventive care, which includes vaccinations, health education, and screenings, plays a vital role in protecting public health and preventing the transmission of infectious diseases. The NHIS encompasses a variety of preventive services, which motivates members to adopt health-promoting behaviours and obtain early medical care (Ghana National Health Insurance Authority, 2018).

One important component of the NHIS is maternal health services, as reducing maternal mortality is crucial for the health of both mothers and infants. It provides antenatal visits, deliveries, postnatal visits, and family planning services to women who come, including reproductive health services. Research indicates higher uptake of skilled attendants at delivery and reduced maternal mortality rates among those enrolled in NHIS, demonstrating the scheme's benefits for maternal health (Wang et al., 2017).

2.2.4.7 Implementation Challenges of NHIS in Ghana

The National Health Insurance Scheme (NHIS) has been a champion of improving access to health care to many Ghanaians since its inception. The scheme, however, is mired in several implementation challenges that jeopardise its sustainability and efficacy. These include funding shortfalls, enrollment barriers, service coverage limitations, geographical inequities, quality of care issues, fraud and abuse, and policy and administration flaws. These comprised of challenges that affect the performance and reach of the NHIS, therefore, warranting a sociological perspective to adequately address the factors that may be stalling the successful uptake of the scheme.

2.2.4.7.1 Funding Shortfalls

The National Health Insurance Scheme (NHIS) faces a major challenge of funding shortfall over its capacity to deliver appropriate and timely health care services to its members. Source of funding of the NHIS encompasses premiums from members, contributions from the Social Security and National Insurance Trust (SSNIT) and earmarked taxes like the National Health Insurance Levy (NHIL). Despite these diversified patterns of funding, the scheme is very often struggling with limited finances, hampering its operations and sustainability (Blanchet et al., 2012).

Shortcomings of the NHIL is one of the major causes of funding shortfall. While the levy accounts for a large part of the NHIS's revenues, the levy has not kept up with the cost of healthcare. Inflation, growing demand for healthcare and the expanding range of services covered by the NHIS have all outpaced the increase in levy collections. This shortage between income and cost makes for an ongoing financial burden on the scheme. A real-term decline in available funds has been observed in the study by Dalinjong and Laar (2012) because of the NHIL not being revised based on inflationary pressures.

Irregular and protracted payment of contributions to the SSNIT also contribute to funding shortfalls. SSNIT plays a critical role in the NHIS, as it ensures timely remittance of contributions to sustain cash flow into the service. Nonetheless, due to administrative bottlenecks and financial problems in SSNIT, transfers from them to NHIS are often delayed, compounding NHIS financial woes. These hold-ups impacted on the scheme's capacity to reimburse healthcare providers on timely basis, resulting to dissatisfaction and less willingness by provider to deliver services to the NHIS members (Sulzbach et al., 2005).

The framework of financial management in the NHIS also accounts for funding deficit. Problems, including the misallocation of funds and a lack of transparency, as well as inefficiencies in financial administration, have come to light. Such practices eat into the mint that runs the scheme and leaves less money to pay for healthcare. For example, inspection from the Ghanaian Ministry of Health (2016) indicated there are inconsistent records on finance and mismanagement of funds from NHIS; which needs to be addressed and corrected as it calls for improvement on financial oversight and accountability.

Funding deficits affect the quality and responsiveness of health care delivered under the NHIS. So, when the scheme runs low on funds it fails to reimburse those providing healthcare adequately and on time. Consequently, they are either refused treatment by these healthcare providers or asked to make informal payments, thus defeating the purpose of the scheme which is to provide affordable healthcare for all. Additionally, the financial constraint restricts the NHIS from expanding its services, investing in health infrastructure, and enhancing the quality of care, all of which places a financial burden on the NHIS. A study by Schieber et al. (2012) found that financial challenges within the NHIS resulted in reduced service provision and lower patient satisfaction.

Funding shortfalls having implications not only with regard to implementation of NHIS but also healthcare service & coverage expansion. The financial challenges of the scheme limit its capacity to incorporate new and essential health services in its benefits package. One of the aspects which is impacted by this is the scope of care that is available to the NHIS members, thereby making it inadequate in providing the required service. On top of that, the lack of finances also limits the NHIS in its scaling of coverage to reach disadvantaged and remote areas, thus amplification geographical inequities in accessing healthcare. A report by the

National Health Insurance Authority (NHIA) (2018) states that one of the greatest barriers to attaining universal health coverage in Ghana is the scheme's financial instability.

2.2.4.7.2 Enrollment Barriers

Ghana's National Health Insurance Scheme (NHIS) system faces serious challenges in effectiveness and sustainability due to barriers to enrollment. These qualifying conditions exclude numerous deserving people from participating in the program, restricting both its reach and effectiveness. Identifying these barriers is essential for overcoming the low enrollment numbers and attaining the target of universal health insurance coverage.

One major enrollment barrier is lack of awareness and understanding of the NHIS among the population, which serves as a major barrier to enrollment. Over 80% of Ghanaians, especially those in rural and remote communities are not well informed on the benefits of the scheme, the operation of the scheme and how to enroll in the NHIS. These schemes have not enrolled enough people because the very people they want to sign up are not aware that it has been set up, or even if they are aware, don't understand why they need to be enrolled under this scheme. A study by Kotoh et al. (2018) showed that lack of awareness about the NHIS, as well as to pre-existing misconceptions were major barriers to enrollment, especially among vulnerable populations.

Premium affordability is another key barrier. Although the NHIS seeks to make healthcare accessible, premiums can still be a burden on low-income households. For many families, the high cost of the annual premium and other indirect costs — including transport to NHIS offices for registration and renewal — are financial burdens. The requirement to pay annual premiums, coupled with other indirect costs such as transportation to NHIS offices for registration and renewals, poses a financial burden for many families. This financial constraint is particularly acute for informal sector workers, who do not benefit from employer contributions and must bear the full cost of premiums themselves. According to Dalaba et al. (2014), premiums

affordability was one of the main determinants of NHIS enrollment, as many low-income individuals could not afford to pay the premiums.

NHIS enrollment is also slowed by administrative inefficiencies and bureaucratic obstacles. The process often times can be painstaking and lengthy, with numerous procedures and notebooks to charter. Long waits, complicated paperwork and a requirement for documents that residents often do not have raise other barriers to enrolling. These administrative challenges serve as a deterrent for enrolment especially for those who need to cover long distances to access NHIS offices. In a similar vein, The World Bank (2016) reported that simplifying the enrollment process and reducing bureaucratic barriers could significantly improve NHIS enrollment rates.

Geographic barriers also present enrollment challenges. NHIS office and staff are poorly available in some rural areas, but residents need to consider whether it is easy to obtain the services related to NHIS enrollment. Currently NHIS offices are by common practice located in major cities, presenting a major challenge to rural-dominated populations who may have to travel extensive distances to register for or renew membership. This geographical imbalance compounds inequities in health care access and undermines the goal of universal health coverage. Nsiah-Boateng et al. (2019) spoke of mobile enrollment units and decentralized services as a way of enhancing the coverage of the National Health Insurance Scheme in rural communities.

NHIS uptake is further constrained by socio-cultural factors. Traditional beliefs and practices can affect healthcare-seeking behavior and perceptions about of formal health insurance in some communities. For example, some who rely on traditional healers or community-based care will have little motivation to sign up for the NHIS because their needs are being met even without formal medical services. Moreover, intra-household dynamics and decision-making

can play a role in one's enrollment, often leaving women and children with less ability to access health insurance. Research by Dixon et al. (2014) demonstrated that through cultural beliefs and social norms, NHIS enrollment is highly influenced by socio-political factors, especially in areas of strong rural conservatism.

Together, these enrollment barriers represent a formidable challenge for the NHIS. The financial sustainability and efficacy of the scheme is compromised as enrolment is low, which limits the risk pool. In order to attain its objective of universal health coverage, NHIS needs to tackle these barriers by raising awareness, obviating affordability, reducing administrative barriers, increasing geographical accessibility, and accounting for socio-cultural factors. These issues must be tackled if all Ghanaians are to enjoy the financial protection and access to health care provided by the NHIS.

2.2.4.7.3 Service Coverage Limitations

One of the key challenges to the effectiveness and inclusiveness of the National Health Insurance Scheme (NHIS) in Ghana is the limitations of service coverage. Although the NHIS covers a wide range of healthcare services for its members, certain limitations in coverage prevent it from effectively addressing the healthcare needs of the broader population. These constraints affect the types of services that are covered, the availability of specialized care, and the adequacy of essential medications and treatments.

One major limitation is the narrow set of services covered by the NHIS. While the scheme includes an array of services, such as outpatient care, such as inpatient care, maternal and child health care, and emergency care, many important health services are excluded from the scheme. Examples of these services are tertiary and super-specialty medical services such as advanced diagnostic services, some surgical procedures, and specialized treatments for chronic diseases

like cancer and cardiovascular illnesses, which are either not covered or poorly covered by the NHIS (Saleh, 2012). As a result, it leaves members with no option but to pay for these services out-of-pocket, which can be cost-prohibitive and financially stressful.

Consequently, specialized medical care is not covered when it might be most useful for the patient. When it comes to diagnosing and managing complex health issues, specialized care — such as consultations with specialists, advanced imaging, and tertiary care — becomes essential. But the NHIS covers little for these services, and as a result, many patients get neither timely nor adequate care. Dalinjong and Laar (2012) identified that the exclusion of specialized services from the NHIS benefits package was a major impediment to comprehensiveness of healthcare, especially in individuals with chronic disease or severe health conditions.

Another major problem is insufficient coverage for necessary medications and treatments. However, although the NHIS maintains a formulary of covered drugs and medications under the scheme, this list is often restrictive and excludes many essential drugs for the treatment of chronic diseases and other serious health conditions. Patients often claim that due to the lack of coverage from the NHIS, they pay from their own pockets for medication and this causes non-adherence to treatment regimens resulting in poorer health outcomes. For instance a research conducted by Kusi et al. (2015) showed that limited coverage for drugs under NHIS was a concern for the participants, especially those with chronic diseases (hypertension and diabetes).

Geographical gaps add another layer to service coverage challenges, as services are less available in less populated or more remote areas. Generally, urban areas provide better healthcare facilities and wider range of services than rural and remote areas, which may miss necessary facilities and professionals to match comprehensive care requirements. Since the

NHIS fails to allocate its services fairly among various regions, members in the rural regions are at a disadvantage because their access to services is significantly restricted (National Health Insurance Authority, NHIA, 2018).

Moreover, the NHIS benefits package needs to be regularly reviewed and adapted in response to the changing needs of the healthcare system as new health challenges arise. But financial problems and administrative issues have hampered the NHIS's ability to keep up with these shifting demands. One reason for this is the inflexibility of the benefits package: Emerging health services — especially those like mental health and preventive care, which don't necessarily lead to a cure — may not be included even when they would lead to higher health spending. This coverage gap makes it difficult for the NHIS to fulfill the broad health needs of its members, thus restricting its ability to enhance overall public health (Blanchet et al., 2012).

2.2.4.7.4 Geographical Inequities

Geographical inequities are a major threat to the NHIS claiming that equitable distribution of healthcare services across Ghana. Continue to exist--For instance, uneven access to health care facets can result in equal population health outcomes or even limit full access to health care services due to lack of responsiveness of health care to the population specifically in rural areas.

Inequities in access to healthcare favour urban areas and one of the main reasons, are the unequally distributed healthcare services and professionals in various geographical regions. The vast majority of hospitals, clinics and specialized medical services are concentrated in urban areas, especially in the larger cities such as Accra and Kumasi. This leads to a higher concentration of healthcare providers like doctors, nurses, and specialists in well-developed

regions with good infrastructure, better pays, and more opportunities for development (Blanchet et al., 2012). On the other hand, there is often a critical shortage of healthcare infrastructure and personnel in rural and remote regions, further complicating residents' access to needed medical care.

Rural communities must travel long distances to the nearest healthcare facility because of the imbalance in health facilities between urban and rural areas. This trekking is often characterized by high prices and logistical hurdles like poor road infrastructure and limited public transport. Given this information, rural residents are less likely to receive timely medical attention which results in poor health outcomes and increased fatalities. A study by Ayanore et al. (2019) also indicated that NHIS participants living in rural areas experienced longer wait for services than urban dwellers due to distance from health care facilities.

Limited economics intensify the geo inequities in health care access. While the NHIS is designed to provide basic financial protection against the cost of health care, the extra costs associated with transport and lodging for those traveling long distances to receive necessary care in urban centers are unaffordable for many residents of rural areas. Out-of-pocket payments for healthcare not covered by the NHIS are an important barrier to healthcare access. The Ghana Health Service (2016) also noted that high costs of travel and accompanying costs were minimising the willingness of rural dwellers to access health services offered by the NHIS.

Geographic disparities also exist in care quality between NHIS members in different parts of the nation. Healthcare facilities in urban areas tend to be better equipped, better staffed, and provide a greater range of services at a higher quality than are available in rural areas. On the flip side, rural healthcare institutions are often within confines with a dire shortage of medical supplies, drugs, and skilled personnel to effectively provide care to patients. Rural residents

might avoid using the NHIS in many cases on account of the perceived lower quality of service compared to their urban counterparts. This perception reinforced by a study by Dalaba et al. (2014) which demonstrated that rural healthcare systems regularly operated under resource scarcity, negatively impacting the quality of services they could provide.

In addition, there are geographical inequities that impede the NHIS from providing comprehensive and equitable healthcare coverage. In rural communities, the plan's narrow coverage reduces its overall effectiveness and undermines the objective of universal health coverage. The nationwide decentralized structure of the NHIS with DMHIS has the potential to address some of these inequalities through localized management and services. However, DMHIS's effectiveness varies widely from place to place; some districts have done better than others in enrollment, service provision, and financial management. This variation, however, only serves to aggravate spatial imbalances in the NHIS (NHIA, 2018).

Geographical equity should be a consideration in the effective delivery of National Health Insurance Scheme. Nations cannot be equitable without their citizens being equitable. However, ensuring a more equitable distribution of healthcare resources, bolstering infrastructure for rural areas, and enhancing the capabilities of rural healthcare facilities are key to minimizing these shortages. By addressing disparities in access and quality of services, a more equitable healthcare system would not only enhance the health outcomes for those living in remote areas but also contribute to a more resilient and efficiently functioning National Health Insurance Scheme (NHIS).

2.2.4.7.5 Fraud and Abuse

Fraud and abuse are two of the greatest threats to the National Health Insurance Scheme (NHIS) in Ghana, placing the scheme’s financial sustainability at risk and adversely affecting public

trust. Such abuses occur in varying forms, including but not limited to, the false claims submitted by healthcare providers, altering membership records, and misuse of health services by the members with insurance. Combatting fraud and abuse is essential to ensuring the integrity and effectiveness of the NHIS.

Commonly, healthcare providers submit false or inflated claims to the NHIS for nonsensical health services. This scenario literally sucks the blood out of the funds of the scheme which could be utilized for improving healthcare services. A study by Mensah et al. (2010) revealed that fraudulent claims by providers were the widespread forms of abuse in NHIS, contributing to considerable financial losses annually. These practices not only drain the funds of the scheme but also lead to a dilution of the quality of care, as treatment providers would prioritize the highest claims over other forms of necessary and appropriate treatment.

Another major issue is membership records manipulation. However, some healthcare facilities and National Health Insurance Schemes (NHIS) agents have been discovered to generate false enrollment or duplicate records in an effort to artificially inflate the registered members. It is a practice that is often driven by the promise of financial incentives associated with enrolees. The scheme pays benefits on behalf of fictitious members, wasting the scheme's resources. According to the World Bank (2016), the NHIS had reported several instances of record manipulation which resulted in financial losses and called into question the credibility of the scheme.

Fraud and abuse are also fuelled by insured members accessing inappropriate health services. Certain members might also overuse services by going to a doctor for an ailment that can be treated without professional services, only because they do not have to treat this expense out of their own pocket. This phenomenon, called moral hazard, causes undue strain on health care resources and increases the cost of the scheme overall. As an example, in a study by Kotoh et

al. According to (2018), NHIS members displayed moral hazard behaviors that recorded utilization rates higher than expected, and that is one of the reasons for the financial struggles of the scheme.

Weak regulatory and oversight mechanisms amplify fraud and abuse within the NHIS. The NHIS is taking measures to detect and prevent fraud with periodic audits and the creation of a claims processing center. Yet these measures have largely been ineffective owing to inadequate enforcement, limited technological infrastructure, and a dearth of skilled personnel to undertake rigorous investigations. A publication from the Ghana National Health Insurance Authority (2018) recommended the establishment of more robust regulatory frameworks and better surveillance systems to counter fraudulent activities.

Fraud and abuse affect not only financial loss. It also has effect on the quality of care for real NHIS members. When fraud siphons money from us there is less money to pay legitimate claims and invest in health care infrastructure & services. This may result in the delay of payments due to health care providers, which impacts the willingness of providers to take part in the NHIS and reduces the quality of care provided. Furthermore, pervasive fraud and abuse lead to a loss of public trust in the NHIS and threaten to limit the scheme's coverage and support.

Anit-fraud and abuse measures in NHIS need to be addressed comprehensively. With this, the NHIS needs to be empowered to properly carry out its regulatory and oversight mandate. This involves creating more rigorous verification processes, strengthening data management systems to identify anomalies, and auditing more often and more thoroughly. There must be severe punishment for those who are convicted of fraudulent activity. Awareness campaigns for both providers and members regarding the impact of fraud and the value of behaving

ethically are additional factors that can help to rid us of many of the worries associated with this type of crime.

2.2.4.7.6 Flaws in Policy and Administration

One of the key challenges that the NHIS faced in Ghana is that, administration and policy flaws pose serious risks due to its impact on the sustainability and success of the scheme. These challenges result in inefficiencies and reduced quality of service delivery which affects public confidence in this scheme.

Health insurance policies are highly subject to inconsistencies and variations. The NHIS has gone through various rounds of policy change since its establishment, sometimes for the necessary purpose of adjustment, but these have generated a lot of confusion and instability. Frequent variations in premium rates, benefits packages, and reimbursement processes can interrupt service delivery and make it harder to run the scheme. Agyepong and Adjei (2008) emphasize that the frequent changes in policy have created uncertainties among providers and beneficiaries distrust and non-participation in the scheme.

Another major challenge of the NHIS is administrative inefficiencies. This is because claims and reimbursement to healthcare providers were delayed due to bureaucracy within NHIS. Delays of this kind can create financial problems for providers who, as a result, may become reluctant to participate in the scheme or supply services to NHIS beneficiaries. With much of the reasoning explaining how displacement can influence these climate-induced malnutritions, Sodzi-Tettey et al. (2012) research also identified administrative bottlenecks, including slow processing times and complex paperwork, as significant sources of frustration for both healthcare providers and beneficiaries.

The administrative challenges of the NHIS are also a product of its governance structure. Since the NHIS is decentralized, DMHIS are not under any centralized control, hence, the nature of quality and efficient service delivery may differ across the regions. While some districts may have better administrative capabilities and resources, others may struggle with inadequate staffing and poor management practices. It may cause unequal access to health care services as well as the differences in the quality of services provided to NHIS members (Witter & Garshong, 2009).

Administrative weaknesses of the NHIS are compounded by issues of transparency and accountability. Evidence shows that there have been allegations of mismanagement and improper financial oversight, which seriously devalue the credibility and financial viability of the scheme. A few examples include: a report released by the Ghana Audit Service (2017) uncovered discrepancies in financial records and instances of funds being misappropriated. Such problems cost valuable resources and undermine the public's trust in the NHIS, which can ultimately result in lower enrollment and participation rates.

Another burning administrative gap was poor data management systems. This calls for strict data management so that NHIS performance can be monitored, the health impact of interventions evaluated, and policy decisions informed. Unfortunately, NHIS has had poor and obsolete data management systems that have made accurate tracking of enrollments, claims and reimbursements difficult. This causes inefficiencies that lead to errors, fraud, and difficulty in evaluating the scheme's overall effectiveness. According to Dalaba et al. (2012), improving data management systems are critical to the performance and transparency of NHIS.

Policy and administrative errors seriously undermine the NHIS's effectiveness in delivering health care services that are both reliable and equitable. The solution to these challenges lies in an expansive reform agenda that stabilizes policy boundaries, rationalizes administrative

processes, adjusts governance mechanisms, widens fiscal transparency, and updates data management systems. Overall, this requires implementing specific reforms to create a more responsive and accountable NHIS that serves the health needs of all Ghanaians.

2.2.5 Healthcare Outcomes under NHIS

Since the introduction of the National Health Insurance Scheme (NHIS) in Ghana in 2003, it has played a significant role in determining healthcare outcomes. The NHIS was primarily aimed at getting all citizens access to health services and to improve public health outcomes. The NHIS members have been significantly more likely than non-members to use a range of healthcare services over time, by sector and despite increased out-of-pocket expenditures, which has resulted in improved health outcomes in areas like mothers and children, infectious diseases, and chronic diseases (Blanchet et al., 2012).

For the NHIS, one of the major improvements in health outcomes is that it has reduced maternal and child mortality rates. The program has opened access to critical maternal health services such as antenatal care, skilled birth attendance and postnatal care that can prevent complications of pregnancy and delivery. Research on the NHIS indicates that mothers enrolled in the NHIS receive timely and more adequate maternal care, which in turn contributes to better health outcomes for mothers and their infants. For example, Wang et al. (2017), NHIS enrollment was associated with a significant reduction in maternal mortality ratios and improved infant health indicators including weight at birth and immunization coverage.

The NHIS has also significantly assisted in curtailing infectious diseases, especially in addressing the incidence and severity of malaria, HIV/AIDS and tuberculosis. The coverage offered by the NHIS has improved access to critical medications and therapies for these diseases. One of the most prevalent diseases in Ghana is malaria but the recent decline in cases

and deaths is attributed to improved access to and availability of antimalarial drugs and preventive measures prescribed under the NHIS. Likewise, the scheme has promoted access to antiretroviral therapy (ART) for people living with HIV/AIDS, leading to better health outcomes and quality of life for these people (Agbanyo, 2020).

Besides infectious diseases, there are strong evidence that the NHIS has contributed to the management of chronic non-communicable diseases (NCDs) such as hypertension, diabetes, and cardiovascular diseases. These health issues are chronic and need ongoing management and frequent visits to a medical professional, which can take a toll on patients' wallets. The NHIS lifts this burden by covering necessary medications, preventive visits that help detect issues early, and specialty care for chronic illnesses. Patients with chronic diseases tend to be more compliant to treatment regimens and better adhere to self-management techniques which translates to better health outcomes and fewer complication (Kotoh et al., 2018).

While NHIS has been successful in improving health outcomes, there are still challenges for the health system in Ghana. Even though healthcare access is now more widely available and theoretically affordable, in practice, geographic inequities remain, with rural and underserved areas facing limitations in service availability and quality of care. However, although access to healthcare services has increased among many Ghanaian citizens, the challenges presented by the NHIS indicate that benefits are not evenly distributed across the population. Especially in these regions, barriers to quality care access can lead to poor health outcomes for residents. A study by Dalaba et al. investigates into the implication of the availability of quality services for the outcome of the NHIS by observing the health condition of people under the NHIS. The success of the NHIS in improving health outcomes is dependent on the availability and quality of services that the NHIS covers, and this may vary greatly from one place in the country to another.

In general, the NHIS has played a key role in improving health care outcomes in Ghana, especially in major primary health care areas such as maternal and child health, infectious disease control and management, and chronic disease care. Nonetheless, to realize the maximum potential of the scheme for improving health outcomes for all Ghanaians, it will be important to pay attention to the persistent issues of service coverage, geographical inequities and quality of care.

2.2.6 Status of Equity Access to Healthcare in Ghana under NHIS

A fundamental objective of Ghana's National Health Insurance Scheme (NHIS) is equity in access to healthcare so that all citizens (irrespective of their socio-economic status, geographic or demography characteristics) should have access to the necessary healthcare service. However, whether or not the NHIS has truly achieved equitable access to healthcare is a matter of debate. Despite progress, there are still significant population disparities in health care access and cost, and there are still significant segments of the population that don't have access to health care that other segments do.

One of the key areas where equity challenges are evident is in geographic access to healthcare. Most healthcare facilities, particularly for urban areas like Accra or Kumasi, are higher than rural areas, both with a standardized health infrastructure and major healthcare providers. This is in stark contrast to rural and remote areas where health care services are often limited, inadequate, and under-resourced. Thus, despite enrolees in the NHIS, rural dwellers encounter considerable hurdles to use of healthcare services under the scheme. A study by Dixon et al. (2014) have also pointed out that the under-utilization of healthcare services among the rural population in Ghana is due to inequitable health resources distribution, as they have poor access to healthcare facilities unlike their colleagues in urban cities.

Social and economic differentials also influence equity in the access to health care services under the NHIS. While the scheme was specifically targeted to be pro-poor, its implementation has been shown to disproportionately encourage enrollment and utilization by the poor. The price of premiums, while modest, is still a challenge to the very poorest households, especially for people in the informal sector who have to pay 100% of the premium up front. And, there are even indirect costs tied to getting healthcare – such as transportation costs and lost income, which place a disproportionate burden on low-income people. Research by Kotoh et al. (2018)

found that wealthier individuals are more likely to be enrolled in the NHIS and to utilize healthcare services, suggesting that the scheme has not completely delivered on its promise of eliminating socio-economic barriers to healthcare access.

There are also gender inequalities in access to healthcare under the NHIS. Cultural norms, low level of education and economic dependence on male members of the family subject women, especially those living in rural areas, to certain difficulties while accessing appropriate health care services. Such factors may restrict women's autonomy over both healthcare decisions and access to care. Women are at a disadvantage because of geographical as well as non-geographical barriers to access NHIS services including distance, non-availability of female health workers, and societal norms. A study by Ganle et al. (2014) noted that there are still concerns about gender-based disparities in access to maternal health services despite improvements in NHIS.

The imbalances in healthcare access make the equity assessment more complex, as ethnic and regional disparities also impact access to care availability within the NHIS. Residents of certain areas, especially in the north of Ghana, have been historically marginalized and received less attention with regards to health infrastructure and services. In addition, there are often higher levels of poverty, lower education rates and poorer health outcomes compared with other areas of the country. The NHIS has taken steps to bridge these disparities, yet gaps remain. For example, a report by Wang et al. (2017), the northern part of the country still trails behind in terms of NHIS coverage and healthcare utilization, suggesting that the biggest fight for achieving regional equity remains.

However, despite these challenges, NHIS has made impressive efforts in improving equity in access to health care services. The plan has increased coverage to millions of Ghanaians who did not have access to affordable healthcare and has also contributed to decreasing out-of-

pocket expenses for healthcare services. Despite this trend, geographic, socio-economic, gender, and ethnic disparities still exist, which necessitate decisional level approaches to reduce underlining contributors to healthcare access inequity. Reinforcing the NHIS's equity orientation, especially by working proactively to engage and serve disadvantaged groups, aligns with the scheme's universal health coverage mandate, but it risks entrenching disparities in coverage.

2.2.7 Dimensions of Equity Access to Healthcare under NHIS

Equity in access to health care is a multidimensional concept comprising multiple dimensions, each reflecting a different element of fairness and justice in the provision of health care services. In a National Health Insurance Scheme (NHIS) environment like Ghana, equity in healthcare access extends beyond coverage and relates to the utilization of healthcare service, where every individual, irrespective of their socio-economic status, geographic location or demographic features can access services/ health services based on need and not their ability to pay. These dimensions include equality of utilization based on need, equality of opportunity/access, equality of choice sets, equality of access among more or less advantaged social groups, and equality of outcomes. These dimensions are an important part of how NHIS fulfils its stated aim of bringing equality to healthcare access for all Ghanaians.

2.2.7.1 Equality of Utilization Based on Need

Equality of utilization based on need is a central tenet of equity in healthcare, which holds that individuals should access healthcare services based on their health requirements rather than their socio-economic status, geographic location, or other non-health-related factors. This dimension is concerned with achieving equity in health and the provision of health care in

Ghana's National Health Insurance Scheme (NHIS) to achieve equity in health and for health care to meet individuals' health needs (Dixon et al., 2018).

In the NHIS, equitable utilization by need states that people with higher levels of health need, such as those suffering from chronic illnesses or those with conditions that need ongoing medical care, should have higher utilization. The NHIS allows this latitude because it sets no limits on hospital attendance and covers a far wider range of services, including those for chronic diseases like diabetes and hypertension, which require periodic medical input. This system allows for patients with a higher health care service demand to receive more services which reflects healthcare services usage based on patients' health status needs (Kotoh et al., 2018).

This principle is also crucial in ensuring that vulnerable populations, such as pregnant women, receive the care they require. For example, the NHIS provides comprehensive maternal health services, including antenatal care, skilled delivery, and postnatal care, ensuring that women utilize healthcare services according to their specific reproductive health needs. This focus on need-based utilization has been critical to improving maternal and infant health outcomes in Ghana by ensuring that women receive the necessary services throughout the pregnancy and postpartum period (Alhassan et al., 2016).

Preventive healthcare is another area where equality of utilization based on need is emphasized under the NHIS. Key preventive services like immunizations and screenings are covered by the plan, which means people can use these classes to stay well. With the NHIS removing financial barriers to preventive care, it motivates patients to utilize health services before their health issues escalate and service use is modelled to preventive health needs. Children are routinely vaccinated against major diseases, and adults are urged to be screened for diseases

such as hypertension, all of which contribute to optimal public health and the prevention of disease progression (Ghana Health Service, 2017).

The NHIS also seeks to meet the particular needs of vulnerable populations, like the elderly and disabled, by providing them exemptions from premium payments, making healthcare services more available for them. They tend to have higher needs for frequent medical care and access to specialized services. The National Health Insurance system (NHIS) addresses these needs through the coverage of essential treatments and services, promoting equity in healthcare utilization according to individual health needs. By using this approach, NHIS can ensure that all health care members, regardless of their vulnerability, have access to the care they require (Kotoh et al., 2018).

Equality of utilization based on need is a foundational principle in the NHIS, ensuring that healthcare services are provided fairly and equitably. By aligning service utilization with health needs, the NHIS helps promote a more equitable healthcare system in which access is determined by health needs rather than SES or geographic location. This contributes to individual health outcomes while also promoting public health in Ghana (Dixon et al., 2018).

2.2.7.2 Equality of Opportunity/Access

Equity of opportunity or access refers to the principle that healthcare should be available equally for all individuals irrespective of socio-economic status, geographic location or any other demographic factor. This component is essential for covering the costs of healthcare services received by every Ghanaian, regardless of their background, to obtain necessary healthcare services when required under Ghana's National Health Insurance Scheme (NHIS) (Dixon et al., 2018).

Equality of opportunity is embedded in the NHIS as both populations and interventions have equal opportunities to use the scheme since the NHIS is nationally based so any Ghanaian can access it and have the right to enrol in the insurance scheme and use a standard package of service delivery. By adopting a universal system, they aim to combine all residents under one health care plan (WHO 2013). Income, location, or social class should not pose a barrier to receiving the necessary treatment, in their view, and thus a universal approach is promoted to create a more equitable health care system. There are measures to provide lower premiums (e.g., for people working in the informal sector) and to make provision for vulnerable groups (elderly and children) in the NHIS and to ensure that the payment of required fees will not prevent access to essential healthcare services (Kotoh et al., 2018).

Geographic equity of access is another key piece of this dimension. Despite the NHIS's mission to deliver equal access nationwide, inherent differences in healthcare infrastructure along urban-rural lines create obstacles. This is because urban health-care systems typically work better than rural health-care systems do; there are more urban health-care providers, making access to care easier. However, many rural areas lack adequate health facilities and even where the NHIS has a facility in the vicinity, it may not be able to cope with the health needs of the population as a whole. To this end, the NHIS has rolled out various initiatives including mobile clinics and outreach programs to increase access in far-flung areas and ensure equal opportunities for rural populations to access healthcare services (Alhassan et al., 2016).

Access to care under the NHIS is also strongly determined by socio-economic factors. While the plan is intended to be inclusive, those with more income generally gain more access to healthcare services. This is because the indirect costs related to accessing health, such as getting to the facility, taking time off work and paying for additional prescription drugs not covered under the NHIS, are incurred by the richer individuals who can afford them. These challenges

aside, the NHIS has made great progress in ameliorating the effects of socio-economic disparities on access to care by subsidising premiums for low-income citizens and providing exemptions for vulnerable segments (Dixon et al., 2018).

Equality of access is also influenced by cultural and social factors. Certain groups, like women and children, may be restricted from accessing healthcare services in rural and conservative areas due to cultural barriers and social norms. To combat this issue, the NHIS has to promote health education and awareness campaigns, aligning with cultural initiatives to ensure everyone in the country adopts healthcare services. Such efforts are critical in guaranteeing that cultural barriers do not obstruct equal access to health care under the NHIS (Ganle et al., 2014).

2.2.7.3 Equality of Choice Sets

Equality of choice in health care means that everyone should have access to approximately the same options with respect to their health and care. This dimension of equity highlights the need for beneficiaries within the context of Ghana's National Health Insurance Scheme (NHIS) to access a wide and varied range of healthcare providers and services that match their unique health needs and preferences (Kotoh et al., 2018).

A range of public, private and faith-based facilities, accredited to ensure equal choice sets is permitted under the NHIS. This diverse network of providers allows NHIS members the freedom to choose where to receive care, at a local clinic, at a regional hospital, or at a specialized private facility. The NHIS provides a range of options, empowering patients to make their own care decisions and facilitating the delivery of care that aligns with individual medical conditions and patient preferences (Blanchet et al., 2012).

An important dimension of equality of choice sets is the range of health services which the NHIS now covers. This scheme provides a wide range of services from basic outpatient care

and emergency services to more expensive treatments, such as surgery and maternal healthcare in the form of a very comprehensive benefit package. Such coverage means members can access a range of health care services, so they're free to seek care for any health concern. This is particularly relevant for improving equality of choice sets because it focuses on equality of access to services for all members, including those who need maternity care, preventive services, and chronic disease management within the NHIS benefits package (Dixon et al., 2018).

Geography is also an important consideration for equality of sets of choice. The NHIS seeks to establish uniform access to health providers and services among members in the various regions of Ghana. Although urban areas tend to be serviced by a greater number of hospitals and doctors, there are initiatives to dig deep into those remote areas and have accredited providers present. This expansion is critical to ensure that our NHIS members, no matter where they are at, will have a similar range of health providers to choose from. Mobile clinics and outreach programs advance access to healthcare in such zones, hence improving equal access to decision of healthcare supplier (Ghana Health Service, 2017).

Equality of choice sets also includes access to specialized care. The NHIS provides various specialized services, including diagnostics and surgery, starting from treatment for chronic conditions to addressing more complex health needs. Having access to specialized care is essential to ensure that all NHIS members, especially patients with specific diseases, receive the necessary care. The NHIS expands the provision of health services beyond primary care through its package of specialized services, thus granting members access to gradually more specialized treatments and care (Alhassan et al., 2016).

Additionally, the concept of equality of choice is about the quality of care individuals receive from various healthcare providers. Because all providers participating in the NHIS are

accredited, the NHIS tends to use the same terms based on NHIS accreditation, which generally creates a uniform approach to health care services. This is important as it helps establish a standard of treatment so NHIS members know what to expect regardless of where they seek treatment. This also guarantees that members do not have to compromise on quality for convenience, as high-quality treatment is available at various facilities (Mensah et al., 2010).

2.2.7.4 Equity of Access among More or Less Privileged Social Groups

Equality of access is one of the key elements in healthcare equity, in its essence means 'no discrimination between more or less advantaged social groups' which poorer groups could not be excluded from getting access to healthcare services. This principle is vital in addressing inclusiveness and inequities in the population within the ambit of Ghana's National Health Insurance Scheme (NHIS) for universal coverage.

The NHIS had a deep-rooted focus on providing health coverage to remove financial barriers to health access, especially among disadvantaged social groups. The scheme provides subsidies to premiums for the low-income population as well as exemptions for vulnerable populations, like the elderly, children and pregnant women. Such actions are aimed to enable less privileged groups to attain of the same healthcare services as more affluent individuals and thus minimize health disparities across socioeconomic lines (Kotoh et al., 2018). The idea is that this will lead to a fairer health system, in which the capacity to pay does not determine if a person receives care.

However, there are individual differences in the use of health services based on socio-economic status despite these efforts, so access cannot be assumed to be equal. Wealthier people are more able to navigate the health care system, access higher-quality health care, and manage indirect costs of health care like the cost of transport and lost work. But less disadvantaged

groups may not have resources to cover these expenses, disadvantaging them from the NHIS completely. Even when enrolled in the NHIS, low-income individuals may avoid or delay seeking care due to concerns about incurring additional costs or a lack of knowledge about their coverage (Blanchet et al., 2012).

Geographic differences also increase the access inequality among social groups. Urban regions are generally wealthier than rural areas and are home to more health facilities and health professionals per unit population, as well as better infrastructure overall. It is in stark contrast to rural areas, where medical facilities are often lacking and residents are required to travel great distances for healthcare. These geographic impediments disproportionately impact less privileged social classes more likely to reside in rural areas. Despite ongoing initiatives such as mobile clinics and community health interventions by the NHIS to address these disparities, considerable challenges exist in providing equitable access to healthcare services for all Ghanaians, regardless of geographical location (Ghana Health Service, 2017).

The equality of access is related to cultural and social factors as well. For instance, women may experience gender norms, cultural norms about education, and economic dependence on males in the household, leading to greater structural barriers to accessing healthcare, particularly in rural and conservative communities. These restrictions can restrict women's independence in accessing care, even when they have higher health needs. The NHIS has made some advances in this area, by covering some maternal and reproductive health services, but cultural barriers remain a critical concern to equal access for all social groups by accepter population (Ganle et al., 2016).

Indeed, the aspects of equality of access within the NHIS also has wider implications on health policy and planning. Understanding how different social groups utilize the NHIS will help with targeted interventions addressing specific barriers to access. In particular, policies that

improve outreach in rural areas or provide asymmetrical assistance for women and low income families are crucial for closing the access gap. These specific approaches further seek to achieve the aims of the NHIS, ultimately working towards achieving universal health coverage in Ghana (Kotoh et al., 2018).

2.2.7.5 Equality of Outcomes

Equality of outcomes in health care means that all people should have similar health status, regardless of their socio-economic status, geographical location, ethnicity or gender. This aspect of equity is not merely about equal access to healthcare services, but about whether the service leads to similar health improvements across different social groups. Paying attention to equality of outcomes as a core principle of the National Health Insurance Scheme (NHIS) in Ghana will go a long way in reducing health disparities among citizens and promoting overall population health.

The aim of the NHIS was to promote universal health coverage and improve the health status of all Ghanaians. The NHIS aims to help beneficiaries, regardless of socioeconomic class in the large socioeconomic gradient, to achieve similar health benefits through a basic benefit package that includes all health services, maternal and child health systems, treatment of chronic diseases, and preventive health services. The scheme's expansion of maternal healthcare services, for instance, has been critical for lowering maternal and infant mortality across the country, and in regions where these indicators used to be among the highest in the world (Alhassan et al., 2016).

What does it mean to live in the era of the NHIS? In some ways, it means that we now occupy a society with vastly improved health outcomes, but one in which difference and disparity remain. A major driver of these inequities are the health care received by the NHIS

beneficiaries. While the scheme is meant to offer equal access to healthcare, the quality of care can differ dramatically by geography and by public versus private provider. When comparing health outcomes of patients at facility-level, it is found patients residing in urban areas and those accessing care through private facilities had better health outcomes than their counterparts in rural areas or public facilities with more limited resources (Blanchet et al., 2012). Despite having similar access to healthcare services, this variation in quality of care can cause imbalances in health outcomes.

Socio economic status also factor a lot in health outcomes under NHIS. Even though it is a scheme to save people from health-care costs, those who have more wealth can afford better quality health care, pay more out-of-pocket expenses, and lead a healthy lifestyle, which are all beneficial for health. Lower-SES individuals may experience diminished health outcomes, in this case because they face an economic barrier to access even under the NHIS. Dixon et al. (2018) noted that wealthier NHIS members reported better health outcomes than their poorer counterparts, indicating that socio-eco status can significantly influence one's health outcomes even in the presence of health insurance.

Another major predictor of health outcomes in the NHIS is geographic location. In Ghana, as a developing country; the rural communities, where health infrastructure and resource provisions are usually concentrated at the urban areas, have poorer health than the urban areas in general. Rural disparities can be attributed partly to the low availability of specialized care, the longer distances travelled to access care and lower health literacy in this geographic region. The National Health Insurance Scheme (NHIS) intervention and policies have sought inclusive solutions such as outreach through mobile clinics and community health programs; nevertheless, the rural-urban health disparity persists as a major obstruction on the path to equity of outcomes (Ghana Health Service, 2017).

Cultural and social factors further influence health outcomes among different social groups. For instance, women in certain communities may face barriers to accessing healthcare due to gender norms or economic dependence, leading to poorer health outcomes compared to men. The NHIS has attempted to mitigate these disparities by including services specifically targeted at women and children, but cultural barriers still result in unequal health outcomes. A study by Ganle et al. (2016) found that women in rural Ghana were less likely to access and benefit from maternal health services under the NHIS, leading to higher rates of maternal morbidity and mortality compared to women in urban areas.

Solving the issue of equality of outcomes requires a sophisticated set of efforts, involving much more than consideration of access to healthcare services. This means that no matter their socio-economic status, location, or cultural background, all beneficiaries have access to quality services that address their specific health needs. In addition, specific initiatives should be put into place to tackle the particular hurdles experienced by marginalized peoples, including strengthening healthcare systems in rural communities, modernizing public institutions, and investing in preventative medicine and health literacy initiatives. These strategies are critical for mitigating health inequities and guaranteeing that the NHIS meets its intended purpose of realizing equitable health outcomes for all citizens of Ghana (Kotoh et al., 2018).

2.2.8 Relationship between NHIS and Equity Access to Healthcare in Ghana

The National Health Insurance Scheme (NHIS) is a mechanism put in place to cover the healthcare needs of Ghanaians in a more equitable manner, highlighting a commitment to cater for health for all in order to reduce the inequities that existed in the health sector in terms of access, coverage and affordability of health services. Since its inception, the NHIS revolutionized the health system landscape of Ghana, whereby the difference in insurance coverage was perceptibly translated into healthcare access. That relationship has been subject

to much research, with different findings noting the successes and challenges of the scheme in advancing equity.

One of the most significant relationships between the NHIS and equity in healthcare access is the expansion of healthcare services to previously underserved populations. As a result, the NHIS has led to a rise in the number of healthcare service providers and facilities as well, especially in rural areas that did not have access to healthcare before. For example, work by Fenny et al. (2016) showed that NHIS coverage significantly increased the likelihood of seeking medical care in needed by narrowing the urban-rural gap of service utilization. This shows an increasing trend of the use of NHIS which means the NHIS has contributed significantly to improve equity in accessibility to health services in Ghana. It has been noted that health services at health facilities in both rural and urban areas are utilized for similar illness conditions.

The NHIS has had other effects on the financial access to healthcare services, which is another important element of equity. Through insurance coverage, the NHIS reduces the direct costs of care and thus allows an increasing number of Ghanaians to afford the care they need. A study by Nguyen et al. (2011) found NHIS enrolees that sought care were less likely to be deterred by treatment costs than their uninsured counterparts. This association between NHIS enrolment and increased health service used shows the scheme's effect on decreasing financial barriers and promoting equity in access to healthcare.

Additionally, the NHIS has positively impacted the use of preventative services that are directly related to better health outcomes down the line and a reduction in health disparity. A study by Kusi et al. (2015) showed that NHIS coverage was associated with increased rates of immunization and antenatal care visits; this effect was pronounced among populations that had previously low access to these services. Thus, NHIS's role in promoting equity by providing

basic health services to all nature of people without considering any socio-economic status and geographical factors.

The NHIS has not only improved service utilisation but has also been associated with improved health outcomes particularly in maternal and child health. Research by Ayimbillah et al. (2011) found that NHIS enrollment was associated with greater levels of attendance at skilled birth and lower levels of the infant mortality rate. A growing body of evidence points to the impact of the NHIS on increased healthcare utilization, improved health outcomes and reduction of health disparities.

Evidence on the link between NHIS and equity in healthcare access is also reflected in the expansion of coverage among marginalized populations. Research indicates that the NHIS has been effective in enrolling persons from diverse socio-economic backgrounds, including traditionally marginalised groups. Kusi et al. (2015) found that the NHIS has resulted in a substantial increase in access to healthcare services, especially among women and children, who are traditionally more disadvantaged in terms of access to care. As the coverage is comprehensive, it promotes equality in health care, as it allows everyone at the grassroots level to access the health services offered under the policy.

2.2.9 Quality of Healthcare under NHIS

The question of how well the NHIS in Ghana meets the challenge of achieving quality in terms of the standards of accessibility, satisfaction and effectiveness has been identified as a fundamental issue facing the health care system. For the NHIS to play its mediating role in securing positive health outcomes in the Ghanaian population, access to quality healthcare is critically important. In this context, quality healthcare is defined as the delivery of services that are timely, effective, efficient, equitable, and focused on patients (Alhassan et al., 2016).

Under the NHIS framework, quality healthcare is intricately linked with the outcome of medical treatment and action. The realization of improved health outcome for patients is a major determinant of effective healthcare services under the NHIS. This includes the well-controlled management of chronic conditions, productive maternal and child health outcomes and preventive interventions that reduce the amount of disease. For example, there is evidence that the NHIS has played a significant role in improving maternal health as shown by increased use of skilled birth attendants and access to crucial maternal healthcare services (Mensah et al., 2010; Blanchet et al., 2012).

The other essential component of healthcare quality in the context of the NHIS is Efficiency. Health-care efficiency refers to providing services in a manner that maximizes resources used in delivery without reducing the quality of delivery. That is especially critical in the NHIS, which draws money from a variety of sources, including premiums and government payments. The optimal utilization of these resources allows a greater number of individuals to avail themselves of these high-quality healthcare services. Additionally, quality healthcare means avoiding unnecessary procedures and directing resources to the most needed areas (Mensah et al., 2010).

Safety has always been at the core of how we manage a quality health delivery system under the NHIS. These services refrain from causing unnecessary damage to patients, thus preventing errors, medical mishaps, infections, and other types of complications. The NHIS credential the healthcare providers on the safety standards, protocols, etc. of healthcare providers; which are indispensable to maintain the trust of the patients as well as offer of healthcare services under the scheme to be trusted and reliable (Blanchet et al., 2012). This focus on safety helps to prevent adverse health outcomes and contributes to the overall quality of care.

Another dimension of health care quality under NHIS should be patient satisfaction. Patient satisfaction is correlated with the quality of care, the communication between patients and the healthcare system, and how responsive the healthcare system is to patient needs. The NHIS aims to provide healthcare that meets the expectations and needs of its members, which is crucial for maintaining the scheme's credibility and ensuring that more people enrol and remain enrolled. Patient satisfaction surveys and feedback mechanisms are often used to assess the quality of care and to make necessary improvements in service delivery (Kotoh et al., 2018).

2.2.10 Dimensions of Quality Healthcare in Ghana

The concept of quality in healthcare is multifaceted, encompassing various dimensions that collectively determine how well healthcare services meet the needs and expectations of patients. The SERVQUAL model is often used as a framework to assess and improve healthcare service quality. SERVQUAL, originally developed for service industries, has been adapted for healthcare and focuses on five key dimensions: tangibles, reliability, responsiveness, assurance, and empathy. These dimensions are critical in evaluating the overall patient experience and ensuring that healthcare services are not only effective but also delivered in a manner that enhances patient satisfaction and trust.

2.2.10.1 Tangibles

Tangibles are the physical components of the healthcare service including the infrastructure, equipment, clothing of the personnel, and the environment in which the healthcare is provided (Amporfro et al., 2021). In the context of the National Health Insurance Scheme (NHIS) in Ghana, tangibles are very important in determining service quality in the perception of patients. All this is often taken as a sign of good care — the existence of modern, well-kept facilities and up-to-date medical tools. The state of the healthcare facility often affects their confidence

in the treatment they receive (Kassim et al., 2023). Studies have shown that better facilities and cleanliness are associated with better care by patients, indicating the importance of tangibles in healthcare delivery (Mensah et al., 2010).

Yet, there is an enormous variation in healthcare infrastructure quality across Ghana, and particularly between urban and rural areas. Urban regions have always had more well-equipped facilities because rural regions tend to lack basic medical equipment and have poorly maintained infrastructure (Gobah and Liang, 2011). These disparities could yield conflicting perceptions of the quality of services received by NHIS beneficiaries such that NHIS beneficiaries in rural areas may be less satisfied than their urban counterparts owing to the poorer condition of health facilities. Studies have shown that the quality of physical infrastructure is positively associated with patients' decision to use a clinic or hospital maximizing the utilization of these resources (Kassim et al., 2023).

Dress code and professionalism of health care personnel is also part of tangibles dimension (Kassim et al., 2023). The appearance of doctors and nurses and other healthcare staff — including uniforms and general demeanour also affect patients' perceptions of quality. In the Ghanaian context, it is believed that professionals are cleaner and well-groomed which shall positively affect the way patients react to professional attitude on the patients under the NHIS. Poor training of staff and inadequate resources in some NHIS-covered facilities could lead to unprofessionalism, which can have negative effects on patient perceptions and reduce the perceived quality of care (Afari et al., 2014; Mensah et al., 2010).

In addition, the availability and condition of medical supplies and equipment are important tangibles impacting the quality of healthcare services. The NHIS provides coverage for various treatments, provided that it is effective, which depends on the accessibility of the required equipment and supplies. Rampant shortages of essential medical supplies and outdated

or malfunctioning equipment are widespread problems in many of Ghana's public healthcare facilities, such internal failures can place extreme strain on the quality of care delivered (Adongo et al., 2021). Patients are more likely to express dissatisfaction with their care when they feel the facility does not have the resources to give adequate care (Adongo et al., 2021).

For example, the tangibles dimension includes the physical facility, cleanliness, and the ambience in which healthcare services are delivered, as well as comfort and accessibility. Careful, simple steps are taken to guarantee a clean setting that is free of contamination — not just in the operating room, but also in waiting areas, rooms, and even hallways — contributing to a better patient experience. This is critical with regards to tangibles in the NHIS since public healthcare facilities in Ghana have been known for congestion of patients and poor sanitation (Afari et al., 2014). Research indicates that the factors perceived by patients as cleanliness and comfort, with the same score within the range, significantly correlated with satisfaction with health care, therefore being one of the key factors in assessing the quality of services provided under the NHIS (Badu et al., (2019).

2.2.10.2 Reliability

Reliability is one dimension of service quality with significant importance in the context of health care systems such as NHIS, which ensures the effective delivery of health services in Ghana. It reflects how much patients can rely on getting the care they require, when they require it. Dependable healthcare services provide patients' access to repetitive treatment, precise diagnosis, and consistent follow-ups. Reliability is important for sustaining patient trust and satisfaction in the healthcare system considering the context of the NHIS (Anabila et al., 2019).

Availability, when healthcare services are required, is an essential factor of reliability. The need for improved access to care is particularly acute in rural areas, where health care facilities may be understaffed or poorly resourced and where there have been perverse incentives to keep enrollment low under the NHIS (Mensah et al., 2010). In rural Ghana, research shows that patients frequently experience barriers to constant and dependable health care resources, contributing to the gaps in care and lower patient satisfaction (Adongo et al., 2021). Less than half this population has access to safe and effective medicines, and the healthcare system is plagued by shortages of both drugs and the personnel to prescribe and administer them.

Another key element of reliability is the consistency with which attention is provided. Patients demand the same level of care no matter when or where they receive treatment. But there is evidence of variation in the quality of care at healthcare facilities in Ghana. Anabila et al. (2019) show great disparity of care across public and private healthcare officers, with private facilities providing more reliable and higher quality care. Such inconsistency could also contribute to disparities in health outcomes and compromise the NHIS's overall credibility as an equitable provider of health care.

Timeliness of healthcare services are also an important factor of reliability. The patients depend on the health care system to provide timely interventions, particularly in emergencies. They can result in adverse health outcomes and undermine patient trust in the health care system. Alhassan et al. (2016) raises concerns about the NHIS's timely access to care, especially in emergencies. The reasons for delays are often blamed on overcrowded hospitals, bureaucratic inefficiencies and a lack of health workers. All of these factors combined make it difficult for NHIS to cater to the urgent healthcare needs of the population.

Another issue affecting reliability is the nature of the healthcare coverage provided by NHIS. Although there are multiple service levels included under the scheme, there have been reports

of patients' coverage being suspended or misaligned with what they are receiving (Nguyen et al., 2011). This lack of “follow the rules” can create a significant burden when it comes to patient care such as treatments and medications that might be used by some healthcare facilities yet not by others, potentially leaving a patient confused and open to endless grievance. Kusi et al. (2015) has shown that patients' perceptions of the reliability of the NHIS have been hindered by the variability of coverage and reimbursement policies.

Reliability in healthcare also relates to the accuracy and dependability of medical diagnoses and treatment plans. It should be noted that patients expect healthcare providers to provide accurate diagnosis and effective treatment plans according to the best available evidence. Nevertheless, differences in diagnostic capabilities among healthcare facilities can result in variations in care for patients with these conditions. Fenny et al. (2016) have also highlighted that under-resourced healthcare facilities are known to be sources of diagnostic errors and mismanagement of treatment plans in ways that may undermine the validity of care delivered under the NHIS.

2.2.10.3 Responsiveness

Responsiveness to patient expectations in the sense of the promptness, adequacy, and appropriateness of the care provided by the health system. In the Ghanaian context, responsiveness is an important aspect of service quality in the National Health Insurance Scheme (NHIS) as it contributes greatly to patient satisfaction and perceived effectiveness of healthcare services (Atinga et al., 2019). Having healthcare services that respond to the needs of patients is fundamental to gaining trust in the NHIS leading to increased healthcare utilisation (Amporfro et al., 2021).

A vital component of responsiveness is the timeliness in which the healthcare providers deliver the service. In cases of emergencies or acute health conditions, patients expect to receive timely access to care. But many of these have proven challenging under the NHIS with long waiting times being reported, especially in public healthcare institutions. Research has demonstrated patients typically endure long waits prior to getting treatment, and worse, it can adversely affect their health results and satisfaction with the health care system (Fenny et al., 2016). These tunnelling delays are typically attributed to overcrowded facilities, lack of healthcare staff and bureaucratic inefficiencies that hampered care delivery.

Another important aspect of responsiveness is the availability of health services. That means making sure the types of healthcare services available and covered under the NHIS are adequate to address the varied needs of the patient population. Nevertheless, the coverage of the National Health Insurance Scheme (NHIS) has been called out over worries that it lacks adequate coverage for all patients, especially for specialised care. For example, Dalinjong and Laar (2012) identified that, although basic healthcare services were relatively available with the NHIS, patients seeking advanced care such as complex diagnostics and surgeries encountered many obstacles in receiving appropriate intervention in a timely manner. The result is that patients may not receive the full level of care that they require, which can lead to frustration and lack of hope when seeking treatment.

Efficiency also encapsulates the appropriateness of care, or how well healthcare services are adapted to the specific needs of patients. Overall, NHIS look to equitable provision of healthcare but area wise healthcare provision may differ, at some areas healthcare is handled well while in some areas it needs improvement. For example, Alhassan et al. (2016) emphasized that patients in rural areas had reduced access to personalized approaches and lower-quality care than what was available in urban centers. Data derived from the NHIS may

not accurately depict treatment appropriateness, contributing to a lack of responsiveness from the NHIS in delivering adequate healthcare services to at-risk populations that already encounter barriers to accessing care.

The exchange of information between healthcare providers and patients is an important component of responsiveness. Proper communication helps patients understand their illness, treatment choices and the process of care. Translators or other staff were needed to communicate with patients, but communication problems are still a major challenge under the NHIS. Kotoh et al. (2018) stated that many patients found it especially challenging to comprehend information and directions given by healthcare providers, particularly patients with lower education levels. Poor patient-provider communication results in misunderstandings, misunderstandings imply unfollow-up of the treatment, and unfollowing treatment leads to a poorer health outcome.

Another dimension of responsiveness that affects the quality of care is patient engagement in decision-making. Patients opt in to a course of treatment that is, they choose a path toward an outcome, and patients who engage actively in making decisions about their care are more satisfied with the care they receive and adhere to treatment plans. But in many of the NHIS covered facilities, little attention is paid to including patients in the decision-making process. Baatiema et al. (2016), explains that healthcare providers tend to be paternalistic, deciding what is best for the patient, but not involving them in the conversation about their care options. This loss of autonomy and satisfaction with the healthcare experience can be detrimental to both patients and healthcare providers.

Another aspect of the responsiveness of the NHIS is the physical accessibility of health care services. Accessibility to healthcare facilities needs to be defined in the context that availability of healthcare facilities is different from how easy patients can perceive, visit, and

reach these facilities. Physical accessibility is still an important challenge in some areas of Ghana, particularly in remote and rural areas. According to Dzakpasu et al. (2012), it was common for patients to have to travel great distances in isolated parts of the country to reach their nearest healthcare institution, delaying treatment and decreasing system-wide healthcare responsiveness. These accessibility issues highlight the need for targeted interventions to improve the responsiveness of the NHIS, particularly in underserved areas.

2.2.10.4 Assurance

Healthcare assurance is the certainty of what the patients believe in terms of the skills and professionalism of health providers and in the safety of the health care system. Assurance, in the context of service quality as per the National Health Insurance Scheme (NHIS) of Ghana, is also an important dimension of service quality as it affects patients' trust in the health care system and their intention to use health services. Another important concept is assurance, which consists of the qualifications and skills of health care providers, the adherence of the providers to medical standards and the safety of the health care environment.

Care providers competence is one of key elements of assurance. The trust that doctors, nurses, and other medical staff will provide the right diagnosis and treatment. NHIS has taken strides to ensure that its network healthcare providers undergo proper training and are capable in providing quality services to its members. But health providers have different qualifications and skills in different facilities and regions. Afulani (2015) found that overall urban healthcare providers were more qualified and had more specialized training than rural counterparts. This difference can impact patients' trust in the treatment they obtain, specifically in outlying regions where access to extremely competent health professionals can be constrained.

Assurance also refers to adherence to medical standards and protocols. Patients expect healthcare providers to follow established guidelines and protocols to ensure the safety and effectiveness of the care they receive. The NHIS has implemented accreditation processes to ensure that healthcare facilities meet certain standards before they are allowed to provide services under the scheme. However, there have been concerns about the consistency of these standards across different facilities. Yaya et al. (2017) found that some had medical protocols in place but that, particularly at facilities in remote areas, these were not consistently followed, so here were significant differences in care. This lack of standardization can be detrimental to patient trust in the accuracy and reliability of the healthcare system.

The safety of the healthcare environment is also critical for assuring patients of the quality of care. That includes everything from physical safety in the buildings to preventing medical errors and managing infections. Research indicates that the perception that the environment is safe and well-maintained in healthcare settings increases patients' trust in and use of care (Oppong et al., 2020). Yet persistent challenges still exist in many NHIS-covered facilities such as overcrowding, lack of infection control measures and inadequate sanitation. These issues can undermine patients' faith in the safety of the health care system and lead them to avoid care.

Assurance also pertains to the communication and interpersonal skills of health care providers. Good communication between patients and health care providers is critical for establishing trust and ensuring that patients are confident in the care they receive. Agyepong et al. (2012) found that patients who reported positive interactions with healthcare providers were more likely to trust the healthcare system and adhere to treatment plans. Conversely, poor communication and a lack of empathy from healthcare providers can lead to dissatisfaction and

a lack of confidence in the system. Ensuring that healthcare providers are not only technically competent but also skilled in communication is crucial for enhancing assurance in the NHIS.

Furthermore, the dependability of medical services is integral to patients' reassurance. Patients have to believe that the health care system will provide all the required services after every delay or break. The NHIS has struggled in this space, particularly around availability of essential medications and timely access to care. Oppong et al. (2020) showed that those under patients frequently faced delays to receiving their medications or had to go to several facilities to obtain the necessary services, thus challenging their faith in the system. Ensuring reliable service delivery is essential for maintaining patient trust and assurance.

Last but not least, another key factor that reassures patients about the healthcare system is transparency and accountability. Patients must trust that the health care system is honourable and that their civil liberties are safeguarded. In addition to this, it is essential to improve assurance by ensuring transparency. Thus, providing the patients with reliable information about the benefit package, their entitlements under the NHIS, mechanisms for grievance and complain mechanisms under NHIS. Agyepong et al. (2012) found that transparency is also a key factor in obtaining the confidence among patients in order to ensure that the healthcare system is seen as fair and reliable.

2.2.10.5 Empathy

Empathy in healthcare is defined as the ability of healthcare professionals to go one step further than just listening to their patients and share their feelings. Patient experience is a vital component of healthcare quality; the contribution of patient-to-provider interaction to overall patient satisfaction and treatment compliance is particularly pronounced under the National Health Insurance Scheme (NHIS) in Ghana. Empathy is the human dimension of care and

encompasses not only the technical aspect of care delivery but also the emotional and interpersonal dimensions that facilitate patients being seen, heard, acknowledged, and valued (Ganle, 2014). And an emotional bond brings greater trust and compliance from patients, which is critical for achieving favourable treatment outcomes (Adede et al., 2022).

Empathy is often expressed in healthcare setting in terms of communication and active listening. Patients who believe that their healthcare providers are truly listening to their worries and considering their feelings are more inclined to trust their providers and follow treatment plans. Adede et al. (2022) observed that patients who felt that their healthcare providers were empathetic experienced higher satisfaction with their care and better adherence to prescribed treatment. In line with this, Ganle (2014) found that communication delivered with empathy was also integral as it was identified as a factor that improved the level of patient satisfaction as well as patient loyalty to a healthcare facility.

Besides, it is essential in maintaining patients' satisfaction which is one of the major indicators of healthcare quality since they have been covered under the NHIS. Empathy is one of the main keys of making the patient feel secure, and when patients feel secure they feel respected and cared for and thus their overall healthcare experience significantly improves. Adade et al. (2022) found that patients experiencing high levels of empathy expressed greater satisfaction with their healthcare providers irrespective of clinical outcomes. Oppong et al. (2020) added that absence of empathy can lead to crippling effects such as laxity in communication, which can ensue dire consequences during patient care. Empathy is said to be directly proportional to patient satisfaction, rendering it one of the most important and essential aspects of the entire setting of patient experience.

In addition to improving patient satisfaction, empathy can also lead to better health outcomes. Patients who know their providers understand their emotional and psychological needs will

speak more freely and work together to identify diagnoses and craft treatment plans that are more effective. Ampaw et al. (2020) found that empathetic care led to improved management of chronic conditions because patients were more likely to openly discuss symptoms and comply with treatment regimens. This finding aligns to Agyei (2020) who stated that patients under care that is empathetic are likelier to be engaged with their health care given their resultant health outcomes.

Numerous elements limit the competence of healthcare providers to express empathy, like their education, workload, and the healthcare setting. In Ghana, high workloads and inadequate resources can at times affect the ability of service providers to give empathetic care. Kerasidou (2020) suggested that healthcare providers in overstretched and under-resourced facilities were less likely to show empathetic behaviour, because they were often focused on simply getting through their high patient load. This reflects the findings that Kwame (2023) provided when he indicated that reducing current workloads and improving work environments are keys to enhancing empathy in health care settings.

Also, culture can impact the way empathy is practiced in healthcare settings. Culturally, empathy takes a unique shape here in Ghana. For example, Adomah-Afari (2019) stated that patients from different cultural backgrounds had different expectations for empathy from their healthcare providers. That is to say, where some patients appreciated something along the lines of verbal confirmation of the provider's understanding of their suffering, others felt warmest of all when attention was paid to non-verbal subtleties, such as listening intently and displaying respectful body language. Another consideration issue is that it implies that health-care deliverers should be culturally delicate to empathy, and customize their approach to suit the particular needs of patients (Kerasidou 2020).

2.2.11 Patient Satisfaction and Experience under NHIS

Patient satisfaction and experience are key measures of quality of care particularly under the National Health Insurance Scheme (NHIS) in Ghana. They denote the adequacy of services delivered under the NHIS to patient expectations. Patients' satisfaction is one of the core elements for the proper functioning and sustainability of the NHIS (Mensah et al., 2010; Donabedian, 2005), influencing members' decisions to join or disengage from the scheme. This is important as it has been well-documented that patient satisfaction is an important determinant of health care utilization and if the public perceives the NHIS to be discharging its mandate successfully, it can go a long way to gain their trust.

Perceived quality of care is a major factor influencing patient satisfaction in the NHIS. Patients experience care quality covering provider competency, adequate medical facilities, and effectiveness of the treatments given. More researches indicated that quality of care received by the patient is positively correlated with the patient satisfaction (Mensah et al., 2010; Ayimbillah et al., 2011). For example, patients who receive timely and effective treatment are more likely to report higher levels of satisfaction. According to Ayimbillah et al. (2011), the perceived quality of care is positively associated with patient satisfaction in NHIS-covered facilities.

The behavior and attitudes of healthcare providers are crucial in shaping patient satisfaction and experience under the NHIS. Patients value healthcare providers who demonstrate professionalism, empathy, and respect. Positive interactions with healthcare providers can enhance patients' overall experience and lead to higher satisfaction levels. Research by Agyei et al. (2020) and Kerasidou et al. (2019) highlighted that patients who reported courteous and respectful treatment by healthcare providers were more satisfied with their care. These findings

underscore the importance of interpersonal skills in healthcare and the need for continuous training of healthcare providers in patient-centered care.

Another major determinant of patient satisfaction in the NHIS is improvement in communication between healthcare providers and patients. All of these practices have their own benefit to improve patient experience but the biggest one is clear communication. You are basically making sure that patients are educated about their health, their reasons for hospitalization and what should they expect from it. Studies revealed that improved communication is significantly related to increased levels of patient satisfaction (Ayimbillah et al., 2011) For example, Alhassan et al. (2016) noted that patients would be more satisfied with services delivered under the NHIS when they feel involved in decision-making and well-informed about their care.

The environment of the healthcare facility determines the level of its performance, and the same environment contributes significantly to creating patient satisfaction under the NHIS. Comparing to receiving care in dirty, uncomfortable and poorly maintained environments, patients are far less likely to rate their healthcare experience positively. Attributes of the healthcare facility, such as cleanliness, amenities available to patients as well as the overall atmosphere of care can subsequently influence patients' perceptions of quality of care (Mensah et al., 2010). Ampaw et al. (2020) found a positive correlation between physical environment ratings and overall satisfaction with NHIS provided care.

The efficiency of healthcare services also influences patient satisfaction under the NHIS. Patients anticipate timely access to care and the efficient delivery of services without undue delay. Waiting times and bureaucracy delay can affect patient satisfaction (Anabila et al., 2019) For example Adomah-Afari et al. (2016) highlighted that the patients who had minimal waiting period were more likely to experience smoother process of service delivery which led

them to be satisfied with their overall experience of health care delivery. This indicates that enhancing the efficiency of service delivery can go a long way to improving patient satisfaction under the NHIS.

2.2.12 Factors Affecting Equitable Access to Healthcare under the NHIS in Ghana

2.2.12.1 Financial Barriers

Types of barriers to access can significantly influence equitable access to health care in other systems; however, during long delays in the reimbursement to the health providers a few are systems with the majority of taxes funding, majority of the barriers activity are fundamentally financial in nature. Although the NHIS provides coverage for many medical services, financial hardships remain barriers to accessing health services for the worst off portion of the general public. These barriers are transportation costs, out-of-pocket health expenditure for non-covered medicines by NHIS, and loss of income as a result of time spent seeking care. Dalaba et al. (2014) argued that transportation costs alone can discourage many people, particularly those living in rural areas, from accessing healthcare even when they have NHIS coverage.

Therefore, out-of-pocket expenditure is still high, especially for medications, investigations and treatments that are not included in the NHIS. Specific treatments, investigations, and medications (including some cancer medications) that are not covered by the NHIS can lead to patients paying out-of-pocket (OOP). This is particularly difficult for low-income households, who may forgo essential care if they cannot afford these additional expenses. Blanchet et al. (2012) highlighted that out-of-pocket payments remain a high burden for NHIS members, and this leads to inequity in access to necessary health care services.

Another financial barrier to accessing healthcare is the indirect costs associated with it namely, lost income from the time spent away from their workplace when attending health facilities.

For many Ghanaians, especially those with informal jobs, taking time off to go to a health establishment could mean losing a significant income. The inability to afford medical treatment can lead people to avoid visiting a doctor when they need to do so, worsening health disparities among socio-economic groups. However, according to Gobah and Liang (2011) the fear of losing an income was the most significant reason many NHIS members delayed care seeking which as they indicated increases the severity of disease as well as the costs of healthcare in the future.

Delays in reimbursement to healthcare providers also represent a financial barrier and can indirectly limit patients' access to care. Payment delays from the NHIS can put a strain on healthcare facilities, which may require patients to pay before receiving care, or may limit services altogether. Such scenario may impose an economic burden on both patients and healthcare organisations, hindering access to essential services. Kusi et al. (2015) in a recent study found that delays in NHIS reimbursements have increased patients' out-of-pocket costs because health-care providers tend to externalize their financial costs because of it.

Another major challenge pertains to the financial sustainability of the NHIS itself. The sustainability of the scheme is crucial for ensuring that it continues to provide continuous and comprehensive coverage to all beneficiaries. While with an increasing demand for healthcare services received under the NHIS, a future challenge of the scheme involves how to maintain a sufficient level of funds to offset the cost of all insured services. This places additional economic strain, resulting in the rationing of services or the non-availability of some treatments, impacting the patients who cannot afford other means of care considerably. Aryeetey et al. (2016) indicates that the NHIS's objective of providing equitable health access for all Ghanaians may become elusive due to financial limitations within the NHIS.

2.2.12.2 Availability of Services

Availability of healthcare services is a crucial factor affecting equitable access to healthcare under the National Health Insurance Scheme (NHIS) in Ghana. While the NHIS aims to provide comprehensive healthcare coverage, disparities in the availability of services, particularly specialized care, pose significant challenges to achieving equitable access. In some places in Ghana, especially in rural, remote and underserved regions, healthcare services are limited and often patients have to travel long distances to get the needed care (Ashiagbor et al., 2020). This leads to unequal access to health care, which means that people in these regions may go without treatment for long periods of time or be unable to receive treatment at all, for logistical and financial reasons (World Health Organization, 2017).

Patients living in regions lacking specialized healthcare are left with no access to life saving procedures. Urban centers tend to have concentrated specialized services, such as for surgery, advanced diagnostics, and chronic conditions, such as diabetes and heart disease, leaving rural populations underserved (Asare-Akuffo et al., 2020). This problem is further exacerbated by the unequal distribution of healthcare providers especially specialists. Due to the shortage of specialized professionals in many areas, patients in need of such services often have to either stream to urban areas or lose it altogether, resulting in poorer health outcomes in line with underserved populations (Asare-Akuffo et al., 2020).

Access to healthcare services is also affected by the unequal distribution of healthcare facilities. Rural areas tend to have fewer healthcare centres with fewer services offered than urbanised areas where there are multiple hospitals and outpatient clinics available to patients, even those that provide clinical specialties (World Health Organisation, 2017). As such, it is argued that residents in rural areas do not receive the comprehensive services available under the NHIS scheme effectively denying them the benefits of the scheme (Manortey and

Acheampong, 2016). Access to healthcare services is crucial to ensuring equitable access regardless of where one is located and that seems to be the missing link in many Ghanaian regions (Koduah et al., 2016).

In addition, the extent to which critical material such as medical instruments and equipment is available also impacts the healthcare service prospect under the NHIS. Shortages of essential medicines, diagnostic tools and medical devices can significantly constrain the capacity of healthcare providers to provide effective care (Ashiagbor et al., 2020). This is especially problematic in rural parts of the world, where hospitals might not have the budget to provide even basic care, let alone specialty care. Consequently, patients from the area could either face long wait times to receive treatment or not receive treatment at all, eventually increasing healthcare disparities (Koduah et al., 2016).

There have been efforts to mitigate these disparities in the availability of services under the NHIS, but challenges remain. Addressing the equitable access of health services in Ghana requires the need to implement strategies that will improve the distribution of health workers, facility equipped with essential supplies and the availability of essential supplies of medicines (Koduah et al., 2016). Nevertheless, there needs to be a concerted cost and commitment from the government and other stakeholders to guarantee that every Ghanaian irrespective of their geographical area has access to the full spectrum of services offered by the NHIS (World Health Organization, 2017).

2.2.12.3 Awareness and Information

Background awareness and information are important determinants regarded as influencing equitable access to healthcare services in the National Health Insurance Scheme (NHIS) in Ghana. Involvement in the scheme is very much dependent on its knowledge (NHIS) as well

as receiving the right information regarding it. Some Ghanaians, particularly those in rural areas, may be unaware of the benefits and services that the NHIS offers, which can limit their use of healthcare services. Limited knowledge and comprehension of the NHIS can lead to decreased enrollment rates and less access to healthcare, according to research (Jehu-Appiah et al., 2011).

The NHIS occurs with little access to information on how it operates, especially in some remote areas and poorer communities. Urban residents benefit from multiple sources of message (eg media based information sources) while rural residents are left dependent on repeaters and outreach programs that don't represent the reach of an initiative. This asymmetry of information leads to inequities in the access to health services since the less informed are less likely to register for the NHIS, and even when registered, do not fully adopt its usage. Inadequate targeted information campaigns in rural areas were identified in a study as one of the major barriers to attaining equitable healthcare access under the NHIS (Boateng & Awunyo-Vitor, 2013).

Moreover, misinformation and misconceptions about the NHIS further hinder equitable access to healthcare. Some individuals may believe that certain services are not covered by the NHIS or that enrollment is only available to specific populations. These misconceptions can discourage people from enrolling in the scheme or from seeking the care they need. Research indicates that addressing these misconceptions through targeted education and outreach programs is essential for improving healthcare access (Mensah et al., 2010). Effective communication strategies that clearly convey the benefits and coverage of the NHIS are crucial for enhancing public understanding and participation.

In addition, healthcare providers play a crucial role in the spread of information about the NHIS. Providers are often the source of information for patients, especially in places with poor

levels of formal education. However, healthcare providers themselves may not be well informed about the NHIS as well and may therefore spread misinformation or fail to adequately inform patients about their entitlements under the scheme. It implies that continuous training should be provided to health care providers to support communicating the NHIS information to patients (Brugiavini, 2016).

Public education campaigns should fill the gaps in awareness and understanding. These campaigns must be tailored to the specific information needs of each demographic group, especially rural and underserved communities. Various communication channels can be utilized to disseminate successful strategies such as radio, community meetings and mobile technology to ensure that accurate information on the NHIS reaches many. This concludes that raising awareness and giving information is very important in order to attain equitable health care under NHIS (Fenny et al., 2016).

2.2.12.4 Demographics and Socioeconomic Status

Equitable access under the National Health Insurance Scheme (NHIS) is determined by demographics and socioeconomic status in Ghana. Demographic and socioeconomic factors such as age, gender, education, income, and occupation have a strong impact on the way people use the NHIS. Indeed, these factors can lead to inequities in healthcare access, particularly for marginalized populations who may experience greater challenges in obtaining necessary services (Alhassan et al., 2016). For example, gender and age have been identified as influential factors affecting healthcare access, particularly in rural settings, with older adults and women being especially impacted by socio-economic and cultural barriers.

The level of income is among the important socio-economic variables affecting access to health care under the NHIS. While NHIS aims to ensure universal coverage, availability of

indirect costs incurred by low-income individuals with transportation and opportunity cost may hinder accessibility of healthcare services. Research indicates that financial barriers prevent people in lower socio-economic brackets from utilizing healthcare services even though they are insured (Kusi et al., 2015). This indicates that although the NHIS makes some direct costs less burdensome, the economic status of individuals is still an important factor for their access to care.

Educational attainment also plays a huge role in how people use the NHIS. Increased knowledge and utilization of NHIS benefits and services was observed among individuals who have higher levels of education. Individuals with low education, on the other hand, may not know how to fully navigate the healthcare system or may hold beliefs about the NHIS (e.g., related to coverage and benefits) that is just plain wrong (Brugiavini et al., 2016). The gap in education across the country, however, demonstrates the need to educate further information for everyone so that they can have the necessary information towards their medical practices.

Gender disparities are also present in access to healthcare services under the NHIS. Women, especially in rural areas, could be confronted with unique challenges, owing to cultural expectations, caregiving responsibilities, and limited financial resources. These factors can decrease their prospects of obtaining timely medical care even while enrolled in the NHIS. These intersecting factors often render women more susceptible to barriers to healthcare access, accentuating the need for gender-specific interventions within the NHIS (Dixon et al., 2014). These gender variations need to be addressed to ensure that women can benefit from the health care services available for this scheme.

NHIS is further exacerbated by geographical location, as the impact of socioeconomic status on access to healthcare can be significantly more pronounced with the type of community in which individuals live. In addition, rural populations tend to have lower income and education

levels, which pose added challenges due to the lack of health facilities and specialized services. It has also been found that distance, cost, and lack of information collectively deter access to healthcare services for those living in remote areas (Dalaba et al., 2014). Such demographic and socioeconomic differences also point out the need for targeted policies to ensure protection of the most disadvantaged groups, so that those people can benefit from the NHIS equitably.

2.2.12.5 Policy and Administration

One relevant issue is the role of policy and administration in the effectiveness and equity of access to health care services as part of the National Health Insurance Scheme (NHIS) in Ghana. Policies that regulate the NHIS aim to cover everyone in the country, however, the application of these policies is plagued with challenges that lead to inequities in healthcare access. The NHIS is delivered through an elaborate set of administrative structures and processes which should be gauged based on their ability to deliver services in an efficient and equitable manner. According to studies, although the NHIS has substantially improved access to healthcare, inefficiencies in policy implementation and administrative processes continue to limit its full potential (Boateng and Awunyor-Vitor, 2013).

Currently, this structure faces many challenges including bureaucratic processes which can create delays in terms of access to services. “It is essential that government enrollment and claims process is made instantly accessible to improve accessibility as the majority of the time, it is difficult for people, especially with a very low level of education or living in remote areas, to go through the tedious process of registration, renewal of membership and making claims. These administrative bottlenecks cause people to stop enrolling in the scheme or using their NHIS benefits when required. Many others encounter long delays until their claims for care

are processed, and spend unnecessary time waiting for care because of administrative restrictions, creating a need for access-oriented healthy systems (Blanchet et al., 2012).

The decentralized nature of the NHIS administration can also lead to inconsistencies in service delivery across different regions. Although decentralisation aims to remove barriers to accessing health services by decentralising the funds for the NHIS to the local areas for the local provision of services, this might lead to variation in the quality of these services. In areas with weaker administrative capacity, patients may have less access to services and longer wait times. A study found that these regional disparities in administrative efficiency can exacerbate inequalities in healthcare access, particularly in rural and underserved areas (Sulzbach et al., 2005).

A major challenge facing the management of the NHIS is fund and resource management. The financial sustainability of the NHIS is crucial for its long-term success, but challenges in fund management can impact the availability and quality of services. Mismanagement of funds, delays in reimbursements to healthcare providers, and inadequate allocation of resources can lead to service shortages and reduced access to care. Studies have highlighted the need for improved financial management and transparency within the NHIS to ensure that resources are used effectively to support equitable healthcare access (Anabila et al., 2019).

Policy inconsistencies and frequent changes in NHIS regulations also contribute to challenges in healthcare access. The NHIS has undergone several policy changes since its inception, with shifts in coverage, benefit packages, and payment structures. These changes, though generally made with the best of intentions to improve the scheme, can be confusing for both service providers (doctors, specialists, service providers, etc.) and beneficiaries, thus reducing access to services done by providers and undermining the very intent of the scheme. A capitation payment system, for example, created uncertainty among healthcare providers, reducing their

willingness to accept patients from the NHIS and negatively impacting patient access to care (Kusi et al., 2015). It is therefore critical to maintain consistency in policy implementation, as well as providing clear guidance on policy changes to maintain trust in the NHIS and allow patients access to services as required.

While these policy and administrative hurdles are being tackled, it needs concerted effort from all sides including the government, healthcare providers and the public. As such, the implementation of these policies entails the need to enhance the administrative capacity of the NHIS, improve transparency in the management of the fund, and guarantee consistency in policy implementation, as these will be necessary prerequisites for achieving equitable access to health care services in Ghana. NHIS's ability to address these issues is critical to its capacity to deliver on its mandate of universal healthcare coverage for all Ghanaians (Agyepong et al., 2012).

2.3 Review of Theories and Models

Theories and models provide a crucial framework for understanding and assessing equity in healthcare access. The theoretical perspectives on equity are primarily rooted in social justice theories, which explore the distribution of resources, utility, and liberty to achieve fair outcomes. This section will focus on three key theories namely: utilitarianism, libertarianism, and egalitarianism as they form the foundation for defining equity in healthcare. Additionally, models of healthcare access, such as the behavioral model, the fit model, and the empowerment model, are discussed to illuminate the complexities of healthcare access and the factors that influence it.

2.3.1 Models

Models of healthcare access are essential tools for analyzing and understanding the various factors that influence individuals' ability to obtain healthcare services. These models provide a structured approach to examining how different elements such as socioeconomic status, geographic location, and healthcare system design, interact to either facilitate or hinder access to care. The following section discusses key models, including the behavioral model, the fit model, and the empowerment model, which offer insights into the complexities of healthcare access and help to identify areas for improvement in achieving equitable healthcare for all.

2.3.1.1 Behavioral Model

One of the most widely used frameworks in health services research is the Behavioral Model of Health Services Use (BM), developed by Ronald M. Andersen in the late 1960s. Andersen initially developed the model to understand what leads people to use healthcare services. It first focused on the individual level determinants that lead them to access healthcare, and factors that can support or curb access to healthcare, as well as the need for healthcare services either for individuals or as assessed by health professionals (Andersen, 1995). Over time, the model has been expanded and refined to include only individual but also healthcare system factors, provider factors and external environment, leading to a comprehensive framework.

The Behavioral Model proposes that healthcare utilizations are influenced by three core components: predisposing factors, enabling factors and perceived needs factors. The predisposing factors include demographic factors, social structure, and health beliefs that predispose individuals to use healthcare services. The enabling factors include the logistics of receiving care, such as income and health insurance, can affect health outcomes. Lastly, need factors include both perceived need and evaluated need for healthcare services, and motivate

people to seek care (Andersen et al., 2007). This suggests that, rather than need being the primary determinant of health service access, wider social and economic forces determines access.

The Behavioral Model helps to demonstrate how differences in predisposing characteristics, enabling resources, and need factors lead to varying groups having positive differences in the use of healthcare; thus, those same disparities should appear in healthcare equity. That is, better socioeconomic status accord individuals with higher enabling resources, including health insurance and access to high-quality healthcare facilities, which enhances the use of healthcare services. In contrast, socioeconomically disadvantaged individuals may experience lack of enabling resources despite being sick (Gelberg et al., 2000). This model highlights the critical need to combat social and economic inequalities in order to provide access to healthcare for all.

With regards to equity access for NHIS in Ghana, the Behavioral Model offers a structure for understanding how a number of factors affect people's ability to use healthcare services under the scheme. While the NHIS is designed to lower financial barriers to access by offering insurance coverage, other enabling resources, such as geographic proximity to health systems and the availability of services, remain a major determinant of access. Factors that can combine to lead to inequitable access include predisposing characteristics, enabling resources, and need factors, and the model is specifically concerned with identifying end points that achieve equity in the NHIS and gaps in other demographic groups and regions (Dixon et al., 2014).

One of the main criticisms of the Behavioral Model is that it tends to oversimplify the complex relationships that exist within healthcare access, focusing primarily on individual-level factors, while ignoring wider systemic and structural factors. Kroeger (1983), for instance, argues that the model fails to sufficiently take into consideration the role of health care system variables,

like the organization and the funding of health care, both of which can play a major role in access. Additionally, Bambra et al. (2019) develop a critique of the model that highlights the way that model focuses on individual behavior may become equivalent to blaming individuals for being victimized or for not receiving healthcare because of their individual choices, not focusing on structural inequalities. While these criticisms highlight that the Behavioral Model may not fully capture the complexities of incentive structures, they also show that engineers can benefit from utilizing additional frameworks for analysis.

There are criticisms of the Behavioral Model, but its supporters also point to its merits in offering a broad framework to understand healthcare utilization. Andersen et al. (2007) argue that the model offers a useful lens through which to explore a broad array of individual, social, and environmental factors affecting healthcare access. Moreover, the model draws on both perceived and evaluated need, which is an important consideration as it allows for an analysis of how individuals healthcare needs are recognised and addressed; such understanding is vital for obtaining equity. Finally, Gelberg et al. (200) highlight that the model's applicability across contexts and populations make it a useful tool for health services research in a variety of settings.

The strengths of the behavioral model include its intricate consideration of many factors that shapes access to care, thus making it a comprehensive approach to understanding healthcare equity. The comprehensive approach helps researchers and policymakers better understand where barriers to access exist, which can help develop targeted interventions to address them. An example application of this model could be to evaluate how well the NHIS in Ghana is meeting the needs of various population groups and determining where there are gaps that require further attention. The model gives a comprehensive view of healthcare access by

emphasizing the interplay among factors that predispose, enable, and need individuals, which is critical for ensuring equity (Andersen et al., 2007).

The Behavioral Model is a useful framework for this study in evaluating equity access to healthcare in the NHIS in Ghana. This model differs from the NHIS model but helps discern what contributes to inequities in access and how well the NHIS addresses this inequity. The Behavioral Model is a relevant framework that can be used to evaluate the impact of the NHIS on healthcare accessibility, including funding and nonmonetary obstacles, as well as identify areas that require further improvement. This model focuses on the factors affecting access to healthcare, thus enabling the study to incorporate several aspects that may contribute toward evaluating equity for the NHIS.

2.3.1.2 Fit Model

The Fit Model, developed by Penchansky and Thomas in 1981, provides a comprehensive framework to improve understanding and assessment of healthcare access. Less frequently cited than some of the other health systems framework/models, its emphasis on the alignment, or "fit," between health services and the needs of the population has attracted attention in health services research. The model specifies five individual dimensions of access: availability, accessibility, accommodation, affordability, and acceptability (Penchansky & Thomas, 1981). The first three dimensions effectively embody unique aspects of the healthcare systems capacity to provide for the needs of the patient, highlighting that access is multi-faceted but also context dependent in determining the experiences of individuals.

So availability is when there are enough healthcare services to meet the needs of a population. Accessibility involves the geographical and physical relationship of providers to patients, such as distance and transportation. Accommodation refers to how healthcare services are organized and responsive to patient needs including opening hours and appointment systems.

Affordability involves the financial ability of individuals and populations to access services, such as insurance premiums and out-of-pocket payments; Finally, acceptability relates to the congruence of patient attitudes and values with the characteristics of the healthcare provider, including cultural beliefs and personal preferences (Saurman, 2016). This multilevel analysis provides a deeper understanding of how residents' needs are met (or not) by their health systems.

In the context of healthcare equity the Fit Model provides important insight by revealing the potential misalignment between service delivery and patient needs along its five dimensions. For example, a healthcare facility may be available but inaccessible if it's too far from underserved communities. In a similar way, services may be low cost but of poor quality due to cultural mismatch (Wyszewianski, 2002). Disaggregating access in this way helps to identify specific obstacles that different segments of the population may encounter, highlighting opportunities for targeted interventions to promote equity.

In the Ghanaian context, application of the Fit Model highlights three key areas of concern. Although the NHIS intends to provide affordable health care services, other public health system dimensions remain in a challenging state. For instance, specialized services are still not available in rural areas and access is indirectly constrained due to poor transport infrastructure (Alhassan et al., 2016). Problems with accommodation occur as healthcare facilities operate, but during hours of patients' work schedules, while problems with acceptability when cultural beliefs prevent individuals from seeking certain categories of care. The use of the Fit Model also offers a way to assess the extent to which equitable access has been achieved through the NHIS based on multiple domains, rather than simply focusing on the financial domain (Jehu-Appiah et al., 2011).

But there is criticism of the Fit Model. One criticism is its potential oversimplification of complex socio-political factors influencing healthcare access. Peters et al. (2008) argue that the model do not address issues such as the governance and policy environments that constitute a systemic issues. Additionally, Levesque et al. (2013) believe that the static nature of the model is incapable of capturing the dynamic interactions between patients and healthcare systems over time. Moreover, some scholars believe that the "fit" of this model may risk placing responsibility on the patients to fit within existing systems, rather than pushing for system changes (Russell et al., 2013).

While these critiques exist, supporters of the Fit Model emphasize its merits, including the structure and comprehensiveness it provides. The model's clarity in defining the dimensions of access enables better identification of access barriers (Saurman, 2016). McLaughlin et al. (2016) highlight its relevance to a wide extent of health care settings, making it a multidimensional tool for policy makers. Additionally, according to Manortey and Acheampong (2016), it can also assist researchers with empirical research by measuring the dimensions of access and their influence on health outcomes. Such endorsements testify to the model's relevance and applicability in health services research.

Nonetheless, the Fit Model is pivotal to this study as it is used to evaluate the equity access to healthcare under Ghana's NHIS. By examining each access dimension, assist the study to fix focus on specific access domains where the NHIS excels or lacks, which can guide specific policy recommendations. For example, if affordability is not an issue but acceptability should be, because of cultural mismatches, then interventions should focus on cultural competency training for the providers. Furthermore, the model's comprehensiveness enables a holistic assessment, which corresponds with the aim to comprehensively evaluate equity in healthcare access.

2.3.1.3 Empowerment Model

Based on the work of social psychologist Julian Rappaport in the 1980s, the Empowerment Model began as a framework to increase participants' ability to influence their lives and surroundings. Rappaport (1987) argued that the focus needs to be on empowering less powerful communities through increased participation in decision-making processes to enable them to shape outcomes that affect their own lives. This model has since been adopted widely in many domains such as health promotion or public health to highlight the empowerment of patients to take control over their own health and healthcare decisions.

The Empowerment Model in healthcare focuses on patient autonomy, and participation and power no longer lies with a single healthcare professional. This new model promotes an understanding that helps people decide on the right thing to do regarding their health care. This includes giving patients information and options and enabling them to have a say in planning and delivery. Ultimately, the aim is to develop a fairer healthcare system by making it possible for individuals of varying social or economic conditions to gain access to and make effective use of healthcare services (Zimmerman, 2000). This highlights the need to emphasize the consideration of power differentials in healthcare contexts in which, historically, the patient has been subordinate to the healthcare provider.

The Empowerment Model offers a framework for understanding how disparities in healthcare access can be addressed through patient empowerment transforming individuals into economically viable members of society. The model aims to stimulate personal autonomy especially among minority and poor groups, as a means to break down obstacles to utilizing health care services. It hits on the fact that our healthcare systems need to be responsive to the needs of all patients, and that we need that knowledge and ability to power our way through

the healthcare world. So, health access can be equitable and accessible by helping them to overcome the barriers that prevent them to seek for healthcare services (Wallerstein, 2006).

The Empowerment Model further collaborates with the ideals within the context of the National Health Insurance Scheme (NHIS) in Ghana by focusing on the need to empower beneficiaries to be able to successfully access healthcare services within the health system. But in practice access is limited for some population segments, and these inequities are most aroused in low-income and rural health groupings. The Empowerment Model proposing that, by empowering the mentioned groups (through the provision of education, better communication and increased involvement in healthcare decision-making), this would heighten their ability to access services under the NHIS. Many parts of the health system likely exist, which an individual either does not use or understand; however, if the scheme is introduced in a way that individuals understand the benefits and how to utilize the NHIS, they will be more willing to use the scheme that promotes health equity (Agyemang-Duah et al., 2019).

However, the Empowerment Model has its weakness as well. Scholars have criticized the model for putting too much onus on individuals to find their way through complex healthcare systems, which can obscure systemic factors that perpetuate inequities in access to healthcare. Labonte and Laverack (2008) argue that empowerment, as an outcome, in itself is a good thing but seldom achieved in environments where there are structural injustices. Moreover, as Joseph (2020) have critiqued, the model's emphasis on individual agency can detracted from the demand for larger system-level changes. Critiques highlight the limitations of an isolated application of the Empowerment Model, and make the case for addressing structural determinants of health to complement individual level actions.

Up against these criticisms, advocates for the Empowerment Model contend that it offers a much-needed corrective to the traditional top-down models of healthcare. The focus on patient

autonomy and engagement in the model is a necessity for building a more responsive and patient-centered healthcare system, as noted by advocates such as Wallerstein (2006). Moreover, Zimmerman (2000) suggests that the emphasis on the development of individual and community capacity in the model can result in more sustainable health outcomes, as individuals who feel empowered are more likely to take part in health-promoting activities and advocate for their own needs. Empowerment is not just a thing we foster in individuals; Rappaport (1987) insists that they first arise in supportive environments and are but reflections of a group.

The Empowerment Model presents a useful framework for this study in evaluating equity access to healthcare under the NHIS in Ghana. The study can investigate if and how beneficiary level empowerment might improve various aspects of access to care and service utilization. This model helps to identify external and internal barriers due to its perception on accessing health services, which should be addressed in the promotion of NHIS for the benefit of all Ghanaians. Based on the principles of Empowerment Model, assist the study to indicate how the NHIS could be constructed and implemented in a way to achieve its goal of universal and equitable access to health care (Alhassan et al., 2016; Zimmerman, 2000).

2.3.2 Theories

Theories provide a foundational framework for understanding and analyzing complex concepts, such as equity in healthcare access. The review explores key theories of social justice, including utilitarianism, libertarianism, and egalitarianism, which underpin the conceptualization of equity in healthcare. These theories offer insights into how resources, opportunities, and care are distributed within a healthcare system, shaping our understanding of what constitutes fairness and equity.

2.3.2.1 Utilitarianism

Utilitarianism, moral and philosophical systematization first articulated by the English philosophers Jeremy Bentham and John Stuart Mill in the 18th and 19th centuries respectively. The basic tenets of utilitarianism are that the moral rightness of action is determined by consequences, particularly how well they promote the best good for the largest number of people. Bentham first proposed measuring the value of an action by its utility, or the extent to which it boosts overall welfare (Bentham, 1781). Mill had later revised the theory, recognizing that happiness is qualitative, and that some pleasures are intrinsically of greater value than others (Mill, 1863). Since then, utilitarianism has established itself as a vital foundation of moral philosophy and has been used in many practices, including economics, politics, and healthcare.

The theory of utilitarianism is premised on the idea of maximizing general welfare. It works on the principle of the happiest number of people, i.e., the more the happier number of people, the better it is for the society. In healthcare, this means allocating the available resources while maximizing the health of the entire population. According to the theory, the same can be said about healthcare decisions, which should be made according to the ability to achieve the best results for the majority of people, although it might sacrifice some to a lesser degree than others (Hausman & McPherson, 2016). As a result, utilitarianism is frequently perceived as concentrating on efficiency and value for money in the provision of healthcare.

As an ethical framework, utilitarianism suggests that interventions and resource allocation efforts should be directed toward achieving the greatest overall health benefit when addressing healthcare disparities. As an illustration, a utilitarian approach to ethics might favour public health interventions that promise to prevent the greatest number of illnesses or deaths from occurring in the first place, including vaccination programs or improvements to sanitation. This

strategy can also help to ensure that scarce health care resources are allocated in ways that benefit the most people. While utilitarianism can result in the greatest good for the greatest number, it may also create challenging compromises, potentially sacrificing the welfare of minority or underprivileged populations for the welfare of the majority. This creates tension between instrumental utilitarianism and the pursuit of equitable access to healthcare (Daniels, 2007)

Utilitarian ideas can be identified in the design and implementation of Ghana's National Health Insurance Scheme (NHIS). The purpose of the NHIS was to ensure a nationwide access to healthcare and ultimately better health outcomes. The scheme prescribes efficient interventions (primary health care services, preventive interventions) similar to the principles of utilitarianism by maximizing the benefits derived from limited health care resources. But the challenge is making sure that this wide-ranging approach doesn't create inequities in access for some population cohorts, especially for those living in rural or hard to reach areas where medical facilities and services might be less obtainable (Koduah et al., 2015).

According to critics of utilitarianism, the tendency of the theory to calculate the overall benefit can sometimes lead to injustices inflicted upon individuals or minorities. To this one of the main objection is that the utilitarian ethics can approve to do some actions which (the minority) are may lead to more benefits (the majority). For example, in the healthcare space, this means certain populations receive less focus and fewer resources, like rare diseases or diseases in remote areas, because their need is small enough that they don't significantly change the overall health of the larger population. Another prominent critique of utilitarianism is from Sen (2017) who posits that the theory ignores questions of distribution, thus failing to account for the fairness and justice implications of the consequences of a given action. Nozick (1974) argued

that utilitarianism could (if followed) jeopardize individual rights because by this theory, the interest of a few can go down the drain for the interest of a high number.

Despite these limitations, utilitarianism offers practical strengths as it provides a useful framework for healthcare decision-making. According to defenders of the theory, because utilitarianism is concerned with maximizing overall welfare, such a logic will lead to an efficient distribution of health care resources, producing the greatest benefit to the largest number of people (Mill, 1863). This is especially important in resource-limited settings, where trade-offs about the use of scarce healthcare resources need to be decided. Utilitarianism further encourages an evidence-based approach to healthcare, in which decisions are made based on empirical data regarding which interventions are the most effective at improving health outcomes (Bentham, 1781). Another reason is that the policy underpinnings of this theory are consistent with collective well-being, a central feature of public health approaches, which have historically prioritized population level responses, rather than individual treatment (Hausman & McPherson, 2016).

This theory has been used as a guide to facilitate research on equity access to health care under the NHIS in Ghana. The model's emphasis on maximizing overall welfare can guide prioritization within the NHIS toward achieving the greatest health benefit in the population. However, the study should also be cautious of the limitations of utilitarianism, including the risk of failing to address the needs of minority or marginalized groups (Agyei et al., 2020; Daniels, 2001).

2.3.2.2 Libertarianism

Libertarianism is a political and moral philosophy that places primacy on individual liberty, personal responsibility, and limited government intervention. Libertarianism has its origins in

classical liberalism, with early proponents such as 17th century philosopher John Locke, who believed that individual rights, especially property rights, ought to be protected, and that the purpose of government is to protect individual rights (Locke, 1690). Libertarianism was further developed in the 20th century by thinkers like Friedrich Hayek and Robert Nozick. To give some brief context, his original exposition of libertarian permutation, Anarchy, State and Utopia (1974), remains the single most powerful articulation of contemporary libertarianism's more dovish tendencies, arguing that a minimal state that focuses solely on the defense of individuals against force, theft and fraud and allows for voluntary dealings between individuals without interference.

Libertarianism meaning the state is the minimum, so states are people who cannot interfere in the rights of others, as far as choices or actions are concerned, in absolute freedom. Libertarians maintain that people should be free to pursue their interests and that the function of government should be limited to enforce contracts, protect property rights, and provide for public safety (Hayek and Hamowy, 2020). In particular, libertarianism in healthcare would oppose government-run healthcare systems or mandates and would instead argue for a free-market or market-driven approach in which individual patients are responsible for their own decisions and expenses (Tomasi, 2012). It can be argue that such competition serves the needs of the individuals better than centralized system, one of the view.

Libertarianism, as it relates to equity access in healthcare, offers a unique viewpoint that is in stark comparison to far more egalitarian views. The libertarian view holds that health care should work like the free market and is at best a personal responsibility, not a right. It allows people to pick their healthcare providers and insurance plans according to their personal circumstances and financial means without government interference. From this perspective, inequalities of access are a natural result of different choices and circumstances, rather than

an injustice in need of correction by the state. This perspective highlights one's own liberty and the right to make independent choices about one's health (Boaz, 2015).

Libertarianism would critique, entirely and fundamentally, the basis on which Ghana's National Health Insurance Scheme (NHIS) was founded, for it is conceptualised on the premise of communitarianism of providing a basic minimum standard of healthcare funded by use of the collective. Libertarians would likely hold that the NHIS, through its forcible collecting of contributions and its pooling of those resources to offer universal healthcare coverage through the NHIS, limits individual freedom and the choices on how to allocate personal resources at an individual level (Friedman, 2016). Instead, they would favor a system in which people could buy private health insurance or services as needed, depending on their particular needs and finances. This is concerning, as it may involve the exchange of health care access and the ability for low-income individuals, including those in rural settings, who may rather not pay out of pocket to access their needed care including out of pocket expenses that exceed the cost of basic implementations without a collective insurance/corrective effect scheme that acts as a buffer to extreme need (Van der Zee & Kroneman, 2016).

Indeed, the libertarian perspective has a few serious shortcomings with respect to healthcare access. A common critique is that libertarianism does not recognize the social inequities that impact people's ability to access healthcare. To illustrate, Sen (1995) critiques libertarianism for neglecting the influence of social determinants of health (for instance, poverty, education level, or geographic location) on an individual´s ability to access appropriate healthcare. Also, according to Otsuka (2003), libertarianism overlooks the importance of personal responsibility, noting that an equitable society must ensure that and individuals have equal social conditions to be able to act responsively to achieve fairness, which health care fallacy or inequity to address. Moreover, more recent critiques by DWarkin (2011) raise the possibility that libertarianism might worsen health disparities as it ignores the needs of disadvantaged

populations may not have the purchasing power to access care in a purely market-driven setting.

For all of these critiques and more, there are some potential strengths to libertarianism that make it an attractive framework for some. Supporters contend that libertarianism leads to greater efficiency and innovation in healthcare, as competition and consumer choice drive improvement in health services. Friedman (2016) argues that market competition provides incentives for better quality services, as providers compete to attract and retain patients through price, quality, and degree of customer satisfaction. Additionally, proponents of libertarianism claim that it is to be given importance or respect to an individual autonomy and their right to make personal and medical decisions without government interference (Tomasi, 2012). They argue for a libertarian approach cutting back on government bureaucracy and inefficiencies generally found within a centralized healthcare system that could reduce the overall cost of healthcare (Boaz, 2015).

The libertarianism perspective provides a distinctive lens through which to assess equity in access to healthcare services under the NHIS within Ghana. In designing the NHIS, the study must contend with the basic libertarian critique that, collective responsibility and universal coverage, could lead to inefficiencies and limited access to care. This approach will enable the study to frame how the NHIS can still be guided by the principles of individual freedom while facilitating collective responsibility in determining its structure to assure that the benefits of the system are not released only to a specific social class. It urges the study to consider alternative models of healthcare delivery that center efficiency and innovation, while also engaging with social determinants of health that impact access to care, to a different and perhaps more generous end (Van der Zee & Kroneman, 2016; Dworkin, 2011).

2.3.2.3 Egalitarianism

Egalitarianism is a theory of equality in every sphere of human existence, more precisely in resource allocation, chances, and rights. The beginnings of egalitarianism lie in the era of Enlightenment, when philosophers like Jean-Jacques Rousseau wrote in response to social inequalities and in support of a more just society (Rousseau, 1987). In the 20th century, John Rawls continued to define egalitarianism in his book A Theory of Justice (1971), in which he developed the concept of "justice as fairness." The Rawls theory argues that social and economic inequalities should be structured to be to the benefit of the least advantaged in society, thereby ensuring a fairer distribution of wealth and opportunities.

Egalitarianism, in its basic essence, is interested in ensuring that all people enjoy equal access to resources and opportunities regardless of their social, economic, or demographic status. The theory posits that inequalities can be morally justifiable only if they work in favor of the least advantaged in society. The theory is generally applied in the form of policies and systems that help to curtail disparities and provide equal opportunities to all. In healthcare, egalitarianism is in support of a system in which everyone regardless of their socioeconomic status has equal access to healthcare services. The approach is generally in support of the concept of universal healthcare in which healthcare is a right and not a privilege, and in which efforts are taken to eliminate barriers to access (Daniels, 2007).

When applied to healthcare access equality, egalitarianism presents a strong theory for recognizing and responding to healthcare provision disparities. In an egalitarian system, healthcare systems are established to provide everyone with a similar level of healthcare regardless of their capacity to pay or social standing. This would mean redistributing funds from richer individuals or areas to poorer ones to provide healthcare services to everyone

(Dworkin, 2011). Egalitarianism is in favor of financing healthcare using collective funds, such as taxes, to provide everyone with a chance to receive services without financial constraints.

In the case of Ghana's National Health Insurance Scheme (NHIS), egalitarian ideals are expressed in the objective of the scheme to provide universal healthcare coverage. The NHIS attempts to reduce financial barriers to healthcare provision by pooling money from a large base and using such money to provide for all citizens, particularly the most vulnerable groups. This is in line with egalitarian ideals that society should provide everyone with a fair chance to receive healthcare regardless of their financial position. The focus of the NHIS on equity and inclusion is a reflection of an effort to use egalitarian ideals in a healthcare system, in a move to close gaps in access and outcomes between various groups of the population (Adjei et al., 2020).

Despite its advantages, egalitarianism is not without its shortcomings. One of these is that the theory is idealistic and impractical to apply in the real world, particularly in multicultural groups of different needs and resources. Some scholars such as Nozick (1974) argue that egalitarianism infringes on individual freedom in that it disperses resources in ways that would be perceived as unjust to other people. An example is that mandatory redistribution of wealth to achieve equality would be a disregard of property rights, a key concern of libertarian scholars. Further, it is argued that egalitarianism's focus on equality of outcome over equality of opportunity would be wasteful in that it would discourage innovations and effort if one perceives that efforts would not be rewarded due to enforced equality (Friedman, 2016). Further, Sen (1995) also argues that strict egalitarianism would disregard individual needs and preferences, resulting in a one-size-fits-all approach that would fail to cater to unique healthcare needs of different groups.

However, proponents of egalitarianism argue that the theory's concentration on equality and justice makes it a compelling theory to apply in addressing social inequalities, such as in healthcare. Egalitarianism is said to promote a more just and compassionate society by favoring the welfare of the most vulnerable, argues proponents such as Rawls (2001). The theory is highly relevant in healthcare, where provision of basic services can define a person's welfare and prospects in life to a large extent. Egalitarians argue that making everyone have equal access to healthcare is a means of levelling the playing ground, making everyone live a healthy and productive life (Daniels, 2007). Egalitarianism is also considered a morally justifiable method that is in line with more social principles of solidarity and community, hence a sound basis for public policies that address health inequalities (Dworkin, 2011).

Synthesizing these approaches, egalitarianism is a useful framework in which to determine the effectiveness of the NHIS in providing equality of healthcare access in Ghana. By stressing that healthcare is equally accessible to all regardless of socioeconomic status, egalitarianism is a compelling ethical framework in which to determine to what extent the NHIS is acting to close health gaps. The theory is employed to argue that in providing universal coverage, the NHIS should also work towards ensuring that services in terms of their quantity and quality are equally distributed across different geographic areas and groups of individuals, hence equally practicing the principles of equity (Alhassan et al., 2016).

Furthermore, in applying egalitarian principles to apply to the NHIS, it is possible for this study to ascertain to what extent the scheme is in conformity to the health inequity reduction objective. For instance, it is possible for the study to ascertain whether or not the NHIS has been in a position to cover the most vulnerable groups in Ghana, such as low-income groups or rural groups. The use of egalitarianism as a guiding theory help the study to ascertain whether or not the policies and practices of the NHIS are in a position to address the challenges of healthcare access to such groups and if there is equitable distribution of healthcare resources

across the entire country (Sen, 1995). The use of such a method ensures that the study not only examines the overall performance of the NHIS but also critically examines its impact on the most vulnerable groups in society, in conformity to egalitarian principles.

2.4 Empirical Review

Agyei-Baffour et al. (2013) conducted a study on perception and knowledge of health providers and clients of the capitation payment system in the Kumasi metropolis. The cross-sectional design employed in the study was based on multiple rounds of a panel of 422 NHIS policyholders aged between 18 and 69 years, as well as interviews of health providers of services in 13 hospitals, 7 maternity homes, and 20 clinics. The data was collected using interviewer-administered questionnaires and was analyzed using STATA software. The findings of the study showed that even though 97.9% of clients were aware of the capitation payment system, their knowledge was low. Further, 61.2% of clients found capitation to be unimportant due to constraints in accessing healthcare providers, and 94% of health providers believed that clients disapproved of the system due to misperceptions of politicization of the system and inadequate drug coverage. The study fails to determine, however, the impact of these perceptions on healthcare outcomes or on equity in accessing healthcare. The current study overcomes this limitation in that it examines the impact of these perceptions on actual use of healthcare services and accessing services under the NHIS.

Odeyemi and Nixon (2013) undertook a comparative analysis comparing healthcare equity in Nigeria's and Ghana's national health insurance programs. The analysis utilized The World Bank's data, among other sources of PubMed, Embase, and EconLit, to derive comparative health and economic statistics. The two systems of the two countries were diagrammatically modeled to determine their revenue raising, pooling, purchasing, and provision processes. The analysis results indicated that there was a significant lead in key health indicators, such as infant mortality and life expectancy, in favor of Ghana over Nigeria, and that it also had more

equitable financing and healthcare access. The analysis is, however, lacking in comparing each country's internal variables that result in such health inequity gaps. The present study attempts to address this limitation by providing a more in-depth analysis of the specific healthcare access barriers in Ghana, namely in the NHIS, and their effects on different demographic groups.

Amporfu et al. (2022) explored the perceived healthcare quality that was experienced by NHIS members in terms of the nature of the health facility in which it was provided. The study purposively sampled 2000 NHIS members that presented to receive treatment for malaria and used the SERVQUAL method to determine healthcare quality in five areas: reliability, assurance, tangibility, empathy, and responsiveness. The analysis was carried out using instrumental variable estimation to account for health facility choice bias. The results exhibited considerable inequalities in perceived healthcare quality, with faith-based health facilities recording the highest score in all areas, followed by public and private health facilities. The study is primarily concerned with perceived quality and not actual health outcomes. The present study is addressing this limitation in that it is linking perceived quality of care to actual health outcomes among NHIS beneficiaries, providing a better reflection of healthcare equity.

Kipo-Sunyehzi et al. (2019) endeavored to determine whether or not Ghana's National Health Insurance Scheme (NHIS) is achieving universal health coverage (UHC). The study used a qualitative approach, involving in-depth interviews of participants, focus group discussions, and observations in various settings, i.e., hospitals, clinics, and homes. The study found that exempted groups have been enrolled in the NHIS, yet it is yet to achieve UHC for all citizens. The most striking challenges that came up included funding shortages and organizational inefficiencies, i.e., registration lags and poor health insurance official attitudes. The extent of these challenges in various areas and among various groups of people is not gauged in this study. This present study attempts to close this gap using a mixed-methods approach to assess

and describe in detail these challenges, providing a more detailed description of the challenges to achieving UHC in the NHIS.

Andoh-Adjei et al. (2019) conducted a study to assess healthcare providers' perception of their preferred modes of payment for various services in Ghana. The cross-sectional survey design was employed to collect data from 200 credentialed healthcare providers in three regions in Ghana using closed-ended questionnaires with a 5-point Likert scale. The results of the study showed that a high percentage of healthcare providers would prefer using the Ghana-Diagnosis-Related Grouping (G-DRG) method of payment over fee-for-service and capitation methods of payment. The study confirmed that there was a large range of regional variations in preferences for modes of payment such that healthcare providers in the Volta region and medical assistants would prefer using capitation over fee-for-service. The study is silent on how these modes of payment impact on the quality and equity of healthcare services that NHIS beneficiaries receive. The present study will close this gap in that it attempts to evaluate the quality of healthcare services in various regions in Ghana and review challenges in the functionality and implementation of the NHIS, such as financial sustainability and administrative efficiency.

Kotoh et al. (2018) explored the drivers of enrollment and retention in Ghana's National Health Insurance Scheme (NHIS). The study used a mixed-methods design, using a post-intervention household survey after a period of 20 months of educational and promotional work to promote enrollment and retention in 15 communities in the Eastern and Central Regions of Ghana. In addition to that, in-depth interviews, observations, and informal discussions with health providers, community members, and district health insurance scheme staff offered qualitative evidence. The findings showed that despite the benefits of the NHIS and friendly behavior of health providers making it easy to enroll and renew, participantship was deterred by poverty, dissatisfaction with provision of services, and customary risk-sharing behavior. The study is

not able to ascertain, however, how these influences vary between different groups of sociodemographic status or their impact on fair access to healthcare services. The present study is going to bridge this gap by ascertaining whether different groups of sociodemographic status have fair access to healthcare services in the NHIS in Ghana.

Gobah and Liang (2011) assessed the impact of the NHIS on healthcare use and health-seeking behavior in the Akatsi District of Ghana's Volta region. The design employed was a mixed-methods design that collected qualitative and quantitative data using face-to-face interviews of 320 participants and three healthcare providers using structured questionnaires. The study results confirmed that age, occupation, and educational status were primary determinants of NHIS membership. The study also confirmed that the NHIS positively influenced health-seeking behavior and healthcare use in that it removed financial barriers to healthcare services use. The study does not capture adequacy and availability of specialist services and key medications that are covered in the NHIS, which are crucial to ensuring overall healthcare access. The current study overcomes this limitation in that it assesses adequacy and availability of healthcare services covered in the NHIS, namely specialist services and key medications.

Amporfu (2013) conducted a study to determine premium collection under the NHIS in terms of vertical and horizontal equity. Kakwani index method and graphical analysis were employed to ascertain vertical equity, while horizontal inequity was measured in terms of premium payments' impact on redistribution of members' ability to pay. The analysis found that premium collection under the NHIS was vertically and horizontally inequitable, with more impact of horizontal inequity in redistribution of ability to pay. The analysis also found that a small minority of poor households would be exposed to incurring catastrophic spending in respect of premium payments, a condition that would impinge on realization of universal coverage. The analysis does not capture beneficiary satisfaction with healthcare services provided to them under the NHIS, a key aspect of healthcare access equity. The present study attempts to close

this gap in that it examines the satisfaction of NHIS beneficiaries in respect of healthcare services provided to them.

Dake (2018) explored equity in NHIS coverage in Ghana based on secondary data of the 2008 Ghana Demographic and Health Survey. Descriptive, bivariate, and multivariate analysis of a sample of 4821 females and 4568 males was used in the analysis. The concentration curves and indices were utilized to determine equity in NHIS coverage. The findings revealed that over 60% of Ghanaians aged between 15 to 59 years old were not enrolled in the NHIS, with better coverage in highly educated groups, professionals, richer households, and in cities. The conclusion was that universality of coverage was yet to be achieved in the NHIS, particularly in poor and vulnerable groups. The limitation of this work is that it utilized secondary data of 2008, which may not reflect the status of NHIS coverage in the current time. The present work is going to close this gap using more contemporary data to ascertain current equity in NHIS coverage and challenges to universality of coverage.

Siita (2019) explored the effects of exposure to capitation on perceived health service quality and out-of-pocket payments among NHIS insured clients. The analysis was done using data of respondents of the 2014 Ghana Demographic and Health Survey that reported having a valid NHIS card and having used a health facility in the six months prior to the survey. The analysis employed propensity score matching to balance covariate distributions and to estimate effects between NHIS insured clients exposed to capitation and unexposed clients. The results showed that exposed clients to capitation were 10 percentage points more likely to experience out-of-pocket payments compared to their unexposed counterparts. There was, however, no evidence of a difference between the two groups in terms of overall patient satisfaction, perceived health staff friendliness, or consultation time adequacy. The work does not examine the quality of healthcare services used by NHIS beneficiaries across different regions, a point of interest in understanding the overall effects of capitation. This current work addresses this limitation by

examining the quality of healthcare services used by NHIS beneficiaries across different regions of Ghana.

2.5 Chapter Summary

This chapter has provided a detail review of the literature relevant to understanding equity in access to healthcare under the National Health Insurance Scheme (NHIS) in Ghana. The review began with an exploration of key concepts and issues, including the historical evolution of Ghana's health system, the roles of public and private sectors, and the challenges of healthcare financing. It also detailed the structure and functioning of the NHIS, including its legal framework, insurance models, and the benefits and challenges associated with its implementation.

The theoretical review examined the application of utilitarianism, libertarianism, and egalitarianism as well as models such as behavioral model, the fit model, and the empowerment model in the context of healthcare equity, highlighting their relevance to understanding and addressing disparities in access to healthcare under the NHIS. Each theory was critically assessed for its strengths and weaknesses in promoting equitable healthcare access.

The empirical review analyzed existing studies on the NHIS, identifying gaps in the literature related to sociodemographic disparities, healthcare service quality, beneficiary satisfaction, and the challenges of implementing the NHIS. These gaps were aligned with the specific objectives of the current study, which aims to evaluate equity in healthcare access, the adequacy of services, and the quality of care provided under the NHIS. This chapter has laid the groundwork for the subsequent analysis by synthesizing existing knowledge and identifying areas where further research is needed to improve healthcare equity in Ghana for universal health coverage.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the methodology employed in this study, detailing the research process adopted to achieve the study's objectives. The research is guided by the Research Onion model, as proposed by Saunders et al. (2009), which systematically presents the key methodological choices made, from the selection of the research philosophy to the techniques and procedures used for data collection and analysis. Each layer of the research process, including the philosophical stance, research approach, strategy, time horizon, and data collection methods, is discussed to provide a clear and logical structure to the research design, ensuring that the study is methodologically sound and aligned with its objectives.

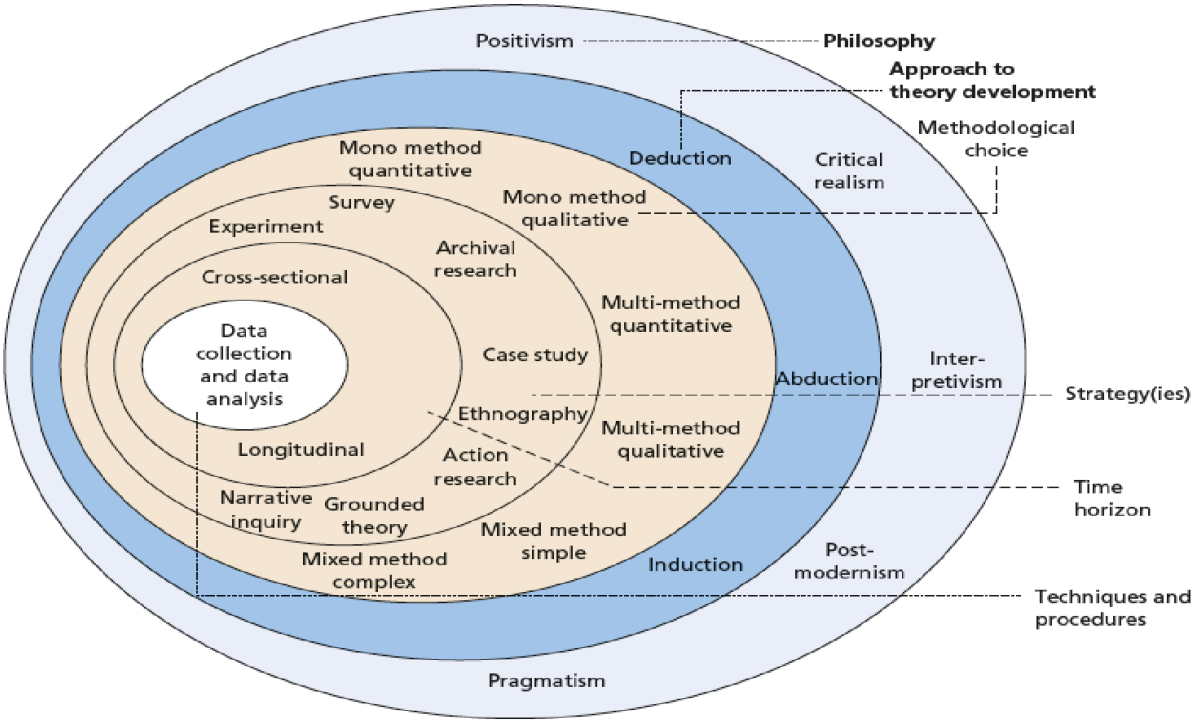


Figure 3: Research Onion

Source: Saunders, Lewis and Thornhill 2009

3.2 Research Philosophy

This study adopts Pragmatism as its research philosophy, which is particularly suitable for research involving both qualitative and quantitative methods. Pragmatism emphasizes the practical application of ideas, considering research questions as the primary factor in selecting research methods. Unlike other philosophies that strictly adhere to either subjective or objective realities, Pragmatism offers flexibility by integrating both positivist and interpretivist approaches as needed to address the research objectives (Creswell & Plano Clark, 2017). This adaptability makes Pragmatism ideal for mixed-methods research, allowing the combination of qualitative and quantitative data to provide a comprehensive understanding of the research problem.

Pragmatism aligns well with this study's objectives, which involve evaluating both the measurable aspects of healthcare access and the subjective experiences of NHIS beneficiaries in Ghana. The philosophy's flexible approach supports the use of multiple data sources and analytical techniques, enabling the exploration of different dimensions of the research questions (Morgan, 2014). This ensures that the study can effectively address the complexities of healthcare access under the NHIS, capturing statistical trends alongside the nuances of individual experiences. The focus on practical outcomes and real-world applications further enhances the study's relevance to policy and practice (Biesta, 2021).

3.3 Research Approach

This study adopts an abductive research approach, which aligns well with the integration of both qualitative and quantitative methods. Abduction facilitates a dynamic interplay between empirical data and theoretical frameworks, allowing for the generation of hypotheses based on initial observations and the subsequent testing of these hypotheses with quantitative data (Timmermans & Tavory, 2012). This approach is particularly useful in exploring complex

issues, such as equity in healthcare access under the NHIS, where understanding and refining theoretical insights is essential.

Using abduction enables the study to move beyond simple observation or theory testing. It allows for a flexible and iterative process, starting with qualitative insights to identify patterns and relationships, followed by quantitative analysis to confirm or adjust these findings (Dubois & Gadde, 2014). This method enhances the study's ability to address its objectives comprehensively, offering a balanced approach that leverages the strengths of both qualitative exploration and quantitative validation.

3.4 Methodological Choice

This study employs a simple mixed-methods approach, combining both qualitative and quantitative research methods to provide a comprehensive understanding of equity in healthcare access under Ghana's National Health Insurance Scheme (NHIS). Mixed methods are particularly advantageous in studies that seek to explore complex phenomena, as they allow for the integration of numerical data with contextual insights, offering a more complete picture of the research problem (Creswell & Plano Clark, 2017). The decision to use mixed methods aligns with the study's objectives, which involve assessing both measurable outcomes and the subjective experiences of NHIS beneficiaries.

The qualitative component of the research will be used to gather in-depth information about the experiences, perceptions, and challenges faced by individuals in accessing healthcare under the NHIS. This will include interviews and focus group discussions with key stakeholders, such as healthcare providers, NHIS beneficiaries, and policymakers. The qualitative data will provide rich, detailed insights that are essential for understanding the nuances of healthcare access, which are often not captured through quantitative measures alone (Tashakkori & Teddlie, 2010).

The quantitative component will complement the qualitative findings by providing statistical analysis of data related to healthcare access, utilization, and outcomes among NHIS beneficiaries. Surveys will be conducted to collect numerical data on key indicators, such as satisfaction levels, frequency of healthcare visits, and demographic factors influencing access to services. The integration of these two methods allows for triangulation, enhancing the validity and reliability of the research findings (Bryman, 2016). This methodological choice is crucial for addressing the study's objectives comprehensively, as it combines the strengths of both qualitative and quantitative approaches to provide a more robust analysis of the issues at hand.

3.5 Research Strategy

This study adopts a survey strategy, which is appropriate for capturing a broad and representative dataset necessary for addressing the research objectives. The survey strategy is effective in gathering both quantitative and qualitative data, enabling the study to explore the experiences and perceptions of a large number of NHIS beneficiaries and healthcare providers in Ghana. Surveys are particularly suitable for studies that require the analysis of patterns and relationships across diverse populations, as they allow for the systematic collection of data from multiple respondents (Fowler, 2013). This strategy aligns well with the study's mixed-methods approach, combining quantitative insights with qualitative depth.

The use of a survey strategy facilitates a comprehensive examination of the key issues related to equity in healthcare access under the NHIS. It allows for the collection of standardized data, which can be analyzed to identify trends and correlations across different demographic and socioeconomic groups. Additionally, surveys are versatile and can be administered in various formats, such as questionnaires and interviews, making them well-suited to the mixed-methods design of this study (Groves et al., 2011). As such, the approach will help the study to

effectively capture the complexity of healthcare access and utilization, providing a robust foundation for the analysis and interpretation of findings.

3.6 Time Zone

This study adopts a cross-sectional time horizon, which is appropriate for examining the equity of healthcare access under the NHIS at a specific point in time. A cross-sectional design allows the collection of data from NHIS beneficiaries, healthcare providers, and key stakeholders simultaneously, providing a snapshot of current conditions and experiences. This approach is particularly effective in identifying patterns and correlations within the data, such as differences in healthcare access across various demographic groups, without the need for long-term data collection (Bryman, 2016). The choice of a cross-sectional time horizon aligns with the study's objectives, as it enables the researcher to assess the current state of healthcare equity under the NHIS and draw meaningful conclusions that can inform policy and practice in a timely manner.

3.7 Techniques and Procedures

3.7.1 Population and Sampling

The target population for this study includes NHIS beneficiaries who seek healthcare at eight public hospitals in Accra: Achimota Hospital, Ga East Municipal Hospital, Ga North Municipal Hospital, Greater Accra Regional Hospital, Korle Bu Teaching Hospital, Lekma Hospital, Pentecost Hospital Madina, and University of Ghana Hospital - Legon. Additionally, the study will include hospital management personnel and NHIS personnel from the NHIS office to provide comprehensive insights into the functioning and challenges of the scheme.

For sampling, the study will employ convenient sampling to select participants. This method is chosen for its practicality in accessing a diverse group of respondents within a limited timeframe. The sample will consist of 300 NHIS beneficiaries to gather extensive quantitative

data on their experiences and perceptions of healthcare access. Additionally, 8 hospital management personnel will be selected to provide qualitative insights into operational challenges and service delivery issues. Furthermore, 7 NHIS personnel will be included to offer perspectives on policy implementation and administrative efficiency. This sampling strategy aims to capture a balanced representation of stakeholders involved in the NHIS, ensuring a comprehensive understanding of the scheme's impact on healthcare access in the Greater Accra Region.

3.7.2 Data Collection Tools

The data for this study will be collected using a combination of structured questionnaires and semi-structured interviews. These tools are carefully designed to align with the research objectives, ensuring that both quantitative and qualitative data are gathered effectively. The structured questionnaire is particularly suited for collecting standardized data from a large number of respondents, while the semi-structured interviews provide deeper insights into specific issues, capturing the perspectives of key stakeholders.

- **Structured Questionnaire**

The structured questionnaire developed for this study is designed to facilitate easy and efficient data collection from NHIS beneficiaries and healthcare providers. The questionnaire consists of closed-ended questions that allow respondents to select answers by ticking, which simplifies the process and encourages participation (Brace, 2018). This format is particularly advantageous for gathering quantitative data, as it ensures consistency in responses and allows for straightforward analysis. The questionnaire covers various aspects of healthcare access, utilization, and satisfaction, providing a comprehensive overview of the respondents' experiences with the NHIS.

Additionally, the structured questionnaire is designed to be user-friendly, making it accessible to a wide range of respondents, including those with varying levels of literacy. Its simplicity not only speeds up the data collection process but also increases the likelihood of obtaining complete and accurate responses (Creswell and Creswell, 2017). This tool is essential for capturing the broader trends and patterns that are crucial for addressing the study's objectives, particularly in evaluating the equity of healthcare access under the NHIS.

- **Semi-Structured Interviews**

The semi-structured interview is another critical data collection tool used in this study, particularly for gathering qualitative data from NHIS officials at the head office and management of various hospitals involved in the study. These interviews are designed to be flexible, allowing the interviewer to explore topics in depth while still adhering to a structured guide (Kallio et al., 2016). This approach is beneficial for understanding the complexities and challenges of implementing the NHIS from the perspective of those directly involved in its administration and delivery.

The semi-structured format enables the interviewer to probe further into responses, uncovering detailed insights that may not emerge from structured questionnaires alone (Gill et al., 2008). The interviews are tailored to explore specific issues related to the management and operational aspects of the NHIS, providing valuable qualitative data that complements the quantitative findings. This tool is crucial for capturing the experiences and views of key stakeholders, which are essential for a complete understanding of the factors influencing healthcare access under the NHIS.

3.7.3 Data Collection Approach

The data collection for this study will be conducted using a face-to-face approach to ensure thorough and accurate data gathering. The process will begin with administering structured questionnaires to NHIS beneficiaries and healthcare providers at selected hospitals and healthcare facilities. The researcher will meet each participant individually, explain the purpose of the study, and provide clear instructions on how to complete the questionnaire. Participants will be encouraged to ask questions if any aspect of the questionnaire is unclear, ensuring that their responses accurately reflect their experiences and perspectives. The researcher will then guide the participants through the questionnaire, ensuring that all sections are completed. This face-to-face interaction is expected to take approximately 20-30 minutes per participant, depending on the complexity of their responses.

In addition to the questionnaires, semi-structured interviews will be conducted with key stakeholders, including NHIS officials at the head office and management personnel at the selected hospitals. These interviews will involve a set of open-ended questions designed to explore specific issues related to the administration and implementation of the NHIS. The researcher will meet each interviewee in person, provide an overview of the interview's objectives, and seek consent to record the discussion for accuracy. Each interview is expected to last about 45 minutes, allowing sufficient time to delve into detailed discussions and follow-up on key points raised. The interview process will focus on gathering in-depth insights into the challenges and successes of the NHIS, with questions tailored to the interviewee's role and experiences. The face-to-face nature of these interviews will facilitate a more engaged and open dialogue, ensuring that rich qualitative data is collected to complement the quantitative findings from the questionnaires.

3.7.4 Data Analysis

The study will employ quantitative analysis, specifically descriptive analysis, to analyze the data collected from structured questionnaires. Descriptive analysis involves summarizing and organizing the data to identify patterns, trends, and basic features. This method provides a comprehensive overview of the participants' responses, highlighting the central tendencies and variability within the dataset (Babbie, 2020). SPSS (Statistical Package for the Social Sciences) will be used to conduct the descriptive analysis, allowing for efficient handling and examination of large datasets. SPSS will generate frequencies, percentages, means, and standard deviations, facilitating a clear understanding of the quantitative data.

For the qualitative data collected from interviews with hospital management and NHIS personnel, thematic analysis will be employed. Thematic analysis involves identifying, analyzing, and reporting patterns (themes) within the data (Braun & Clarke, 2006). The process begins with familiarization, where the researcher reads and re-reads the data to become immersed in it. Next, initial codes are generated to label important features of the data systematically. These codes are then collated into potential themes, which are reviewed and refined to ensure they accurately represent the data. Finally, the themes are defined and named, providing a detailed account of the qualitative data. This method allows for a nuanced understanding of the interviewees' perspectives and experiences, complementing the quantitative findings.

3.8 Ethical Consideration

Ethical considerations are paramount in conducting this study to ensure the protection and respect of all participants. Ensuring informed consent is a crucial ethical consideration in this study. Participants will be provided with comprehensive information about the study's purpose, procedures, potential risks, and benefits before they agree to participate. This will involve

presenting a consent form that participants must read and sign, indicating their voluntary participation and understanding of the study. The process will ensure that participants are fully aware of their rights, including the right to withdraw from the study at any time without any consequences.

Confidentiality and anonymity will be strictly maintained throughout the study to protect participants' privacy. Data collected from NHIS beneficiaries, hospital management, and NHIS personnel will be anonymized by assigning unique codes to each participant instead of using personal identifiers. This practice ensures that individual responses cannot be traced back to specific participants. Additionally, all data will be stored securely, with access limited to the research team only. Digital data will be password-protected, and physical data will be kept in a locked cabinet to prevent unauthorized access.

The protection of data is another critical ethical consideration. The study will adhere to data protection regulations to ensure that all information collected is handled responsibly. Data will be used solely for the purposes of this research and will not be shared with third parties without explicit permission from the participants. After the study is completed, data will be securely archived for a specified period, after which it will be destroyed in accordance with institutional policies. These measures will ensure that participants' information is safeguarded throughout the research process.

CHAPTER FOUR

ANALYSIS AND RESULTS

4.1 Introduction

The chapter presents the results of the analysis that was carried out to ascertain the equity in access to healthcare under the National Health Insurance Scheme (NHIS) in Ghana. The results presented in this chapter is a true reflection of data collected from NHIS beneficiaries who seeks for healthcare from selected public and private hospitals in Ghana. A total of 315 NHIS beneficiaries, healthcare providers, and employees provided data for this study. Among the respondents, 300 provided responses to Likert Scaled questionnaires for quantitative analysis while 15 respondents including both NHIS staffs and hospital managers provided interview responses for qualitative analysis.

4.2 Description of the Results

The chapter presents two set of results which include qualitative and quantitative results as pre-established in the methodology. The quantitative results are based on the data collected with the help of Likert Scale questionnaire. The quantitative analysis focused on issues such as the equitability of NHIS access, the satisfaction of NHIS beneficiaries as well as quality of healthcare services received by the NHIS beneficiaries. Data was analysed using both descriptive statistics and inferential statistics. Descriptive statistics such as frequencies, means, and standard deviations was used to presents the opinions of the respondents while inferential statics such as Chi-Square Test to ascertain whether different sociodemographic statuses have impact on equitable access to healthcare services under the NHIS. On the other hand, the qualitative result was based on the opinions of NHIS staffs and managements of healthcare providers. The qualitative results also focused on access and the availability and adequacy of healthcare services covered by NHIS, the equitability and the challenges associated with the

implementation of NHIS in Ghana. The Analysis have been done with the help of thematic areas to generate appropriate themes necessary for achieving the objectives of the study.

4.3 Demographic of the Respondents

As part of the study, the researcher solicited sociodemographic data from the various respondents who took part in the study. This sociodemographic data helped the researcher to understand the respondents in terms of their age, gender, education, employment status, marriage status and their duration with the NHIS subscription. The results for these sociodemographic data have been presented below in appropriate tables.

Table 1: Gender of the Respondents

Gender	Frequency	Percent
Female	154	51.3%
Male	146	48.7%
Total	**300**	**100.0%**

Source: Field Data (2025)

The table 1 above presents the gender distribution of the various respondents who participated in the study. The table confirms that female respondents were the largest proportion of the respondents constituting 51.3% of the entire respondents, while the male respondents constituted 48.7% of the respondents.

Table 2: Age of Respondents

Age	Frequency	Percent
25-34 Years	85	28.3%
35-44 Years	82	27.3%
45-54 Years	51	17.0%
55-64 Years	13	4.3%

Age	Frequency	Percent
65 Years and Above	26	8.7%
Below 24 Years	43	14.3%
Total	**300**	**100.0%**

Source: Field Data (2025)

The table 2 also presents the age distribution of the research respondents. From the table 4.2, individuals within the ages of 25-34 Years were the largest proportion of the respondents constituting 28.3% of the respondents. The second highest age group was 35-44 Years, which constituted 27.3%. Those within the ages of 45-54 Years were the third largest group, which also constitute 17.0%. There were also a considerable number of respondents that were below 24 Years, accounting for 14.3% of the respondents. Respondents within the ages 55-64 Years and 65 years and above constituted the smallest group of respondents, accounting for 4.3% and 8.7% respectively of the total responses.

Table 3: Education of the Respondents

Qualification	Frequency	Percent
Secondary or Lower	106	35.3%
Tertiary	144	48.0%
Postgraduate	50	16.7%
Total	**300**	**100.0%**

Source: Field Data (2025)

The table 3 illustrates the level of education of the respondents. Undoubtedly, those with tertiary education accounted for 48.0%, and they constitute the majority of the entire respondents. Those with Secondary or Lower education constituted the second largest group of the respondents accounting for 35.3% of the entire respondents, and those with post graduate

education appears to be the smallest group of respondents accounting for a total of 16.7% of the entire population of the study. Clearly, the data indicates that majority of the NHIS respondents were educated.

Table 4: Employment Status of Respondents

Employment Status	Frequency	Percent
Employed	165	55.0%
Retired	22	7.3%
Self-Employed	79	26.3%
Student	23	7.7%
Unemployed	11	3.7%
Total	**300**	**100.0%**

Source: Field Data (2025)

The table 4 also presents information on the employment status of the various respondents who took part in the study. From the data, majority of the respondents were employed accounting for 55.0% of the total respondents. The second largest group were individuals who were self-employed accounting for 26.3% of the respondents. Also, the retirees and the students accounted for 7.3% and 7.7% respectively, whereas individuals who are unemployed, accounted for 3.7% and the smallest group of respondents. The data quite clearly demonstrates that majority of NHIS respondents were either employed or self-employed, indicating that beneficiaries of the NHIS transcends employment status.

Table 5: Duration of NHIS

Duration	Frequency	Percent
1-3 Years	54	18.0%
4-6 Years	77	25.7%
7-10 Years	59	19.7%
Less than 1 Year	23	7.7%
More than 10 Years	87	29.0%
Total	**300**	**100.0%**

Source: Field Data (2025)

The research also sought to inquire about the number of years that the respondents have subscribed to the NHIS intervention. The table indicates that majority of the respondents had been beneficiaries of the scheme for more than 10 years, accounting for 29.0% of the respondents. Those who have been on the scheme for 4-6 years constituted the second largest group of respondents accounting for 25.7%. Also, 19.7% of the respondents had been beneficiaries of the scheme for 7-10 years, and 18.0% of the respondents had been beneficiaries of the scheme for 1-3 years. Further, the data shows that only few respondents had been beneficiaries of the scheme for less than 1 year, accounting for only 7.7% of the population.

Table 6: Frequency of Healthcare Visits in a Year

Healthcare Visits	Frequency	Percent
Annually	66	22.0%
Every 2-3 months	68	22.7%
Every 6 month	65	21.7%
Less than once a month	26	8.7%
More than once a month	29	9.7%

Healthcare Visits	Frequency	Percent
Once a month	46	15.3%
Total	**300**	**100.0%**

Source: Field Data (2025)

The study also sought to ascertain the frequency at which the NHIS beneficiaries visit credentialed healthcare providers in a year to seek services. The data shows that 22.7% of the respondents indicated they visits the hospital every 2-3 months, and 22.0% of the respondents indicated they visits the hospital annually. Those who visits the hospital every 6 months constituted 21.7% of the entire respondents. Also, 15.3% of the respondents visits the hospital once a month, whereas those who visits the hospital less than once a month accounted for 8.7% of the respondents. Lastly, only 9.7% of the respondents indicated they visit the hospital more than once a month.

4.4 Quantitative Results

4.4.1 Descriptive Statistics

Table 7: Evaluating Equity in Access to Healthcare under NHIS in Ghana

Equity Dimensions	Statements (Items)	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Std dev
Equality of Utilization Based on Need	NHIS beneficiaries receive healthcare services according to their health needs.	115	155	13	15	2	4.2200	0.80025
	Access to healthcare services under NHIS is prioritized based on the severity of health conditions.	94	142	35	23	6	3.9833	0.95888
	NHIS ensures that beneficiaries with chronic conditions receive adequate care compared to those with minor ailments.	92	148	34	25	1	4.0167	0.88638
Equality of Opportunity/Access	All NHIS beneficiaries have equal opportunities to access healthcare services.	90	167	26	15	2	4.0933	0.80006
	NHIS-covered healthcare facilities are easily accessible to everyone, regardless of their location.	92	176	25	6	1	4.1733	0.68668

Equity Dimensions	Statements (Items)	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Std dev
	NHIS beneficiaries do not face barriers to accessing healthcare services due to financial constraints.	77	134	37	39	13	3.7433	1.10825
Equality of Choice Sets	NHIS beneficiaries have equal access to a variety of healthcare providers and services.	77	165	39	16	3	3.9900	0.83199
	I have the ability to choose between different healthcare facilities under NHIS.	88	177	18	16	1	4.1167	0.76486
	NHIS offers beneficiaries the option to seek specialized care when necessary.	85	158	31	24	2	4.0000	0.87706
Equality of Access among less advantaged	NHIS beneficiaries from both advantaged and disadvantaged social groups receive equal treatment.	87	166	25	21	1	4.0567	0.82607
	There are no disparities in healthcare access under NHIS based on social or economic status.	79	166	27	20	8	3.9600	0.92805

Equity Dimensions	Statements (Items)	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Std dev
	NHIS ensures that people from less privileged backgrounds can access the same level of care as those from more privileged backgrounds.	79	173	33	13	2	4.0467	0.77879
Equality of Outcomes	NHIS ensures that all beneficiaries, regardless of their background, achieve similar health outcomes.	76	181	28	13	2	4.0533	0.76098
	The quality of care received under NHIS results in equitable health improvements across different social groups.	68	193	20	18	1	4.0300	0.75121
	NHIS programs reduce health disparities between socially advantaged and disadvantaged groups.	85	171	27	16	1	4.0767	0.78284

Source: Field Data (2025)

As part of achieving the objective of the study, the researcher sought to evaluate equity in access to healthcare under the NHIS in Ghana using the equity dimensions. The result from the table 7 shows that respondents opinion ranged from strongly agree to strongly disagree. The interpretation of these responses have been made using mean and standard deviations.

To begin with, one of the equity dimensions that was used to evaluate equity in access to healthcare under NHIS is equality of utilization based on need. From the results, the respondents appear to have a positive response towards the various statements used to measure this dimension. For instance, the statement: "NHIS beneficiaries receive healthcare services according to their health needs" had the highest mean value of 4.2200 and a standard deviation of 0.80025. Also the statement: "NHIS ensures that beneficiaries with chronic conditions receive adequate care compared to those with minor ailments" had a mean and standard deviation values of 4.0167 and 0.88638 respectively. Furthermore, the statement: "Access to healthcare services under NHIS is prioritized based on the severity of health conditions" had a mean and standard values of 3.9833 and 0.95888 respectively. The higher mean and low standard deviation values of the various statements suggest that respondents strongly agree or agree with the extent of equity in access to healthcare services offered to NHIS beneficiaries.

Secondly, equality of opportunity or access was among the various dimensions that was employed in the study. From the results, the respondents strongly agreed that: "NHIS-credentialed healthcare facilities are easily accessible to every beneficiary, regardless of their location". This statement was supported by a mean value of 4.1733 and standard deviation of 0.68668. The respondents also agreed with the statement: "All NHIS beneficiaries have equal opportunities to access healthcare services". The statement also recorded a mean value of 4.0933 and a standard deviation of 0.80006 from respondents. In addition, the statement: "NHIS beneficiaries do not face barriers to accessing healthcare services due to financial constraints" also recorded a positive reaction from the respondents. The statement had a mean

and standard deviation values of 3.7433 and 1.10825 respectively. In general, the high mean value indicates that NHIS beneficiaries perceive equal opportunity in access to healthcare services. However, the standard deviation values reveal some variability in the responses, suggesting that whereas the majority of respondents strongly agreed with the statements, there were still notable differences in opinions.

Another equity dimension sought to determine whether or not the NHIS beneficiaries have equal choice to different healthcare service providers under the scheme. Evidence from the results shows that majority of the respondents had positive reaction towards the various statements that was used to assess the equality of choice set dimension. For instance, the statement: "I have the ability to choose between different healthcare facilities under NHIS" had a very high mean value of 4.1167. The statement also had a standard deviation of 0.76486 indicating less variability in response. Another statement notably: "NHIS offers beneficiaries the option to seek specialized care when necessary." had quite a remarkable reaction from the respondents. The statement had a mean and standard deviation values of 4.000 and 0.87706 respectively. Further, the respondents also strongly agreed with the statement: "NHIS beneficiaries have equal access to a variety of healthcare providers and services". The statement recorded a mean value of 3.9900 and a standard deviation of 1.10825. In general, the high mean values recorded in this dimension suggest that there is equality in the choice set to different healthcare service providers under the NHIS in Ghana.

The fourth equity dimension sought to determine equality of access among the less advantaged. The results from the table 4.7 suggest that: "NHIS beneficiaries from both advantaged and disadvantaged social groups receive equal treatment". This statement had a mean value of 4.0567 and standard deviation of 0.82607, suggesting that respondents generally had similar opinions. In addition, the respondents strongly agreed to the statement: "NHIS ensures that people from less privileged backgrounds can access the same level of care as those from more

privileged backgrounds". The statement recorded a mean and standard deviation of 4.0467 and 0.77879 respectively. Further, the respondents strongly agreed to the statement: "There are no disparities in healthcare access under NHIS based on social or economic status". The statement had a mean value of 3.9600 and a standard deviation of 0.92805. The mean value and standard deviation from the responses suggests that there are perceived disparities in access to healthcare under the NHIS based on social or economic status.

Finally, equality of outcomes was among the various dimensions that was employed in the study. From the results, respondents strongly agreed to the statement: "NHIS programs reduce health disparities between socially advantaged and disadvantaged groups". This statement recorded a mean value of 4.0767 and standard deviation of 0.78284, indicating a high acceptance. The respondents also agreed to the statement: "NHIS ensures that all beneficiaries, regardless of their background, achieve similar health outcomes". The statement recorded a mean value of 4.0533 and a standard deviation of 0.76098 indicating strong agreement. Additionally, the statement: "The quality of care received under NHIS results in equitable health improvements across different social groups" recorded a positive reaction from the respondents. The statement had a mean and standard deviation values of 4.0300 and 0.75121 respectively. In general, the high mean values recorded indicates that NHIS beneficiaries perceive equality in outcomes to healthcare services. However, the standard deviation values recorded also revealed some variability in the responses, suggesting that while the majority of respondents strongly agreed with the statements, there were still notable differences in their opinions.

Table 8: Examining Quality of Healthcare Services under NHIS in Ghana

Quality Dimensions	Statements (Items)	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Std dev
Tangibility	The NHIS-covered healthcare facilities are clean and well-maintained.	76	180	33	9	2	4.0633	.73561
	The medical equipment used is modern and up to standard.	74	164	38	20	4	3.9467	.87160
	The healthcare staff appear professional and presentable.	82	174	37	7		4.1033	.69349
Reliability	The healthcare services under NHIS are consistently reliable.	76	169	33	20	2	3.9900	.83199
	NHIS healthcare providers accurately diagnose my health conditions.	68	193	29	9	1	4.0600	.68652
	The healthcare staff deliver care in a timely manner.	70	165	38	25	2	3.9200	.86570
Responsiveness	The healthcare staff are quick to respond to my needs.	72	177	35	13	3	4.0067	.78869
	I am attended to quickly during my visits to NHIS facilities.	66	166	46	20	2	3.9133	.83355

	The staff are willing to answer my questions and provide assistance.	72	186	24	18		4.0400	.74851
Assurance	I feel confident in the abilities of healthcare staff at NHIS facilities.	59	202	23	15	1	4.0100	.71057
	The staff are courteous and respectful.	65	163	49	22	1	3.8967	.83365
	The healthcare providers explain my health condition and treatment clearly.	76	168	35	21		3.9967	.80757
Empathy	The healthcare providers show genuine concern for my well-being.	63	185	37	14	1	3.9833	.74267
	The staff take the time to listen to my concerns.	75	168	39	18		4.0000	.78872
	I receive personalized care at NHIS facilities.	70	175	32	23		3.9733	.80506

Source: Field Data (2025)

Table 8 presents descriptive results on participants' perceptions regarding the quality of healthcare services provided under the NHIS. The quality of healthcare under NHIS has been assessed using quality dimensions such as tangibility, reliability, responsiveness, assurance and empathy. The interpretation of these results have been made using the mean and standard deviations of the responses received for the various statements.

The study sought to examine quality of healthcare under NHIS in Ghana using Tangibility dimension. From the results, the respondents reacted positively towards the various statements used to measure this dimension. For example, the statement: “The healthcare staff appear professional and presentable.” had the highest mean value of 4.1033 and a standard deviation of 0.69349. The low standard deviation suggest that majority of the respondents’ shared similar opinion. Again, the respondents strongly agreed to the statement “The NHIS-credentialed healthcare facilities are clean and well-maintained.” with a mean and standard deviation values of 4.0633 and 0.73561 respectively. Moreover, the statement: “The medical equipment used is modern and up to standard” had a mean and standard values of 3.9833 and 0.95888 respectively. The overall mean values are high for the statements, indicating positive perceptions of health care quality under the NHIS generally. The relatively low standard deviation values recorded indicates general agreement with the statements but some dispersion among respondents especially on statement regarding the modernity of medical equipment used to providing services.

Secondly, Reliability dimensions was also employed to assess the quality of healthcare services under NHIS. From the results, the respondents strongly agreed to the statement: “NHIS healthcare providers accurately diagnose my health conditions”. This statement recorded a mean value of 4.0600 and standard deviation of 0.68652. The respondents also agreed with the statement: “The healthcare services under NHIS are consistently reliable”. The statement also recorded a mean value of 3.9900 and a standard deviation of 0.69349. Again, the statement:

"The healthcare staff deliver care in a timely manner" also recorded a positive reaction from the respondents with mean and standard deviation values of 3.9200 and 10.86570 respectively. The high mean values recorded indicates that NHIS beneficiaries perceive healthcare services delivered under the NHIS as reliable. Conversely, the standard deviation values reveal some variability in the responses, suggesting that whereas the majority of respondents generally agreed with the statements, there were respondents with quite a different opinion.

Also, the responsiveness dimension was used to evaluate the quality of healthcare delivered under the NHIS. The results recorded indicates that majority of the respondents reacted positively towards the various statements under the responsiveness dimension. For instance, the statement: "The staff are willing to answer my questions and provide assistance" had a very high mean value of 4.0400 and a standard deviation of 0.74851 indicating less variability in responses. Another statement: "The healthcare staff are quick to respond to my needs" recorded quite a remarkable positive reaction from the respondents. The statement had a mean and standard deviation values of 4.0067 and 0.78869 respectively. Further, the respondents also strongly agreed with the statement: "I am attended to quickly during my visits to NHIS facilities". The statement recorded a mean value of 3.9133 and a standard deviation of 0.83355. Overall, the high mean values recorded under this dimension suggest a positive perception of responsiveness in delivery of healthcare services under the NHIS in Ghana.

Again, the assurance dimension was also employed to assess the quality of healthcare delivery under the NHIS in Ghana. The results from the table suggest that majority of the respondents strongly agreed to the various statement under this dimension. For instance, the statement: "I feel confident in the abilities of healthcare staff at NHIS facilities" recorded a mean value of 4.0100 and standard deviation of 0.71057, suggesting that respondents shared similar views on the statement. In addition, the respondents strongly agreed to the statement: "The healthcare providers explain my health condition and treatment clearly". The statement recorded a mean

and standard deviation values of 3.9967 and 0.80757 respectively. Further, the respondents strongly agreed to the statement: “The staff are courteous and respectful”. The statement recorded a mean value of 3.8967 and standard deviation of 0.83365. The generally high mean values and low standard deviations recorded indicates strong agreement with the assurance dimension of quality in healthcare, reflecting positive perceptions of healthcare staff competence and professionalism in the delivery of services.

Finally, empathy was also employed to measure the quality of healthcare delivery under the NHIS in Ghana. From the results, the respondents strongly agreed to the statement: “The staff take the time to listen to my concerns”. This statement recorded a mean value of 4.0000 and standard deviation of 0.78872. Again, the respondents also agreed with the statement: “The healthcare providers show genuine concern for my well-being”. The statement also recorded a mean value of 3.9833 and a standard deviation of 0.74267. Further, the statement: “I receive personalized care at NHIS facilities” also recorded a relatively positive reaction from the respondents with mean and standard deviation values of 3.9733 and 0.80506 respectively. In general, the high mean values and low standard deviations recorded suggest most respondents shared similar positive views with slight variation in their perceptions.

The generally high mean and low standard deviation values recorded to the various quality dimensions demonstrates a positive outlook on the perception of NHIS beneficiaries to the quality of healthcare services provided, which is an important dimension for evaluating equity in access to healthcare under the NHIS in Ghana.

Table 9: Assessing Patients' Satisfaction with Healthcare Services under NHIS

Statements (Items)	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Std dev
I am satisfied with the quality of care I receive from NHIS-credentialed facilities.	74	174	28	21	3	3.9833	.84386
Healthcare staff at NHIS-credentialed facilities are responsive to my needs.	66	187	30	15	2	4.0000	.76285
Waiting times at NHIS credentialed facilities are reasonable.	69	166	36	22	7	3.8933	.91911
I am satisfied with the availability of medications under NHIS.	69	152	45	27	7	3.8300	.96134
The referral process within NHIS facilities is effective.	51	166	62	20	1	3.8200	.80192
I can easily access specialized care through the NHIS.	55	167	43	34	1	3.8033	.87972
I am generally satisfied with the healthcare services provided under NHIS.	55	166	39	30	10	3.7533	.97759

Source: Field Data (2025)

The study also sought the perception of NHIS beneficiaries on their level of satisfaction with the delivery of healthcare services under the NHIS in Ghana. Participant's responses ranged from strongly agree to strongly disagree. The interpretations of the results have been made using the mean and standard deviations values recorded. From table 9, majority of the respondent agreed to the statement: "Healthcare staff at NHIS-credentialed facilities are responsive to my needs". The statement had the highest mean value of 4.0000. This indicates that a greater number of the respondents agreed with the statements, and the standard deviation of 0.76285, suggest little variability in the views or opinions of most respondents.

The respondents also reacted positively to the statement: "I am satisfied with the quality of care I receive from NHIS-credentialed facilities". The statement recorded the second highest mean value of 3.9833 and a standard deviation of 0.84386. Again, respondents appear to have a high level of satisfaction with the timeliness of the healthcare services received under the NHIS. A considerable number of respondents agree to the statement: "Waiting times at NHIS facilities are reasonable". The statement recorded a mean and a standard deviation values of 3.8933 and 0.91911 respectively. Also, though a significant section of the respondents strongly agrees with the statement: "I am satisfied with the availability of medications under NHIS". The recorded mean value of 3.8300 and standard deviation of 0.96134, suggest some variability in perception of respondents on availability of medications under the NHIS.

Additionally, a greater portion of the respondents strongly agree with the statement: "The referral process within NHIS facilities is effective". The statement also recorded a mean value of 3.8200 and standard deviation of 0.80192, suggesting that a greater number of the respondents shared comparable opinions. Similarly, the statement: "I can easily access specialized care through the NHIS" also recorded positive responses with a mean value of 3.8033 and standard deviation of 0.87972. Moreover, a considerable proportion of the respondents also agree with the statement: "I am generally satisfied with the healthcare services

provided under NHIS". The statement recorded mean value and a standard deviation of 3.7533 and 0.97759 respectively, suggesting some variability in responses. In general, the results from the descriptive table above indicates that statements measuring anchoring bias had positive mean values between 4.0000 and 3.7533 as well as standard deviations between 0.97759 and 0.76285. This suggest that NHIS beneficiaries are quite satisfied with the quality of healthcare services delivered at various credentialed healthcare facilities.

4.4.2 Inferential Analysis

4.4.2.1 Chi-Square Test Results for Sociodemographic Variables and Healthcare Access under NHIS

Table 10: Chi-Square Test

Sociodemographic Variable	Chi-Square Value	df	Asymptotic Significance (2-sided)	Likelihood Ratio	Linear-by-Linear Association
Age	57.945	20	0.000	42.469	0.051
Gender	2.781	4	0.595	2.814	1.291
Education	40.102	8	0.000	39.336	1.696
Employment	10.415	12	0.580	11.918	0.175

Source: Field Data (2025)

The results from the Chi-Square test reveal that there is a statistically significant difference in access to healthcare under NHIS regarding some sociodemographic factors. The variable Age results in a Pearson Chi-Square value of 57.945 with a significance level of 0.000, indicates that age is a factor that significantly influences access to healthcare services. Also, the Education variable presents a significant relationship in access to healthcare with the Chi-

Square of 40.102 and the 0.000 level of significance, indicating that educational status is a determinant that influences access to healthcare services under the NHIS in Ghana.

On the other hand, the results for Gender and Employment, indicates that there were no significant differences noted in access to health care on the bases of gender and employment status. The Gender Chi-square results indicated a value of 2.781 with significance level of 0.595 and Employment value of 10.415 with 0.580 significance. These particular variables therefore do not significantly impact access to healthcare under the NHIS as determined by the analysis. Whereas the two sociodemographic variables of age and education were identified from the Chi-square test results as major contributors to health inequalities in terms of access under the NHIS, gender and employment status had no such significant impact.

4.5 Qualitative Results

4.5.1 The Adequacy and Availability of Healthcare Services Covered by the NHIS

The results presented in this section are based on interviews with hospital staff, management, and NHIS personnel, aimed at assessing the adequacy and availability of healthcare services covered under the National Health Insurance Scheme (NHIS). The analysis focused on the perceived effectiveness and reach of NHIS in providing essential health services to the population, as well as the availability and access to these services across different regions. The themes derived from the interviews included: Comprehensive Coverage of Essential Health Services, Concentration of Healthcare Providers in Urban Areas, and Sufficiency of Coverage for Preventive Healthcare, Access to Maternal and Child Health Services, and Availability of Healthcare Services in Rural Areas. These themes reflect the perspectives of healthcare providers and NHIS staff on the current state of NHIS services coverage.

4.5.1.1 Comprehensive Coverage of Essential Health Services

The comprehensiveness of healthcare coverage under the NHIS is central to measuring equity in access to healthcare and determining whether the services provided meet the essential health needs of the population. Interviews with hospital staff, management, and NHIS personnel reveal varied perspectives on the adequacy of the scheme in covering essential healthcare services. These views help to gauge whether the scheme provides a broad and sufficient range of services that align with the health priorities of the population and promotes equity.

A hospital manager highlighted the importance of comprehensive coverage in ensuring that patients have access to basic medical care. He stated:

> *"The NHIS covers a wide range of essential services, but certain advanced treatments, such as cancer care and some specialized surgeries, are not adequately covered. We still see patients who require these services seek out-of-pocket options or go without the needed care."* (Interviewee 3)

This quote reflects the concern that while NHIS provides a broad range of services, there are notable gaps, especially in specialized care. The hospital manager's comment suggests that the core services like general healthcare are available, but specialized care—critical for patients with chronic or complicated conditions—is often lacking. Such gaps in coverage can compromise the overall adequacy of the scheme and limit its ability to fully meet the healthcare needs of beneficiaries.

Further elaborating on the topic, a senior staff member from the NHIS office pointed out:

> *"While we have seen significant improvement in the coverage of primary healthcare services, there are still areas such as mental health, dental*

services, and some diagnostic tests that are not fully covered, which leaves people vulnerable, especially in rural areas." (Interviewee 12)

This perspective underscores the persistent gaps in coverage, particularly in mental health and other specialized services. Despite efforts to improve the range of services covered by the NHIS, some essential areas remain excluded, which could have a significant impact on patients' health outcomes. The exclusion of such services from the NHIS benefit package means that certain vulnerable populations may not be able to access the care they need, exacerbating health inequities across different regions of the country. Hospital staff and NHIS personnel alike recognize the broad coverage of essential services under the NHIS, but they point to critical gaps that hinder its capacity to fully meet the healthcare needs of the population. While primary healthcare services have improved, advanced and specialized services, such as cancer treatment, mental health care, and certain diagnostic tests, remain insufficiently covered. These gaps not only limit the adequacy of healthcare services provided but also contribute to disparities in access to care, especially for vulnerable groups in rural areas. Expanding coverage to include these essential services would better address the diverse health needs of the population, creating a more comprehensive and equitable access to healthcare.

4.5.1.2 Concentration of Healthcare Providers in Urban Areas

The availability and distribution of healthcare providers is a crucial factor influencing access and the effectiveness of healthcare delivery under the NHIS. Urban dwellers often experience better access to healthcare due to the higher concentration of medical professionals and credentialed health facilities. However, an equitable distribution of healthcare providers across the regions and districts will ensure consistency in service delivery, and significantly improve equity in access.

A senior staff member from the NHIS office noted:

> *"In urban areas, we have an abundance of healthcare providers, which allows for timely and effective service delivery. However, the distribution of services in rural areas is far less robust, leading to disparities in healthcare access."* (Interviewee 12)

This comment highlights the uneven distribution of healthcare providers, with urban areas benefiting from a higher concentration of skilled professionals. While urban areas have a competitive advantage, the lack of sufficient providers in rural areas continues to create healthcare access gaps. Studies on healthcare delivery in sub-Saharan Africa consistently show that urban centers tend to attract more healthcare professionals due to better infrastructure and incentives, exacerbating regional health disparities (UNICEF, 2019).

A hospital manager in a major urban facility added:

> *"We have sufficient healthcare providers to meet the demand in our hospital, and patients can often access the services they need without long waiting times."* (Interviewee 6)

This reinforces the notion that urban areas are well-served with healthcare professionals readily available to meet patient needs. However, while urban areas are adequately served, addressing the disparities in rural areas remains a challenge for the NHIS to provide equitable access to healthcare for all citizens.

4.5.1.3 Sufficiency of Coverage for Preventive Healthcare

The NHIS provides a broad range of benefit package and healthcare services often described as generous, ensuring that beneficiaries can maintain their health and prevent future health

complications. Preventive care, such as regular screenings, immunizations, and health check-ups, which are key components of an effective and responsive health system are included.

A hospital staff member stated:

> *"NHIS is especially beneficial when it comes to preventive healthcare. It covers regular screenings and health checks-ups, which helps people maintain their health and avoid future complications."* (Interviewee 2)

This reflects the value of preventive services under the NHIS in proactively addressing health risks before they progress into complications. The provision of regular health assessments, such as cancer screenings and check-ups, underscores the NHIS's role in supporting overall long-term health and reducing the burden of preventable diseases.

Additionally, a healthcare provider mentioned:

> *"The program provides access to routine check-ups, vaccinations, and screenings that promote overall health, which helps reduce the occurrence of preventable diseases."* (Interviewee 8)

This statement underscores NHIS's emphasis on preventative healthcare, including essential immunizations and early detection screenings that contribute to public health improvement. Through these services, NHIS contributes significantly to reducing the incidence of preventable complications and disabilities.

Overall, the responses suggest that NHIS's preventive healthcare coverage is adequate and plays a vital role in minimizing morbidity and mortality, contributing to improved health outcomes and access for beneficiaries.

4.5.1.4 Access to Maternal and Child Health Services

The NHIS provides free access to Maternal and child health services as a policy, with the benefit package covering essential services throughout pregnancy, childbirth, and neonatal care. This focus on maternal and child health helps improve health outcomes for both mothers and infants, reducing maternal and infant mortality rates.

A hospital staff member emphasized:

> *"For mothers and children, NHIS covers a significant portion of the services needed, from prenatal care to postnatal check-ups, which ensures better health outcomes for mothers and infants."* (Interviewee 5)

This statement highlights the comprehensive coverage for mothers and children, ensuring that essential services such as prenatal visits, delivery, and postnatal care are included under NHIS and provided across all levels of healthcare. These services help to promote equity in access, ensuring that mothers receive the care they need during pregnancy and childbirth, for improved health outcomes.

A senior hospital staff member added:

> *"The coverage of maternal health services under NHIS is a real strength. It ensures that both childbirth and antenatal care are accessible to most people, which has contributed to a decrease in maternal mortality rates."* (Interviewee 7)

This point underscores the effectiveness of NHIS in improving access to essential maternal health services, particularly antenatal, delivery and postnatal care. Such services have been crucial in reducing maternal mortality and improving overall maternal health outcomes.

Finally, an NHIS personnel noted:

> *"I've noticed that NHIS covers essential maternal health services like deliveries and check-ups, which has made a difference in ensuring that women and children get the care they need."* (Interviewee 14)

This further reinforces the adequacy of NHIS in providing comprehensive maternal and child health coverage, ensuring that critical services are accessible to the majority of the population. Through this robust coverage, the NHIS has contributed to improving equity in access to these critical services leading to positive maternal and child health outcomes in Ghana.

4.5.1.5 Availability of Healthcare Services in Rural Areas

Healthcare access in rural areas has historically been limited, but NHIS has significantly contributed to improving availability through strategic initiatives aimed at expanding service provision. Though rural areas have faced challenges with healthcare accessibility in the past, there is growing evidence of improved service availability through extensive expansion of NHIS credentialing to Community-based Health Planning Services (CHPS) compounds, and private healthcare providers.

A senior NHIS staff member observed:

> *"Although NHIS provides extensive coverage in urban areas, it's encouraging to see that rural areas are beginning to see more healthcare providers accepting NHIS, expanding the availability of services for those in remote locations."* (Interviewee 11)

This statement highlights a key development: NHIS is increasingly accepted by healthcare providers in rural areas, thus expanding the reach of healthcare services. The growing network

of NHIS-credentialed providers in these areas is a promising step towards bridging the rural-urban healthcare gap, making essential services more accessible to those living in remote locations and promoting equity in access for beneficiaries.

A hospital manager remarked:

> *"NHIS is making a difference in rural areas as more rural clinics and health centers are now part of the network, providing more accessible care to people who previously had limited options."* (Interviewee 13)

This reinforces the impact of NHIS in making healthcare more accessible in rural settings. As rural clinics become more involved with NHIS, the population has increased access to primary healthcare services, which were previously inaccessible.

Furthermore, an NHIS staff member shared:

> *"In rural regions, NHIS has improved the availability of healthcare services, particularly through partnerships with local clinics and mobile health services that bring healthcare closer to remote populations."* (Interviewee 1)

This emphasizes how NHIS has leveraged partnerships and technology to reach remote areas, providing a wider array of healthcare options to rural populations. This initiative represents a crucial step in ensuring that healthcare is not limited to urban settings, contributing to improvement in equitable healthcare access.

4.5.2 The challenges faced in the implementation and operation of the NHIS in Ghana

Through interviews with hospital staff, management, and NHIS personnel, the study discovered several challenges faced in the implementation and operation of the NHIS, which directly impact equity in access to healthcare by beneficiaries. Key issues include misconceptions and lack of awareness among clients, leading to unrealistic expectations; financial sustainability and reimbursement issues that affect healthcare providers; and limited access to healthcare services, particularly in remote areas. Furthermore, inadequate infrastructure and credentialing problems hinder service delivery, while operational and administrative inefficiencies complicate the overall functioning of the scheme. These challenges reveal the complexities of ensuring that the NHIS effectively provides affordable and accessible healthcare for all beneficiaries.

4.5.2.1 Misconceptions and Lack of Awareness among Clients

Misconceptions and a lack of awareness among clients pose a significant challenge in the implementation and operation of the NHIS. These gaps in understanding often lead to unrealistic expectations, dissatisfaction, and confusion, complicating the delivery of healthcare services. Clients' misunderstandings about essential processes like membership renewal and coverage restrictions create a cycle of frustration and inefficiency.

Personnel from a healthcare facility highlighted that,

"Some of the clients have a misconception about it, in terms of its renewal, and the duration that it will take for the renewal to take effect."

(Interviewee 1).

This comment indicates a critical gap in communication between NHIS providers and beneficiaries. Misunderstandings regarding the time frame for membership renewal can lead

to delays in accessing healthcare, resulting in frustration among clients when they are unable to utilize their benefits promptly at the point of need. Such confusion highlights the importance of improving communication with beneficiaries about the necessary timelines and processes involved in membership renewal for uninterrupted services.

Another staff member added that,

"They think that once they come in, everything is totally free. Meanwhile, NHIS has its prices." (Interviewee 3).

This statement underscores a misconception that NHIS covers all healthcare services without any cost to the beneficiaries. While NHIS does cover a range of services, certain treatments and procedures still require out-of-pocket payments. This misunderstanding can result in dissatisfaction and a loss of trust in the NHIS when beneficiaries are confronted with unexpected costs. These misconceptions create a significant barrier to membership enrolment and the effective operation of the NHIS. To mitigate this challenge, continuous education and clearer communication with clients about the specific benefits of the NHIS, would help to manage expectations and reduce the frustration that often arises due to these misunderstandings. Improving beneficiary education and awareness efforts would contribute to enhanced beneficiary satisfaction and overall operational efficiency of the NHIS.

4.5.2.2 Financial Sustainability and Reimbursement Issues

Financial sustainability and reimbursement issues present significant challenges to the implementation and operation of the NHIS. These financial hurdles, especially the disparity between the costs incurred by healthcare providers and the reimbursements received from NHIS, directly impact the quality and efficiency of healthcare services. The mismatch between the market price for services and the reimbursement rates from NHIS contributes to frustration

among healthcare providers, who feel that the system is not adequately compensating them for their services.

A healthcare provider explained that,

"The issue of co-payment... service providers think that how much is reimbursed do not meet the market price." (Interviewee 2).

This comment highlights a central concern about the financial sustainability of the NHIS from the perspective of service providers. The reimbursement rates offered by NHIS are often perceived insufficient to cover the actual costs incurred by healthcare providers, leading to financial strain and a reduction in the quality of care that can be provided. The gap between reimbursement rates and actual cost of services is a significant source of dissatisfaction for healthcare providers, who find it difficult to maintain high standards of care while operating under such financial constraints, resulting in demand for extra payment from beneficiaries.

Another staff member pointed out that,

"You realize that the NHIS prices, that ideally are paid with the Regional Medical stores prices, are fixed, so when it happens like that, you realize that you buy the drug at a price A, which is high, and you are getting paid price B, which is low." (Interviewee 4).

The above emphasizes the issue of fixed pricing for drugs and the discrepancy between the actual market cost of drugs received by healthcare providers and what they are reimbursed by NHIS. The disparity in pricing for essential medicines creates a financial burden on service providers, making it difficult for them to offer affordable and quality care while facing such economic challenges. These pricing challenges significantly affect the operational efficiency of healthcare providers which is often passed on to beneficiaries of the NHIS, thereby creating

dissatisfaction among beneficiaries and fuelling negative perception of the NHIS. To address this challenge, a more flexible reimbursement approach that responds for market fluctuations in prices could enhance operational efficiency of healthcare providers, minimize the incidence of co-payments and foster better cooperation between healthcare providers and the NHIS, to improve equity in access for all beneficiaries.

4.5.2.3 Limited Access and Availability of Healthcare Services in Remote Areas

Limited access and availability of healthcare services in remote areas represent a significant challenge to the effective implementation of the NHIS affecting equity in access to healthcare. The lack of specialized healthcare services in rural and remote areas directly impacts beneficiaries' ability to receive timely and adequate care. Traveling to urban areas for specialized treatment, coupled with the high costs associated with such travel, further exacerbates the difficulties confronting beneficiaries living in rural areas to accessing essential healthcare services under the NHIS.

Healthcare personnel highlighted that,

"People will have to travel to facilities that have this expertise to access.

And it is costly to them." (Interviewee 5).

This statement underscores the financial burden faced by beneficiaries in remote areas who must travel long distances to reach healthcare facilities equipped with the necessary expertise for treatment. For many beneficiaries in rural areas, the cost of transportation and sometimes accommodation and the inconvenience of traveling long distances present a significant barrier to accessing healthcare, thus compromising the overall effectiveness of the NHIS in providing equitable healthcare access.

Another interviewee, a healthcare provider, noted that,

"Most of the time, the remote facilities have this CHPS compound. As for diseases, depending on your location, you can get any medical condition or disease. But the services that CHPS compound can render is limited."

(Interviewee 1).

This observation reveals that while rural areas may have basic healthcare facilities, such as Community-based Health Planning and Services (CHPS) compounds, these facilities are often under-resourced and unable to handle a wide range of medical conditions. The limited capacity of these facilities to treat complex or specialized conditions forces beneficiaries to seek care elsewhere, often at considerable cost. The limited access and availability of healthcare services in remote areas presents a major barrier to equitable access to healthcare, and achieving universal health coverage under the NHIS. To address this requires a holistic approach including increasing investment in healthcare infrastructure in rural areas, expanding the scope of services provided at local health facilities, incentivizing healthcare professionals to accept posting to remote areas, and improving transportation options and network to enhance healthcare accessibility and reduce the financial burden on beneficiaries in these areas.

4.5.2.4 Inadequate Infrastructure and Credentialing Limitations

Inadequate infrastructure and credentialing limitations pose significant challenges to the successful implementation and operation of the NHIS, particularly in rural and underserved areas. While some healthcare providers in these areas may have the necessary resources, NHIS credentialing limitations hinder their ability to fully serve the needs of NHIS beneficiaries.

Personnel from a healthcare facility pointed out that,

"Sometimes they have what it takes, but they are not credentialed to provide those services." (Interviewee 2).

This observation highlights a critical issue faced by some healthcare providers, where despite having the resources or expertise, they are unable to offer certain services under the NHIS due to limitations in credentialing. The absence of required credentials limits their ability to expand the range of services available to NHIS beneficiaries, thereby restricting access to necessary care.

Additionally, an interviewee involved in healthcare management noted,

"We need to work with maybe the Ghana Health Service and the service provider to see how best we can upgrade some of the facilities." (Interviewee 3).

This statement suggests that improving access to healthcare, particularly in rural or underserved areas, requires collaboration between public and private healthcare service providers and other governmental agencies. Such collaboration is crucial to addressing the gaps in healthcare delivery, ensuring that facilities are adequately equipped, and providers are properly credentialed to offer a wider array of services. The challenges related to inadequate infrastructure and credentialing not only limit healthcare access but also contribute to unequal healthcare provision across different areas. Addressing these challenges requires coordinated and deliberate efforts to improve both the physical and operational capabilities of healthcare facilities, ensuring that they meet the required standards for service delivery under the NHIS.

4.5.2.5 Challenges in Operational and Administrative Efficiency

Challenges in operational and administrative efficiency play a crucial role in the difficulties confronted by the NHIS. Delays in reimbursement, capping of the funding by central

government, and high administrative cost all contribute to operational and administrative inefficiencies, leading to dissatisfaction among healthcare providers, and directly affecting the beneficiary experiences and perceptions.

An NHIS personnel emphasized,

"There have been delays in payments of claims... if we improve on the delays, it will help so that we can pay promptly to service providers." (Interviewee 4).

This quote underlines the frustration that delays in reimbursement create for healthcare providers. Timely reimbursement is essential to maintain the trust and motivation of service providers, as delays can disrupt their financial operations and limit their ability to continue offering services. Improvement in reimbursement could have a significant positive impact on the overall functioning of the NHIS and beneficiary experience.

Additionally, another staff member from the NHIS remarked,

"The capping of our funds is something that once we put in place measures to uncap it, it will help the National Health Insurance." (Interviewee 5).

This highlights a financial constraint within the NHIS, where funding limitations, such as the capping of funds, hinder its ability to effectively support service providers. Removing or adjusting these funding caps could ensure that the NHIS is better equipped to handle their commitment to healthcare providers, leading to more efficient and effective service delivery. Both quotes pointed to operational inefficiencies that not only affect healthcare providers but also directly influence the quality of services offered to beneficiaries. Streamlining reimbursement to providers and removing funding limitations are essential steps in addressing these operational and administrative challenges, to improve access and confidence in the NHIS.

4.5.3 Practical Changes to Improve the Sustainability and Efficiency of NHIS

The analysis explores practical changes that hospital staff, management, and NHIS personnel believe could improve the financial sustainability and administrative efficiency of the National Health Insurance Scheme (NHIS). Based on the interviews, four key themes emerged that addresses critical areas of improvement. These themes include Review and Adjustment of Tariffs, Improved Administrative Processes through Technology, Expanding Drug Coverage and Quality Assurance, and Enhancing Specialist Involvement and Compensation. These insights offer actionable recommendations for refining the NHIS operations.

4.5.3.1 Review and Adjustment of Tariffs

One of the key recommendations provided by the interviewees was the need for regular reviews and adjustments of the NHIS tariffs. The regular adjustment is essential to ensure that the tariffs align with the actual costs of providing healthcare services to accommodate the rising inflation and the increasing expenses healthcare providers face. In light of these rising costs, adjusting the tariffs would enable NHIS ensure that service providers continue to offer high-quality healthcare to beneficiaries without facing financial strain.

A Hospital Manager emphasized this point, stating that

> *"there is a need for NHIS to review the tariffs to ensure they are reflective of the actual cost of care, especially in the face of inflation. Adjusting tariffs to cover more accurate costs would improve sustainability" (Interviewee 4).*

This quote reflects the reality that the NHIS's current tariff system may be insufficient to meet the operational costs faced by healthcare providers, particularly in the face of inflationary

pressures. The failure to adjust tariffs could lead to challenges in delivering adequate healthcare services, which ultimately affects the overall quality of care and demand for extra out of pocket payment by providers.

Additionally, another interviewee, a hospital administrator, noted that

> *"if NHIS increased tariffs for specialist services and procedures, healthcare providers could offer better care, and patients would benefit from more comprehensive coverage" (Interviewee 2).*

This statement highlights the crucial role of specialist services in healthcare and the direct correlation between adequate tariffs and the availability of comprehensive healthcare services. By increasing tariffs for specialist care, NHIS could ensure that providers are compensated adequately for their expertise, improving both the quality of service and patient outcomes. Therefore, the adjustment of NHIS tariffs is a critical step toward ensuring quality healthcare and improving equity in access to specialist care. Regular tariff reviews would help healthcare providers remain financially viable and enable them to offer comprehensive and high-quality care to beneficiaries, addressing both the economic and service delivery challenges highlighted by interviewees.

4.5.3.2 Improved Administrative Processes through Technology

Another key recommendation that emerged from the interviews was the need for NHIS to adopt advanced technological tools to enhance administrative efficiency. This includes streamlining claims processing, reducing bureaucracy, and minimizing administrative delays, all of which are crucial for improving the overall operation of the NHIS. Technological integration could lead to faster processing times and a more transparent, user-friendly system for both healthcare providers and patients.

A healthcare administrator emphasized the importance of automating administrative processes, stating that

> *"the introduction of an automated system for claims submission and processing would drastically reduce administrative delays and improve the efficiency of NHIS operations"* (Interviewee 7).

The shift to automation is seen as a potential game-changer, eliminating the bottlenecks associated with manual processes and reducing the time required to process claims. Such improvements would result in a smoother experience for all stakeholders, ensuring that healthcare providers receive timely payments and patients benefit from faster service delivery.

Further supporting this viewpoint, another hospital staff member added that

> *"using an electronic billing system could speed up the reimbursement process and reduce paperwork, benefiting both healthcare providers and patients" (Interviewee 6).*

The introduction of an electronic billing system would not only streamline operations but also minimize errors, fraud and abuse, facilitate quicker reimbursements, and ease the administrative burden on healthcare staff. This would directly translate into better service quality and patient satisfaction, making the NHIS a more efficient and effective system. In view of that, incorporating technology into the NHIS administrative processes is a strategic move that could significantly enhance operational efficiency. Both the automation of claims submission, processing and payment, and the implementation of electronic billing systems would alleviate many of the current administrative challenges, improving the speed and accuracy of services provided to both healthcare providers and beneficiaries.

4.5.3.3 Expanding Drug Coverage and Quality Assurance

A vital recommendation from the interviews was the need for NHIS to expand its drug coverage and ensure that medications meet high-quality standards. This expansion is seen as a means to address the challenges of drug shortages, enhance the availability of essential medications, and ultimately improve patient outcomes. Participants emphasized that expanding coverage, particularly for high-demand generics, would be a significant step toward achieving a more effective healthcare delivery by providers.

A hospital manager stated that:

> *"expanding NHIS coverage to include a broader range of medications, especially high-demand generics, would help address drug shortages and improve patient outcomes" (Interviewee 3).*

This quote highlights the crucial role that a wider range of medications, particularly generics, could play in ensuring consistent access to essential medications. By including more generic medications under the NHIS benefit package, patients would have better access to affordable treatments, potentially improving health outcomes and reducing out-of-pocket expenses.

In addition to expanding drug coverage, there was a strong emphasis on maintaining the quality of medications provided under the scheme. As one healthcare professional added,

> *"NHIS should invest in quality assurance programs to ensure that the medications covered are of the highest quality, as this will directly impact patient health outcomes" (Interviewee 5).*

The importance of ensuring quality medications cannot be overstated, as substandard drugs can have detrimental effects on patient health and undermine the trust in the healthcare system.

Implementing quality assurance measures in collaboration with the Ministry of Health and other government agencies, would guarantee that only safe and effective drugs are included in the NHIS coverage, ensuring that the scheme delivers on its promise of providing quality healthcare to beneficiaries without financial constraints at the point of service.

4.5.3.4 Specialist Availability and Compensation

A critical challenge identified by participants, particularly those in the private sector, was the difficulty in attracting and retaining specialists. Financial constraints were highlighted as a major barrier to ensuring that specialists were available on a consistent basis. Interviewees emphasized the direct impact that the inability to afford specialists has on the quality of healthcare services and the overall efficiency in service delivery.

A private healthcare manager shared,

> *"One of the biggest challenges for private facilities is being able to afford specialists on a continuous basis. Paying them to be available 24 hours a day is a major stumbling block" (Interviewee 8).*

This quote illustrates how the financial strain on private facilities affects their ability to provide round-the-clock specialists care, which can significantly limit the quality and accessibility of care provided to beneficiarie. The high costs associated with specialist availability could lead to understaffing or reliance on less qualified personnel, impacting patient outcomes.

Another private sector respondent highlighted the broader implications of this issue:

> *"In the private sector, it's hard to afford specialists, which impacts the overall quality of care. More funding or a review of payment structures could alleviate this issue" (Interviewee 10).*

The lack of adequate funding and the existing payment structures are seen as central factors limiting the ability of private providers to retain specialists. A review of the payment mechanisms or increment in tariffs could provide the necessary financial support for healthcare providers, ensuring that specialists are available and adequately compensated, ultimately leading to improved access to critical care needed by beneficiaries. Addressing the issue of specialist availability and compensation would enhance the overall quality and efficiency of healthcare services, particularly in the private sector. The financial constraints faced by these providers hinder their ability to provide optimal care, and the restructuring payment models or increasing the tariffs to reflect actual cost of services could resolve some of these barriers.

4.6 Chapter Summary

This chapter presents both qualitative and quantitative findings as outlined in the methodology. The quantitative results, derived from a Likert Scale questionnaire, administered to NHIS beneficiaries focused on the equitability of the NHIS, beneficiary experience, and the quality of healthcare services received. Descriptive statistics such as frequencies, means, and standard deviations were used to present respondent opinions, while inferential statistics, particularly the Chi-Square test, was used to assess the influence of sociodemographic factors on healthcare access under the NHIS. The Chi-Square analysis revealed significant differences in healthcare access related to age and education, while gender and employment status were found to have no significant impact. The qualitative results, gathered through interviews with hospital staff, management, and NHIS personnel, explored the adequacy and availability of healthcare services, highlighting themes such as comprehensive service coverage, urban-rural disparities, and access to maternal and child healthcare. The challenges faced in NHIS implementation, including misconceptions, financial sustainability, and administrative inefficiencies, were also discussed. Practical changes to enhance the NHIS's financial sustainability and operational

efficiency were proposed, including tariff adjustments, removing the cap on funding, improved administrative processes through technology, expanded drug coverage, and enhanced specialist compensation, are critical steps to improving access to quality healthcare delivery and financial sustainability of the NHIS in Ghana.

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.1 Introduction

The focus of this study was to assess equity in access to healthcare under the National Health Insurance Scheme (NHIS) in Ghana. In view of that, the study adopted mixed method as part of achieving the objectives of the study. In this chapter, the findings that were obtained through both quantitative and qualitative approaches have been discussed in detail under the various specific objectives highlighted by the study.

5.2 To evaluate the adequacy and availability of healthcare services covered by the NHIS, focusing on specialized care and essential medications.

The study sought to determine the adequacy and accessibility of healthcare services that are funded by the NHIS, namely specialist services and essential medications. Quantitative and qualitative analysis results provided in-depth knowledge of healthcare access experiences of NHIS beneficiaries in specialist services and medications. The quantitative results gauged equality in access to healthcare services under the NHIS using five key indicators: equality of utilization based on need, equality of opportunity/access, equality of choice sets, equality of access among less advantaged groups, and equality of outcomes. The qualitative analysis complemented these results in providing in-depth knowledge of healthcare access and challenges by health providers and NHIS employees.

The analysis of equality of utilization based on need found that beneficiaries of NHIS generally receive healthcare services in accordance to their health needs. The study found that healthcare is prioritized in accordance with health needs to ensure that patients with emergency and chronic conditions receive adequate care. This is in conformity with the health equity principle that argues that those in need of more healthcare should receive more to close gaps (Braveman

& Gruskin, 2003). However, in practical application, there is a challenge in ensuring that all recipients, especially those with chronic and emergency conditions, receive adequate and timely care. The literature shows that even when patients with chronic conditions in Ghana have health insurance, they receive long waiting times and shortages of medicines, which deter their prospects of receiving basic care (Atinga et al., 2018). This shows that even though the NHIS allows for equitable use, systemic inefficiencies in healthcare delivery hinder its actual realization.

Regarding equality of opportunity and access, the study found that NHIS beneficiaries enjoy equal chances to receive healthcare services, and healthcare providers that are credentialed by NHIS are fairly accessible. Nevertheless, there are still some beneficiaries that face financial constraints in accessing healthcare services. Financial access is a key driver of healthcare equity, as out-of-pocket payments can deter low-income households from receiving maximum benefits of NHIS protection (McIntyre et al., 2009). In reality, even though NHIS is intended to provide financial risk protection, informal payments, diagnostic fees, and medicine prices often put financial pressures on the beneficiaries (Aryeetey et al., 2016). This indicates that even though NHIS generally increases access to healthcare, financial constraints continue to be a problem, particularly for lower-income households.

Regarding equality of choice set, the results indicated that NHIS beneficiaries have a variety of healthcare providers and services to choose from, and they could opt to choose between different facilities. Also, NHIS permits beneficiaries to receive specialist services when needed. The concept of choice in healthcare is of great importance, given that more options of providers can lead to higher patient satisfaction and health outcomes (Berger et al., 2019). In Ghana, however, specialist services remain a challenge, particularly in rural areas where specialist physicians are in short supply. Even though NHIS in theory permits beneficiaries to receive specialist services, geographical inequalities often limit actual accessibility. Past

studies indicate that specialist services are mainly concentrated in urban areas, rendering specialist services inaccessible to rural dwellers, who have fewer options and poor access to basic specialist services (Nsiah-Boateng & Aikins, 2018). This indicates that even though NHIS is committed to offering varied healthcare options, actual accessibility is unequal in different geographical locations.

The qualitative findings provide more evidence of adequacy and accessibility of specialist treatment and basic medications on NHIS. From a qualitative analysis of hospital staff, management, and NHIS staff interviewed, it was found that despite including a wide range of basic health services on the NHIS benefit package, gaps in specialist treatment continue to exist. The healthcare providers attested that the NHIS package is comprehensive enough to cater for primary healthcare, maternal health, and preventive services but short of key specialist treatment such as cancer treatment, mental health services, and selected diagnostic procedures. One hospital managers indicated that patients in need of advanced treatment opt for out-of-pocket payments or abstain from treatment, exacerbating healthcare disparities. The gap disproportionately affects patients afflicted with chronic disease and those in rural areas, who also have fewer healthcare options. The NHIS staff also opined that despite primary healthcare services becoming more accessible, specialist healthcare is underfinanced, constricting equal access to advanced treatment. The poor coverage for specialist treatment on the NHIS undermines the strength of the scheme in offering complete healthcare access, putting vulnerable groups at a disadvantage.

The study also found that supply of key medications on the NHIS is still irregular, particularly at health centers located in rural areas. Although there is regular supply of medications in urban areas, health providers in rural areas suffer shortages, compelling patients to purchase drugs out-of-pocket. Health workers emphasized that key medications such as blood pressure drugs and antibiotics are generally in stock, but there is a shortage of some life-saving drugs. NHIS

staff emphasized that stock-outs occur when payments to health providers are delayed, since hospitals refuse to restock expensive drugs without a guarantee of reimbursement. The shortages affects patients suffering from chronic diseases more, as irregular supply of prescribed medications aggravates their health condition. Further, health providers added that although NHIS and the Ministry of Health attempts to improve availability of medications, supply chain inefficiencies and budget constraints limit the capacity of pharmaceutical suppliers to provide uninterrupted supply of key medications. The observations indicates that there is the need to institute a more robust and sustainable system for supply of medications on the NHIS to facilitate healthcare accessibility and equality in Ghana.

5.3 To examine the quality of healthcare services received by NHIS beneficiaries across different regions in Ghana.

The study sought to determine the quality of healthcare services that NHIS patients receive across different regions of Ghana. Using the quality dimension framework, the study measured various aspects of provision of services such as tangibility, reliability, responsiveness, assurance, and empathy. Descriptive analysis in the study revealed that NHIS patients generally perceived the quality of healthcare services to be acceptable in these dimensions. Real-life situations, however, often portray inconsistencies in provision of services, particularly in resource-constrained areas, which impact the overall quality of services that patients receive under the NHIS.

One of the key aspects measured was tangibility, or healthcare service provider's physical environment, i.e., the condition of facilities, up-to-datedness and modernity of medical equipment, and professionalism of staff. The results indicate that NHIS-credentialed healthcare facilities are perceived to be generally well-maintained, and healthcare staff are professional-looking. This is in line with international healthcare quality standards, in which a clean, well-equipped environment maximizes patients' satisfaction and clinical outcomes (Donabedian,

2005). In reality, though, many of the NHIS-credentialed healthcare providers in rural areas suffer from infrastructure deficits, outdated medical equipment, and sporadic maintenance procedures (Alhassan et al., 2015). Urban beneficiaries enjoy better-equipped hospitals, whereas beneficiaries in more underdeveloped areas receive treatment in ill-maintained facilities, causing inequality in healthcare quality. The results suggest the need for improvement in the NHIS credentialing, post credentialing and clinical audit activities, and strategic investment in healthcare infrastructure to provide a uniform quality in all NHIS-credentialed facilities.

The reliability of healthcare services provided under NHIS was also a fundamental dimension that was investigated. The analysis confirmed that beneficiaries perceive NHIS healthcare providers to be highly reliable in making accurate diagnoses and offering services in a timely manner. Reliability in healthcare is crucial, in that consistency of services fosters patients' trust in services and increases treatment adherence (Fenny et al., 2014). In reality, however, most of the NHIS providers suffer from systemic inefficiencies such as delays in provision of services due to shortages of staff, supply chain failures, and bureaucratic delays. Literature has confirmed that NHIS patients suffer from long waiting times, more in government hospitals, where patients' loads exceed existing capabilities (Amporfu, 2013). As highly as patients trust healthcare providers' diagnostic capabilities, long waiting times to receive laboratory examinations, medications, and specialist services can negatively impact the overall service reliability. These challenges must be met by reforms in resource allocation to the NHIS and in organizational efficiency.

The study also determined responsiveness, or how quickly and effectively healthcare providers attend to patients' needs. Results show that healthcare providers are generally felt to be responsive by NHIS beneficiaries, with staff willing to assist and provide information. Responsiveness is a fundamental pillar of patient-centered care, as quick response enhances

treatment results and overall patient satisfaction (World Health Organization [WHO], 2018). Real-life observations, however, indicate varying responsiveness in various NHIS credentialed facilities. Overburdened hospitals and clinics, particularly in high-populated areas, fail to maintain short waiting times and personalized treatment. Some studies have confirmed that a few private NHIS-approved providers offer quick services, while government hospitals suffer from crowding, resulting in long consultation times and low staff interaction (Blanchet et al., 2012). The discrepancies indicates the need for a more even distribution of healthcare facilities and resources to improve responsiveness in all NHIS credentialed facilities.

Assurance, which is a reflection of patients' trust in healthcare providers' competency and courtesy, was also investigated in this analysis. The analysis found that beneficiaries of NHIS feel generally confident in healthcare providers' professional competency and courtesy, with providers demonstrating courteous attitudes and offering detailed explanation of medical conditions and treatment. Assurance is also a key to healthcare quality, as it is a determining factor in patients' trust in healthcare providers and compliance with medical advice (Parasuraman et al., 1988). However, there is inconsistency in services, such as in primary healthcare settings where patients report low provider-patient interaction due to high turnover of patients. Some studies report that specialist physicians take more time to explain issues to patients, yet in high-demand NHIS centers general practitioners give short consultation time, sacrificing patients' in-depth understanding (Alhassan et al., 2016). In order to establish stronger assurance, NHIS providers must put more emphasis on continuous professional development and improve patient engagement strategies.

Finally, the analysis considered empathy, or the level of concern and care that healthcare providers display towards NHIS beneficiaries. The findings suggest that healthcare providers on NHIS display concern for patients' welfare, such that healthcare workers take time to attend to patients and deliver personalized treatment. Empathy is a determining indicator of healthcare

quality, such that it enhances patients' emotional health and satisfaction (Hojat et al., 2011). Practical challenges such as high workload and understaffing, however, often limit healthcare workers in NHIS providers to deliver personalized treatment. Literature shows that in most of the public NHIS facilities, healthcare workers struggle to be efficient in their work without compromising on caring treatment given that they have a high number of patients to attend to per day (Dalinjong & Laar, 2012). This indicates that improving staff strength and reducing workload for providers would assist in improving the level of empathy and overall patients' experience in NHIS facilities.

5.4 To evaluate the satisfaction of NHIS beneficiaries with the healthcare services they receive.

The study sought to determine the satisfaction of NHIS beneficiaries towards healthcare services that they receive. Descriptive analysis revealed that a high percentage of beneficiaries were satisfied with the quality of services, responsiveness of healthcare providers, and supply of medications. Satisfaction towards healthcare services is a primary indicator of treatment adherence and health outcomes (Atinga et al., 2012). In actual experiences, however, there is a variation in levels of satisfaction based on geographical location, healthcare facility type, and efficiency of services. Compared to their counterparts in rural areas, patients in cities get better services in better hospitals, in addition to shorter waiting times (Alhassan et al., 2015). In rural areas, there is hospital overloading, inadequate staff to patient ratio, and inadequate supply of medications, hence low levels of satisfaction. The patients also concern themselves with the NHIS medicines list and occasional drug shortages in government hospitals, resulting in low trust in the scheme. The deficiencies in these areas can be addressed by improving resource allocation and policy reforms to boost overall equity and beneficiary satisfaction.

The study also confirmed that waiting time and accessibility to specialist treatment significantly influenced NHIS beneficiaries' satisfaction levels. While most of the beneficiaries

perceived waiting times to be acceptable, realistic situations point to overloading of public NHIS facilities as a challenge that requires redressal. Long waiting lists, bureaucratic procedures, and inefficiencies in referrals to patients are common in high-demand centers of NHIS, predominantly in public hospitals (Atinga et al., 2012). Despite efforts of NHIS to improve specialist treatment accessibility, many patients still struggle to obtain specialist appointments in a timely manner, predominantly in resource-constrained districts. The need to improve healthcare system efficiency, predominantly in the distribution of health workforce, streamlining the process of referrals and increasing NHIS coverage for specialist treatment, is signalled in these findings. The application of digital health records management and appointment systems would facilitate in overcoming the waiting time challenges and improve accessibility to services for NHIS beneficiaries.

5.5 To evaluate whether individuals with different sociodemographic statuses have equitable access to healthcare services under the NHIS in Ghana.

The study sought to determine if various sociodemographic groups enjoy equitable access to healthcare services in the NHIS in Ghana. The analysis of the Chi-Square test indicated that age and education played a crucial role in determining access to healthcare, while gender and employment status did not. In real-life experiences, older patients, particularly retirees, find it hard to receive healthcare services due to mobility challenges and waiting time in NHIS facilities even though they have a higher need for healthcare services. Education is also a determining factor in healthcare access, in that educated patients are more informed about NHIS services and better navigate the healthcare systems. This is in line with evidence that shows that healthcare use is conditioned by literacy levels such that low education hinders access to NHIS processes and specialist services (Alhassan et al., 2016). The evidence suggests that despite the NHIS's efforts at providing universal healthcare access, there is inherent

disparities occasioned by sociodemographic factors such as education and age, hence the need to intensify education on the benefit package and other services to facilitate equity.

5.6 To identify and analyze the key challenges faced in the implementation and operation of the NHIS, including financial sustainability and administrative efficiency.

The research sought to expose and analyze the key challenges in the process of implementing and managing the NHIS, such as financial sustainability and administrative efficacy. The findings highlighted some systemic challenges that affect the efficiency of the scheme and equality in accessing healthcare. One of the key challenges is the widespread misinformation and poor knowledge among beneficiaries, causing unrealistic expectations and discontent. Many of the NHIS beneficiaries believe that all healthcare services are absolutely free, as well as misconceptions about membership renewal duration often result in gaps in accessing care. The misinformation, as indicated in interviews, creates inefficiencies in delivering services and undermines trust in the scheme. The challenge can be solved through intensive education to inform beneficiaries of the benefits and limitations of the scheme, renewal processes, and related issues of co-payments. In addition, financial sustainability and reimbursement is a key challenge, given that the difference between NHIS reimbursement tariffs and actual prices of medical services and medications on the market places financial pressures on healthcare providers in the quest to address the demands of beneficiaries. The healthcare providers complained of receiving payments that do not match the actual price of services, hence, they are compelled to demand informal co-payments. The challenge not only undermines affordability of services covered on the NHIS but also increases health inequity in accessing healthcare (Gustafsson-Wright et al., 2017). An analysis of national health insurance programs in low-income and middle-income countries confirms that poor financial management and late payments often lead to compromised quality of services and providers' resistance to take up patients covered by insurance.

Another critical challenge is accessibility to healthcare services, particularly in rural areas, due to inadequate resources and health infrastructure, poor road network and NHIS credentialing constraints. The study found that specialist services pose challenges to equitable access to healthcare in rural areas, where beneficiaries travel long distances often at a high cost to receive these services in towns. The basic CHPS compounds in rural areas are ill-prepared and not in a position to handle complex cases. Some healthcare providers, despite having resources, cannot deliver certain services that are covered by NHIS, due to credentialing constraints regarding level of care. The challenges affect rural dwellers disproportionately, deepening healthcare inequity and reducing the overall effectiveness of the NHIS (Atinga et al., 2019). Inefficiencies in NHIA processes also aggravate challenges, including processing time in payments to providers, funding gaps, and high administrative costs that hinder services delivery. The findings of the study highlight that there is the need to simplify administrative processes and liberalize financial arrangements such as uncapping the NHIS fund to enable efficient and effective working of NHIS. The challenges must be rectified through improved financial planning, expansion of healthcare infrastructure, and improved administrative efficiency to create a stronger NHIS that promotes equity in healthcare access across Ghana.

5.7 Chapter Summary

This chapter has analysed the findings based on the study's objectives, highlighting key insights into the NHIS's effectiveness in promoting equitable healthcare access. The findings indicate that sociodemographic disparities exist, with rural and lower-income individuals facing greater access challenges. The analysis also revealed gaps in the adequacy and availability of NHIS-covered services, particularly in specialized care and essential medications. Beneficiary satisfaction varied, with concerns over long waiting times, coverage limitations, and unexpected out-of-pocket costs. Additionally, the chapter explored

implementation challenges, including inadequate healthcare infrastructure, unequal distribution of health workforce, funding gaps, delayed reimbursements, and administrative inefficiencies that negatively impact service delivery and access. Lastly, the study examined healthcare quality, showing regional disparities in service standards, with urban areas having better-equipped facilities than rural areas. The findings underscores the need for policy adjustments to improve NHIS funding, benefit coverage, administrative inefficiencies, and overall healthcare access to beneficiaries of the scheme. These insights contribute to understanding the NHIS's impact and aspects requiring urgent reforms.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter finalizes the study by concluding on the various findings that were uncovered by this current study. The chapter also makes recommendations to policy makers as well as the management of the NHIS based on the findings. Finally, the chapter reveals the limitations of the study and makes various recommendations to future researchers on the subject.

6.2 Conclusion of the Study

The study discovered that there is notable improvement in access to healthcare services adequacy and availability, particularly in primary healthcare and maternal health, owing to implementation of the NHIS. The study results indicated that in most cases, there is accessibility to basic healthcare services among the beneficiaries, with their usage prioritized in line with medical need. The study also established that NHIS enables beneficiaries to choose a range of healthcare services and obtain services from different healthcare providers, spanning all levels of healthcare and some specialist services when needed. In addition, essential medications included on NHIS are readily accessible in most healthcare facilities, thereby improving patients and treatment outcomes. The results also indicated that there is improved financial accessibility to healthcare services, reducing catastrophic financial burden to the beneficiaries of the scheme. The findings highlighted difference in healthcare services provided in different areas especially rural and urban locations, yet there is generally adequacy in healthcare services provided by the NHIS credentialed facilities which indicates marked improvement in healthcare accessibility and better health outcomes for beneficiaries.

The study discovered that beneficiaries of NHIS in general perceived healthcare services in terms of five key dimension such as tangibility, reliability, responsiveness, assurance, and

empathy as satisfactory nature. The credentialed healthcare facilities on the NHIS were in fair conditions of maintenance, and medical practitioners exhibited professionalism in their work to facilitate a smooth healthcare experience. The study also discovered that healthcare providers of NHIS services were perceived to be reliable, making accurate diagnoses and treatments in a timely manner, though there was variation in the provision of services between rural and urban providers due to resource limitations. The responsiveness was also a strength, in that beneficiaries indicated that healthcare providers handled patients' needs appropriately, enhancing overall patients' satisfaction. Further, beneficiaries also expressed that they trusted in the capability of NHIS providers, reinforcing their trust in the healthcare services. Empathy was also a positive attribute, noting that healthcare providers expressed concern for patients' welfare. Regional gaps in healthcare infrastructure and service provision by providers do prevail, though evidence suggests that the NHIS has generally improved the quality of healthcare delivery in Ghana.

The study discovered that beneficiaries of the NHIS in general highly rated healthcare services in terms of the quality of services, responsiveness of staff, and availability of medications. Satisfaction is a major driver of patient adherence and health outcomes, indicating overall improvement in healthcare delivery. Inequalities, however, persists across different areas, with better services delivered in urban areas, compared to crowding in rural areas, shortages of staff, and irregular supply of medications. Long waiting times and inaccessibility of specialist services also impacted overall beneficiary user experience. Inefficiencies and bureaucratic processes in referrals remained a challenge in public credentialed healthcare facilities. Addressing these systemic challenges with nationwide digitalization of health records and management would improve healthcare accessibility and equity.

The study discovered that healthcare accessibility on the NHIS was diverse in terms of sociodemographic variables, with age and educational status influencing accessibility. The

elderly suffers mobility constraints and waiting times, despite having a higher need for healthcare services. Beneficiaries with higher educational status were found to be more informed on the NHIS benefits, hence able to navigate the system better. Neither employment status nor gender was found to be a determining factor in access to healthcare yet discrepancies exists in reality. The results concluded that even though the NHIS is well oriented towards providing equitable health access, intensive education on the benefits package and limitations, and elderly-friendly services need to be introduced to enhance healthcare equity.

The study findings revealed challenges in the management and implementation of the NHIS regarding funding gaps and administrative inefficiencies. Lack of understanding of the NHIS benefits package creates unrealistic expectations that lead to inefficiencies in delivering services and dissatisfaction among beneficiaries. Low reimbursement tariffs results in financial constraints that compel healthcare providers to demand informal co-payment, reducing affordability and trust in the scheme. Inaccessibility to specialist's healthcare services in rural areas, caused by poor infrastructure and credentialing constraints on level of care, enhances healthcare inequity. Inefficiencies in NHIS administrative processes including delayed claims payments to providers and high administration costs also affects service delivery and access. Addressing these challenges through efficient administrative processes, improved funding and financial planning, and prompt payment of realistic tariffs by the NHIA, and equitable distribution of health workforce, as well as health infrastructure by the ministry of health would enhance equity in access healthcare services by beneficiaries of the scheme.

6.3 Recommendations of the Study

To enhance financial sustainability and efficiency of the NHIS, in promoting equity in access to healthcare, the following is recommended by the study. The first three recommendations are addressed to the NHIS management, while government and policymakers are addressed in the

fourth and fifth recommendations. The last is targeted at beneficiaries of the NHIS and the general public.

- **Strengthening Public Awareness and Communication**

The NHIS must carry out a more aggressive public education efforts to rectify misperceptions of the benefits of the scheme and extent of coverage. The majority of the beneficiaries incorrectly believe that NHIS provides free and unlimited access to healthcare services, causing discontent and inefficiency in services. The NHIA must carry out national educational programs via television, radio, social media, and community engagement programs to inform citizens and beneficiaries of benefit coverage, registration procedures for membership, and co-payment requirements. Joint efforts with community-based associations, churches, mosques, and local leadership could improve outreach, particularly in rural areas where misinformation is more likely to be prevalent. The NHIS must also prepare multilingual material of communication to cater for Ghana's multilingual nature, to promote accessibility by all beneficiaries and the general public. An easy-to-operate mobile application or SMS-based system could provide real-time reminders on policy updates, benefits package, and claims reimbursement to prevent confusion and provide transparency. By improving public knowledge and engagement, the NHIS can better manage expectations and gain trust among the beneficiaries, ultimately resulting in improved enrollments and utilization of services.

- **Enhancing Financial Sustainability and Timely Reimbursements of Claims**

The NHIA should pursue other financing options, such as public-private partnership, donor support, and increment in earmarked health taxes, to diversify revenue streams to boost financial sustainability. Without a secure financial system, the NHIS will continue to suffer from operational limitations that undermine service provision and accessibility. The research established that delayed payments to providers compel hospitals and clinics to levy extraneous

charges on patients on the NHIS, making it unaffordable and decreasing trust in the system. The NHIS should meet these challenges by updating the tariff review policies to account for prevailing prices of medical services and medications in the marketplace. Automatic adjustment of tariffs to account for inflation and economic circumstances that ensure providers get a fair reimbursement for services provided should also be introduced. A transparent system of claims processing that ensures timely payments to providers should be considered by the NHIS. Also, an online claims processing system linked to hospitals' computerized medical records could cut bureaucratic red tapes and boost efficiency. Thus, improving funding and expenditure arrangements, while assuring regular payments to providers as well as equilibrating reimbursement tariffs to actual healthcare cost would enhance financial sustainability, improve service provision, and accessibility by beneficiaries.

- **Expanding Healthcare Infrastructure and Accessibility in Underprivileged Areas**

The NHIS should also partner with healthcare providers and development partners to expand healthcare infrastructure and ensure equitable distribution of services in all areas. The study identified gaps in healthcare access, with rural beneficiaries struggling to get quality healthcare services due to inadequate health facilities, specialist services, and transportation challenges. The NHIS should incentivize private healthcare providers to open facilities in rural areas in the form of subsidies, tax relief, expedited credentialing and payment of claims. Mobile health centers and telemedicine programs should be considered on the scheme to bridge the gaps in healthcare access between rural and urban areas. The process of credentialing healthcare providers should be rationalised to bypass bureaucratic red tapes that prevents well-equipped private health providers from providing some NHIS-covered services on the basis of levels of care. Investment in Community-based Health Planning and Services (CHPS) compounds should be high on the agenda to ensure that they are properly positioned and adequately staffed to deliver basic healthcare services. Upgrading health infrastructure and services gaps in hard-

to-reach areas will bridge the geographical gaps and improve access to NHIS covered services for the attainment universal healthcare coverage.

- **Strengthening Policy Frameworks to Improve NHIS Governance and Oversight**

The management and policymakers must institute stronger governance mechanisms to improve NHIS transparency, accountability, and operational effectiveness. The study revealed that weak governmental regulations and bureaucratic inefficiencies results in financial mismanagement and poor delivery of services. There must be regular financial audits and performance reports to ascertain areas of inefficiency to ensure that the NHIS funds are used appropriately. The governance systems within the NHIS must be transformed to enable more inclusion of actors such as civil society, healthcare providers, and beneficiary groups. This will enable better decision making and ensure that there is a reflection of all stakeholders in policies formulations and implementation. The deployment of digitalization and data sharing with other government agencies such as the national identification authority and birth and death registry should be employed to enhance oversight and allow the scheme to monitor enrollment patterns, claims liabilities, and utilization of services in real time. Stronger governance structures and policies will enhance accountability, reduce possibilities of leakages, and raise the overall efficiency of the scheme.

- **Increasing Healthcare Funding and Workforce Capacity**

The government must increase funding to the health sector to address systemic challenges with inadequate health professionals, shortages of medicines and medical consumable, and inadequate infrastructure. The study found that majority of the NHIS facilities, particularly in rural areas, suffer from shortages of resources, compromising the quality of services and beneficiary satisfaction. The government must uncap the national health insurance funds to increase funding to the scheme and explore the possibility of other funding streams to improve

the scheme's liquidity. Also, incentivizing health professionals to work in rural areas in exchange for competitive salaries and career advancement could help to address shortages of health professionals. By increasing more funding and improving the capacity of health professionals, the government could strengthen the health system to deliver high-quality and accessible services to all beneficiaries of the scheme.

- **Encouraging NHIS Beneficiaries to be Proactive with their Health needs**

The NHIS beneficiaries must be proactive in understanding their needs and utilization of healthcare services in a responsible way. The study found that poor health literacy was a cause of inefficiencies in access to healthcare under the NHIS, given that many of the beneficiaries are not well informed of their rights, entitlements, and procedures for renewal of membership. In order to boost healthcare accessibility and satisfaction, citizens must be adequately informed about the NHIS benefits and limitations, issues of co-payments and credentialed healthcare providers. Providing feedback through channels of responsive customer services or open forums, could identify challenges and advocates for improvement in services by NHIS beneficiaries. Also, cultivating a culture of accountability and active patients' engagement will construct a more responsive healthcare system in which the beneficiaries become active players in improving services. Again, responsible utilization of NHIS services, such as averting unnecessary hospital attendance for minor ailments, can avert undue health system pressures and boost efficiency in service delivery. Lastly, an informed and active NHIS beneficiaries will be instrumental in improving sustainability and ensure equitable access to healthcare by providing feedback to the scheme on user experiences and provider behaviours to inform policy.

6.4 Limitations of the Study

- The study relied on self-reported data from NHIS beneficiaries, which may have introduced recall bias, as respondents might not accurately remember their healthcare experiences.
- The study did not assess the quality of NHIS services through independent clinical evaluations, limiting the ability to verify beneficiaries' perceptions with objective healthcare performance indicators.
- The research primarily focused on NHIS-credentialed healthcare facilities in two regions namely Volta and Greater Accra regions, excluding non-NHIS credentialed facilities that may offer alternative healthcare options.
- The study did not explore the long-term impact of NHIS enrollment on beneficiaries' health outcomes, making it difficult to assess the scheme's effectiveness over time.

6.5 Suggestions for Future Studies

- Future studies should incorporate medical records and healthcare performance data to complement self-reported beneficiary experiences and improve accuracy.
- Research should include independent assessments of NHIS service quality, such as clinical audits, to provide a more objective evaluation of healthcare delivery.
- Future studies should compare NHIS-credentialed providers with non-NHIS providers to assess differences in service quality, affordability, and patient satisfaction.
- Longitudinal studies should be conducted to evaluate the long-term health outcomes of NHIS beneficiaries and determine the scheme's overall impact on population health.

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APPENDIX: RESEARCH INSTRUMENTS

QUESTIONNAIRE

This questionnaire is designed to collect data on the research topic: **ASSESSING EQUITY IN ACCESS TO HEALTHCARE UNDER THE NATIONAL HEALTH INSURANCE SCHEME IN GHANA.** The data shall be used for academic purpose only and it will be treated with confidentiality it deserves. The respondents are highly encouraged to respond to the statements in this questionnaire in the most truthful and objected way possible. Your participation in facilitating this study will be highly appreciated. Kindly tick in the space provided with the correct answer or supply the required information where necessary.

SECTION A: DEMOGRAPHIC INFORMATION

1. Age

☐ 18-24 ☐ 25-34 ☐ 35-44 ☐ 45-54 ☐ 55-64 ☐ 65+

2. Gender

☐ Male

☐ Female

3. Level of Education

☐ No Formal Education ☐ Primary ☐ Secondary ☐ Tertiary ☐ Postgraduate

4. Employment Status

☐ Employed ☐ Self-employed ☐ Unemployed ☐ Retired ☐ Student

5. Marital Status

☐ Single ☐ Married ☐ Separated

6. Duration with NHIS

☐ Less than 1 year ☐ 1-3 years ☐ 4-6 years ☐ 7-10 years ☐ More than 10 years

7. Frequency of Healthcare Visits

☐ Once a month ☐ Every 2-3 months ☐ Every 6 months ☐ Annually ☐ Less than once a year

ASSESSING EQUITY ACCESS TO HEALTHCARE UNDER NHIS

Section B: Equity in Access to Healthcare under NHIS

Please indicate your level of agreement with the following statements on a scale of 1 (Strongly Disagree) to 5 (Strongly Agree).

Equity Dimensions	Statements (Items)	5	4	3	2	1
Equality of Utilization Based on Need	NHIS beneficiaries receive healthcare services according to their health needs.					
	Access to healthcare services under NHIS is prioritized based on the severity of health conditions.					
	NHIS ensures that beneficiaries with chronic conditions receive adequate care compared to those with minor ailments.					
Equality of Opportunity/Access	All NHIS beneficiaries have equal opportunities to access healthcare services.					
	NHIS-covered healthcare facilities are easily accessible to everyone, regardless of their location.					
	NHIS beneficiaries do not face barriers to accessing healthcare services due to financial constraints.					
Equality of Choice Sets	NHIS beneficiaries have equal access to a variety of healthcare providers and services.					
	I have the ability to choose between different healthcare facilities under NHIS.					
	NHIS offers beneficiaries the option to seek specialized care when necessary.					
Equality of Access among less advantaged	NHIS beneficiaries from both advantaged and disadvantaged social groups receive equal treatment.					
	There are no disparities in healthcare access under NHIS based on social or economic status.					
	NHIS ensures that people from less privileged backgrounds can access the same level of care as those from more privileged backgrounds.					
Equality of Outcomes	NHIS ensures that all beneficiaries, regardless of their background, achieve similar health outcomes.					
	The quality of care received under NHIS results in equitable health improvements across different social groups.					

	NHIS programs reduce health disparities between socially advantaged and disadvantaged groups.					

Section C: Quality of Healthcare Services under NHIS

Please rate your agreement with the following statements based on your experience with NHIS-covered facilities, using a scale of 1 (Strongly Disagree) to 5 (Strongly Agree).

Quality Dimensions	**Statements (Items)**	**5**	**4**	**3**	**2**	**1**
Tangibility	The NHIS-covered healthcare facilities are clean and well-maintained.					
	The medical equipment used is modern and up to standard.					
	The healthcare staff appear professional and presentable.					
Reliability	The healthcare services under NHIS are consistently reliable.					
	NHIS healthcare providers accurately diagnose my health conditions.					
	The healthcare staff deliver care in a timely manner.					
Responsiveness	The healthcare staff are quick to respond to my needs.					
	I am attended to quickly during my visits to NHIS facilities.					
	The staff are willing to answer my questions and provide assistance.					
Assurance	I feel confident in the abilities of healthcare staff at NHIS facilities.					
	The staff are courteous and respectful.					
	The healthcare providers explain my health condition and treatment clearly.					

Empathy	The healthcare providers show genuine concern for my well-being.					
	The staff take the time to listen to my concerns.					
	I receive personalized care at NHIS facilities.					

Section D: Satisfaction with Healthcare Services under NHIS

Please indicate how much you agree or disagree with the following statements on a scale of 1 (Strongly Disagree) to 5 (Strongly Agree).

Statements (Items)	5	4	3	2	1
I am satisfied with the quality of care I receive from NHIS-covered facilities.					
Healthcare staff at NHIS-covered facilities are responsive to my needs.					
Waiting times at NHIS facilities are reasonable.					
I am satisfied with the availability of medications under NHIS.					
The referral process within NHIS facilities is effective.					
I can easily access specialized care through the NHIS.					
I am generally satisfied with the healthcare services provided under NHIS.					

INTERVIEW GUIDE

The purpose of this interview is to obtain information on the equity in access to healthcare under the National Health Insurance Scheme (NHIS) in Ghana. The focus of this interview is to gather insights on the adequacy and availability of healthcare services, as well as the key challenges faced in the operation of the NHIS.

Your expertise and perspective are vital to this study. The information you provide will be confidential and used solely for research purposes.

The adequacy and availability of healthcare services covered by the NHIS

1. In your experience, how adequate is the range of healthcare services covered by the NHIS in terms of meeting the needs of beneficiaries? Could you provide specific examples of areas where services may be lacking?
2. How easily can NHIS beneficiaries access specialized healthcare services, such as surgeries or consultations with medical specialists, in your hospital or region?
3. In your opinion, how could NHIS policies or regulations be improved to better meet the healthcare needs of beneficiaries, particularly in terms of specialized care and medication availability?

The challenges faced in the implementation and operation of the NHIS

1. What are the most significant challenges you face in implementing the NHIS at your hospital or facility? Could you discuss both operational and financial aspects?
2. Are there any administrative inefficiencies within the NHIS that impact healthcare delivery, such as delays in claims processing or issues with patient reimbursements?

3. From your perspective, what are some practical changes that could be made to improve the financial sustainability and administrative efficiencies of the NHIS?

Equitable access to healthcare by different sociodemographic under the NHIS in Ghana.

1. In your experience, do you believe that individuals with different sociodemographic backgrounds (e.g., income, gender, education) have equal access to healthcare services through the NHIS? Why or why not?
2. What specific barriers do you think disadvantaged groups (such as low-income earners or those in remote areas) face in accessing NHIS services?
3. What measures have been taken at your hospital or facility to ensure equitable access to healthcare services for all NHIS beneficiaries, regardless of their sociodemographic status?

THANK YOU