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THE ROLE OF NHIS AND ITS EFFECTIVENESS IN ACHIEVING UNIVERSAL HEALTH COVERAGE AND ADEQUATE HEALTHCARE IN GHANA- A SYSTEMATIC LITERATURE REVIEW

FACULTY OF ECONOMICS
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RESUMO

Os seguros de saúde tornaram-se um instrumento muito importante no fornecimento de acesso e utilização de serviços de saúde na maioria dos países em desenvolvimento como o Gana. O Sistema Nacional de Saúde do seguro do Gana (NHIS) é um instrumento promissor para os decisores políticos. No entanto, desde a sua criação em 2003, poucos estudos avaliaram o seu impacto. O estudo investiga o papel do Sistema Nacional de Saúde do Seguro do Gana (NHIS) na utilização dos cuidados de saúde e a sua eficácia na obtenção de uma cobertura de saúde universal. Assim, o principal objectivo era avaliar o papel do NHIS no Gana e a sua eficácia no fornecimento de saúde adequada aos ganeses.

Este trabalho aborda o problema de 40% dos ganeses que não subscreveram o Sistema Nacional de Saúde de Seguro (NHIS) e cerca de 36% dos outros que alguma vez se registaram não renovaram os seus cartões após a expiração da sua filiação. A maioria dos ganeses afirma que o esquema não é eficaz, uma vez que os subscritores do NHIS estão autorizados a comprar alguns medicamentos prescritos e a pagar alguns testes laboratoriais. Assim, o papel do NHIS é-lhes invisível e não há necessidade de se inscreverem ou renovarem as suas subscrições no esquema. Com a introdução do NHIS em 2003, não é claro se todos os problemas inerentes ao anterior sistema "cash and carry" foram resolvidos. Ainda mais importante, parece não haver investigação disponível para avaliar o papel do NHIS e a sua eficácia no fornecimento de saúde adequada aos ganenses. O estudo foi analisado tematicamente, tal como "Investigação empírica analisou os cuidados de saúde e os sistemas de saúde", "Ministério da Saúde e a estrutura de saúde no Gana", "seguro de saúde, perspectiva global do seguro social de saúde", "evolução do seguro de saúde no Gana", "o Sistema Nacional de Seguro de Saúde" (NHIS) - "a estrutura do NHIS no Gana", "e o impacto do NHIS na utilização dos serviços de saúde no Gana".

A pesquisa on-line foi efectuada para a literatura publicada entre 2003-2022 sobre o NHIS e a sua sustentabilidade no Gana. O investigador empregou três bases de dados: Science Direct, Web of Science Core Collection, e PubMed. Esta abordagem de pesquisa sistemática foi baseada na PEO, que significa População, Exposição, e Resultado na sua totalidade. Mais de 34 milhões de referências a literatura biomédica do MEDLINE, revistas de ciências da vida, e livros em linha estão incluídos na PubMed, 6 artigos da colecção Web of Science Core, 924 artigos da base de dados Science Direct, e 21 artigos da PubMed estavam entre os resultados da base de dados. Estudos sobre o impacto catastrófico das despesas médicas fora do bolso (OOP) no Gana, as consequências do NHIS, e o papel da literacia em saúde como método para garantir a cobertura universal da saúde foram encontrados através da pesquisa. A revisão sistemática está centrada na questão de como os ganeses estão a ser bem tratados. Muitas fontes variadas e técnicas foram utilizadas para localizar literatura académica para explorar o assunto em investigação. 11 artigos elegíveis revistos por pares foram seleccionados para revisão final com base na relevância específica para o contexto ganês e os objectivos do estudo, utilizando critérios de inclusão e exclusão, bem como o fluxograma do PRISMA e analisados utilizando a análise temática. A partir da análise temática, foram identificados e categorizados temas que foram apresentados no âmbito dos objectivos específicos.

Os Resultados permitem caracterizar a proporção de ganenses actualmente inscritos e renovados no NHIS (a Cobertura Universal de Saúde), se os serviços do NHIS corresponderem às exigências dos ganenses (Adequado e eficaz), e aos desafios enfrentados pela implementação eficaz do Sistema Nacional de Seguro de Saúde (NHIS) no Gana.

As conclusões alcançadas levaram à apresentação das conclusões. Apercebeu-se de que os pagamentos fora do bolso têm um impacto catastrófico nos ganeses e que as famílias em situação de pobreza têm mais probabilidades de sofrer um desastre financeiro. O Gana estava pior do que a África do Sul, Tanzânia, Sri Lanka, Malásia, Indonésia e Tailândia quando comparado com outros países africanos e asiáticos, tendo o efeito catastrófico dos pagamentos Fora do Objectivo (utilizando 10% de despesas globais e 40% de despesas de limiares não-alimentares). O Gana, contudo, está a fazer melhor do que o Bangladesh, a China e o Nepal. Os custos mais elevados dos cuidados de saúde catastróficos estão relacionados com pagamentos fora-do-bolso significativos nas nações que têm custos catastróficos mais elevados. Os resultados demonstram que a desigualdade horizontal prevalece sobre a desigualdade vertical. Embora o prémio seja regressivo, isto não altera tanto o desequilíbrio horizontal como a redistribuição da capacidade de pagamento.

A investigação demonstrou que, após o ajustamento da capacidade de pagar, os prémios são mais elevados em Urbano do que em semiurbano e mais baixos para os membros que completaram o ensino superior do que para os que não o fizeram. O estudo revelou também que uma pequena percentagem dos pobres é susceptível de sofrer custos catastróficos devido ao pagamento de prémios. Os resultados mostraram que os níveis de literacia em saúde têm um papel significativo na determinação da forma como o acesso aos cuidados de saúde e aos seguros de saúde afectam. Os resultados implicam que mesmo as políticas de apoio à Cobertura Universal da Saúde são susceptíveis de ficar aquém dos objectivos em matéria de Qualidade de Vida relacionada com a Saúde, a face da baixa Literacia da Saúde. Assim, deve ser enfatizado que a Literacia da Saúde deve ser um plano primário para políticas destinadas a reduzir as desigualdades e disparidades na saúde, especialmente em outras nações emergentes e no Gana que são comparáveis.

O NHIS continua a desempenhar um papel crucial no sentido de alcançar uma cobertura universal da saúde no Gana, ao mesmo tempo que se vê confrontado com desafios que podem potencialmente fazer ruir o esquema.

Palavras-chave: Seguro de Saúde; Sistema de Saúde do Gana; Seguro de Saúde do Gana; Cobertura universal de saúde; Pagamentos fora do bolso, Prémios.

ABSTRACT

The general purpose of the study is to understand the role of National Health Insurance Service (NHIS) and its effectiveness in achieving Universal Health Coverage. To address the objective, the study adopted systematic literature approach and uses qualitative research approach in data collection and analysis. Only secondary data from related studies found in scientific journals, were used. In all, 11 related studies were included in the review, using inclusion and exclusion criteria as well as the PRISMA flowchart and analyzed thematically. Identified themes were categorized into major and minor themes and presented under the specific objectives.

The study revealed that Out-Of-Pocket payments have a catastrophic impact on Ghanaians and that households in poverty are more likely to experience financial disaster. The study also reveals that those living in the urban cities can pay higher premiums than their counterparts in the semi-urban areas. Also, workforce group with tertiary education certificates see the premiums paid to access the health care facilities very low. It was found that higher catastrophic health care costs relate to significant Out-of-Pocket payments in the nations that have higher catastrophic costs. We find that a small percentage of the poor are probable to suffer catastrophic costs because of the premium payments.

The results showed that levels of health literacy have a significant role in determining access to healthcare and health insurance. In all, Ghana is gradually doing better than other African countries.

Keywords: health insurance; Ghana healthcare system; universal health coverage; Out-of-Pocket; health literacy; Ghana insurance.

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ABBREVIATIONS LIST

SDG-3	Sustainable Development Goal-3
MDGs	Millennium Development Goals
NHIS	National Health Insurance Scheme
NHIA	National Health Insurance Authority
MHOs	Mutual Health Organizations
NHIC	National Health Insurance Council
CHIPS	Community-Based Health Planning and Services
GPRS	Ghana Poverty Reduction Strategy
WHO	World Health Organization
PPME	Policy Planning, Monitoring and Evaluation
UK	United Kingdom
MHO	Mutual Health Organization
DWMHIS	District-wide mutual health insurance scheme
STIs	Sexually Transmitted Infections
HIV/AIDS	Human Immune Virus/Acquired Immune Deficiency Syndrome
MOH	Ministry of Health
SSNIT	Social Security and National Insurance Trust
EJHIS	Ejisu-Juaben Health Insurance Scheme
OOP	Out-of-pocket
PEO	Population, Exposure and Outcome
PRISMA	Preferred Reporting Items for Systematic reviews and Meta-Analyses
HRQoL	Health-related quality of life
HL	Health literacy
CFA	Confirmatory factor analysis
UHC	Universal health coverage

CHAPTER ONE
INTRODUCTION

1.1 Study Background

To achieve Sustainable Development Goal-3 (SDG-3), which calls for eradicating poverty and reducing inequality worldwide, health systems continue to place a high priority on ensuring that everyone has access to high-quality healthcare (Blaboe, 2019). The World Health Organization (WHO) stated that, so as to allow universal health coverage, the establishment of social health insurance in its different forms has become the top priority on health funding globally (Anderson et al., 2012). Health insurance introduction is one possible way to pay for the poor's medical care worldwide. Even though affluent nations have easily attained the aim of universal healthcare, several middle- and low-income nations are making significant advancements. Mexico, Brazil, the Philippines, Thailand, Vietnam, Ghana, and Rwanda are just a few of these countries (Rodin and de Ferranti, 2012). There is an urgent need for universal health care in sub-Saharan Africa because the continent has the highest disease burden in the world (Lins et al., 2010). However, given the abundance of informal (non-taxed) firms, there are not enough resources to make this happen (Abel-Smith and Planning, 1994). Therefore, Sub-Saharan Africa's health insurance prospects could be both exciting and difficult. The first and second nations to implement a national health insurance program were Rwanda and Ghana, respectively. Various other Sub-Saharan African nations, such as Nigeria and Zimbabwe. The implementation of health insurance has made significant progress in Tanzania, Uganda, and Kenya as well. The insights gained from Rwanda and Ghana could help millions more people on the continent (Carapinha et al., 2011). The global health plan has enormous support for funding healthcare, and both wealthy and poor nations have found it difficult to provide healthcare. Managing for their citizens' healthcare requirements presents difficulties for these nations.

Some of these difficulties include Small fiscal support for services of health care, inadequacy in provision of public health, deplorable low public health services quality, and user charges' resultant demand are reflective of the country's incapability to meet the poor needs of health care (World Bank Report, 1993). In addition, the Millennium Development Goals (MDGs)' present emphasis on reducing poverty has led to a growing attention on health care finance systems' necessity that shield the people of these nations from health care expenses' possibly disastrous

effects. There is a shift in emphasis from reduction of poverty to management of social risk, even if this goal still occupies a major place in concern. According to Holzmann and Jorgensen (2000), such is the case with the increasing recognition of the part danger plays in the underprivileged lives. Health hazards might be considered as the greatest threat to poor households', or low-income earners' lives and livelihoods, among all the issues they face. Given the close ties between income and health at low levels of income, the poor are typically directly impacted by health shocks (Morrisson, 2002; Commission on Macroeconomics and Health, 2001). The knowledge that new systems are needed has rekindled interest in health care financing. Cost-recovery systems that required users of public sector facilities to make contributions, typically through user fees or direct out-of-pocket payments, were widely used in the public domain in the late 1990s (Akin et al., 1987). Prepayment health care financing, in which individuals routinely contribute to the cost of healthcare through health insurance contributions and tax payments, has recently gained support since it offers households greater protection of finance than health care out-of-pocket financing (World Health Organization, 2000; Preker and Carrin, 2004). Consequently, health insurance programs are regarded as the best means of paying medical treatment in middle- and low-income nations. The need for the creation of the NHIS was driven by the rising costs of healthcare services in addition to government health facilities' incapacity to meet public demand.

However, the government started breaking part of its financial commitment to the medical facilities in the 1970s, once the effects of low cocoa prices and the worldwide oil crisis started to have a noticeable influence on the economy. This made receiving medical care a nightmare, so it's understandable why a past head of state referred the hospitals as cemeteries. Under cash and carry, according to Kwegyir-Aggrey (1998), the patient at facilities of government was required to pay for all necessary items, including cotton wool, surgical gloves, X-rays, needles, syringes, scalpels, blades, and medications. This inadequate system served as a hurdle, preventing high-quality healthcare access, especially for the underprivileged, and restricting access in general. This condition deteriorated to the point where it became a hot topic during the 2000 presidential campaign in Ghana. The National Health Insurance Act of 2003, a universal health insurance policy, introduced and established Ghana's National Health Insurance Scheme (NHIS). The National Health Insurance Authority (NHIA) was also given the task of ensuring a national

health insurance program implementation that provides every citizen with fundamental medical care access. The Ghanaian government established the National Health Insurance Act 650 (HI Act) in August 2003 in response to MHOs' (Mutual Health Organizations) ability to do away with user fees and boost health care consumption. The National Health Insurance Council must be established, and the Health Insurance Act requires the construction of district-level MHOs in compliance with national standards (NHIC). The law is an effort by the government to offer health insurance to each and every one of its residents. This is supposed to ignore the "Cash and Carry" (Out-of-pocket) system and offer financial security to the entire populace. The NHIS was created to give comprehensive healthcare at a reasonable cost to self-employed individuals, informal and formal sector workers, and rural areas, in addition to the impoverished and vulnerable populations. People, notably Ghana's underprivileged elites, have financial difficulties due to the "Cash and Carry system," which partially finances the supply of public health care. Ghana's government established a health insurance scheme as a means of reducing poverty. Although there are still some Ghanaians who are not enrolled in the NHIS, a small number of private institutions still use the "cash and carry" system, and certain residents of rural Ghana have trouble accessing the NHIS. The Community-Based Health Planning and Services (CHIPS) facility and community health nursing training facilities have expanded and improved, nevertheless, with the advent of the NHIS in Ghana. This is to ensure that the program's goals, which include primarily offering high-quality healthcare that is both inexpensive and accessible, are met.

As a result, the National Health Insurance rules and the National Health Insurance Act 2003 were enacted into law by the Ghanaian government in 2004. In essence, this took the place of the user fees and improved access, especially for the underprivileged. The plan has not met its goal of providing universal health coverage, despite the expansion and enhancement of healthcare facilities and the availability of affordable, high-quality treatment. These issues include the large number of Ghanaians who have never signed up for the NHIS, have left the program, or have not renewed their subscriptions (Nsiah-Boateng et al., 2019). These difficulties can be brought on by NHIS failing to satisfy Ghanaians' needs. According to reports from a few studies, the cost of subscription and renewal, long lines at NHIS offices during registration, the distance to NHIS offices in rural communities, unfavorable attitudes of medical staff toward NHIS subscribers,

and the inability of the NHIS to pay for drugs and other medical conditions are all factors that affect NHIS enrollment, renewal, and dropout (Adamba, 2011). It is crucial to assess the National Health Insurance Scheme's function, effectiveness in achieving universal health coverage, and capacity to provide Ghanaians with adequate healthcare in light of its implementation. This study aims to assess the NHIS's contribution to reaching universal coverage as well as its efficiency in ensuring Ghanaians have access to adequate health care.

1.2 Problem Statement

As part of policy framework of major development, Ghana introduced the NHIS in 2004; Ghana Poverty Reduction Strategy (GPRS) fulfilled in 2003. NHIS idea in Ghana was to abolish the out-of-pocket system of health delivery where the health need of an individual was solely attended to after early service payment was made but rather, to create a fairer, more financial humane system that will allow the underprivileged to receive health care without paying at treatment moment. The system was created in part to guarantee that all residents' access to basic health care would increase, particularly the vulnerable and poor but is pathetic that some private and public facilities still demand money from patients prior to treatment. After years of crises under the out-of-pocket system, the NHIS introduction got a great acknowledgment particularly among the poor who now saw a system of social protection that supported for problems of their healthcare expenditure. Five years later, the scheme’s national Citizen’s Assessment revealed that above 40% of Ghanaians failed to subscribe to the scheme and about 36% others who failed to renew their cards after their membership expiry. These astonishing figures of the many Ghanaians are not being enrolled on NHIS makes the role unclear. Most Ghanaians claim the scheme is not effective as NHIS subscribers are allowed buy some prescription drugs and pay for some laboratory tests. Hence, the role of NHIS is invisible to them and there is no need for them to enroll or renew their subscriptions on the scheme. With the introduction of NHIS in 2003, it is unclear whether all the problems inherent in earlier “cash and carry” system have been resolved. Even more importantly, there seem to be no research available to evaluate the role of NHIS and its effectiveness in providing adequate health for Ghanaians.

1.3 Study Significance

Findings from this study would be of much assistance to NHIA in the numerous ways. It would help NHIS policy makers to get a clear picture of the proportion of Ghanaians who are enrolled on the scheme to enable them to evaluate their journey towards the universal health coverage in Ghana. Findings from this study will also enable NHIA to know exactly what Ghanaians demands from the scheme and determine the factors that impact an individual's intension to enroll on NHIS. Revealing these gaps will enable the NHIA to make significant changes to the scheme to enable it achieve the universal health coverage. In addition, the exact role of NHIS will be known and the extent to which NHIS has reduced poverty in rural communities in Ghana will be well understood. Finally, findings from this study will contribute to literature and serve as a reference material for other researchers for further studies.

1.4 Main Objective

The main objective of this study is to evaluate the role of national health Insurance scheme (NHIS) in Ghana and its effectiveness in providing adequate health for Ghanaians.

1.4.1 Specific Objective

1. To determine the catastrophic effect of out-of-pocket (OOP) healthcare payments in Ghana.
2. To determine the implications of NHIS in achieving universal health coverage.
3. To examine the health literacy for universal health coverage in Ghana.

1.5 Research questions

1. What is the catastrophic effect of out-of-pocket (OOP) healthcare payments in Ghana?
2. What are the implications of NHIS in achieving universal health coverage?
3. What is the health literacy for universal health coverage in Ghana?

1.6 Limitation and Scope of the Study

The study is limited to Ghana. The rationale is that it is the researcher's country of origin, and it will aid the researcher get faster issues clarification. The focus of this study will be National Health Directorate of the Scheme in Ghana with the primary focus on various regional health

Directorate of the Scheme. This will include the working populace in the various sectors of the Ghanaian economy, both formal and informal who are enrolled in the NHIS. The study period is 2013 to 2022 where the scheme faced many challenges with their service providers. Constraints of resource likewise compelled the researcher to conduct the study in Ghana.

1.7 Organization of Study

This study is categorized into six (6) chapters. Chapter one, which is the introduction, will comprise of the background of the study, the problem statement, the significance of the study, the aim and objectives of the study, the scope of the study and the organization of the study. Chapter two will cover the review of literature related to this study. Chapter three will discuss the methodology used in gathering data and analysis. The methods include study design, research method, profile of study area, data collection, search criteria, inclusion/exclusion criteria, screening and selection, and ethical consideration. Chapter four would include presenting and interpreting data. Chapter four presents the selection results, data extraction process and theme identification. The themes were **t**he catastrophic effect of out-of-pocket (OOP) healthcare payments in Ghana**, t**he implications of NHIS in achieving universal health coverage**, and h**ealth literacy for universal health coverage. Chapter five covered summary of results and the discussion of results based on themes. Chapter six presents the conclusion and recommendations of the study.

CHAPTER TWO
LITERATURE REVIEW

2.1 Healthcare and Healthcare Systems

2.1.1 Healthcare

The diagnosis, prevention, and treatment of illness, disease, injury, and other mental and physical disabilities are all part of healthcare (World Health Organization Report, 2000). Healthcare is provided by professionals in pharmacy, nursing, allied health, chiropractic, dentistry, and other fields (Hillege et al., 2005). Secondary care, primary care, public health, and tertiary care are all included in the term "healthcare" (Magnussen et al., 2004). Globally, people's general health and welfare are promoted in large part thanks to the healthcare system. The World Health Organization announced smallpox eradication in 1980 as the first illness in human history to be entirely eradicated by intentional medical interventions as an illustration of this (Tognotti, 2010). Primary healthcare is the most crucial component of healthcare. During a gathering of specialists and health ministers from all over the world in 1978, primary healthcare was proclaimed the benchmark for global health policy (Alhassan et al., 2016). Changes in socioeconomic position, financial allocation, the development of health systems, and a focus on essential healthcare services are all necessary for primary health care (Magnussen, 2004). Selective primary healthcare has been praised for making a significant contribution to improvements in world health, even though primary healthcare has encountered many difficulties. For instance, the five main childhood diseases are vaccinated against in around 80% of children worldwide nowadays (WHO, 2000). Global infant mortality decreased by 25% between 1980 and 1993, and the average life expectancy rose by over 4 to 65 years. Between 1985 and 1993, 1.3 million fewer kids under the age of 5 perished from diseases that may have been prevented by vaccination, although more than twelve millions of these kids nonetheless passed away during this time (Christmals & Aidam, 2020). Vaccine-preventable illnesses still caused 2,400,000 of these deaths. Additionally, malnutrition and childhood diarrhea continue to be major factors in poor child health in developing nations and are a major factor in the thirteen million under-five fatalities that occur each year (Magnussen, 2004). In actuality, healthcare is what determines how well people are.

2.1.2 Healthcare institutions

Healthcare systems are institutions created to address the needs of specific communities in terms of health. Their precise arrangement differs from nation to nation. Healthcare planning may be distributed among market participants in certain nations, but it may also be made more central among governments or other coordinated entities in others (Glied, 2008). The WHO states that in all circumstances, a functioning system of healthcare needs a strong financing mechanism, a workforce that is compensated and well-trained, trustworthy data on which to base policies and decisions, and well-maintained logistics and facilities to provide technologies and high-quality medical care (World Health Organization, 2000). The objectives of health systems are equitable financial participation, good health, and responsiveness to population expectations. How well systems perform four essential tasks—providing healthcare services, generating resources, finance, and stewardship—determines how far we go toward them (World Health Organization, 2000). Quality, efficiency, acceptability, and equity are additional criteria for evaluating healthcare systems.

Many emerging nations' health care systems developed from colonial medical practices that prioritized expensive, urban-based, curative care (Werner et al., 1997). These nations inherited health care systems when they gained independence in the 1950s and 1960s that were based on those in industrialized countries (Malu, 2010). During this time, international development organizations also worked to eradicate specific illnesses like malaria, yaws, and smallpox. Each program for the eradication of a disease ran independently, with its own administration, budget, and only a minimal amount of integration into the larger healthcare system (Ehiri et al., 1999). Some achievements occurred in this time (for instance, smallpox eradication and tuberculosis decrease). Though, the total disease load in poor communities was not being addressed by these short-term therapies (Smith et al., 1988). Analysts understood that even if one disease could be treated or eradicated, those who received the intervention might pass away from a different condition or its repercussions (Gadomski et al., 1990). Countries tried to establish comprehensive methods to the provision of basic health services after realizing that restricted aims weren't the only choice. Examples include the establishment of health center at the rural in India, operated by health and medical assistants and funded by the Bhore Commission; community-based health initiatives' rollout in Costa Rica, Nicaragua, Honduras, Guatemala,

Mexico, the Philippines, and Bangladesh; and the barefoot doctor initiative in China (Magnussen et al., 2004). These nations introduced a new issue to the world health discourse: dedication to social fairness in health services. This was done as part of the total endeavor to advance health of the population (Brugiavini & Pace, 2016).

2.2 Health Ministry and Ghana's Health structure

Ghana's government ministry in charge of the country's health is called the Ministry of Health (see Figure 2.1). It works on developing Ghana's hospitals and medical education system in addition to administering the country's healthcare sector. In Ghana, the ministry oversees all matters pertaining to health. It was in charge of providing or delivering direct public health services to the nation (Kipo-Sunyehzi et al., 2019). The Ghana Health Service and Teaching hospitals have been given the responsibility for promotion, preventative, curative, and rehabilitative treatment, thanks to the passage of ACT 525 of the parliament. Therefore, the ministry's primary responsibilities are now limited to the development of policies, their monitoring and evaluation, the mobilization of resources, and the control of the country's health service delivery (Ameyaw et al., 2021). Teaching Hospitals, Statutory Bodies, and the Ghana Health Service all get support in various ways from the Health Ministry. Health Ministry has functional divisions for finance and policy planning, monitoring, and evaluation (PPME) (see Figure 2.1). The various units within PPME are Budget and Planning, the Private Sector Units, Evaluation and Monitoring, and Health Research. The primary responsibilities of the Private Sector Unit are to facilitate national policy dialogue and coordinate private sector initiatives (Amporfu et al., 2022). As a result, the Statutory Bodies, the Ghana Health Service, and the Private Sector Unit of the Health Ministry all have relationships with the private health sector. Health Ministry and Ghana Health Services are responsible primarily for overseeing the government's provision of the majority of the country of Ghana's healthcare (Akweongo et al., 2021). Health clinics and centres, health posts, tertiary hospitals, regional hospitals, and district hospitals are healthcare providers' five levels in the system. For rural communities, health posts serve as primary care's first line.

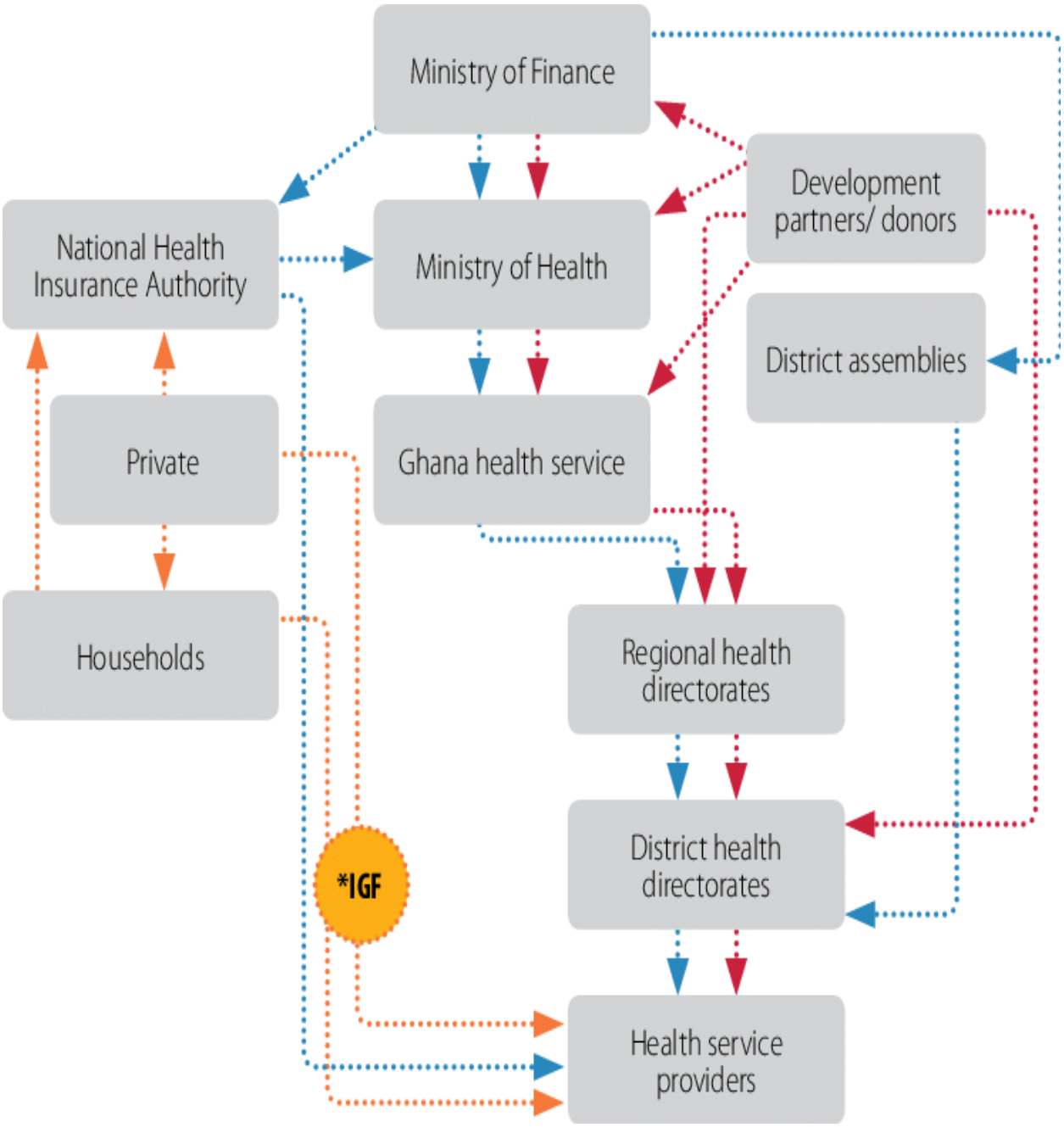

Figure 2.1

Source: Ghana Health System

2.3 Health Insurance

Health treatments are expensive, and patients must pay, but health funding is essential to obtaining universal health care worldwide (Evans and Etienne, 2010). Even while foreign assistance for health in low-income countries has recently increased, these nations still need to find over 75% of their funding of health from domestic sources. It is crucial how nations raise those finances. Many people are discouraged from obtaining care in the first place by mandated direct payments, such as user fees, which can lead to financial issues (Bennett and Gilson, 2001). Healthcare funding, according to the US National Library of Medicine, includes means of obtaining and income sources in health services. Public grants, third-party payers, government contracts, managed care contracts, direct government or public payment for service, charitable payments and grants for loans, service, self-pay, and bonds are some of the ways that healthcare is financed (Kotoh et al., 2018). The goals of healthcare financing are to increase funding for the healthcare system, create appropriate financial incentives for healthcare professionals, and guarantee that everyone has access to quality healthcare (World Health Organization, 2000). The ways in which financial resources are mobilized and put to use make up the systems of financing healthcare. It has several facets as it connects to various elements, such as the strategy used to mobilize resources of finance, the organizational and institutional structure of delivery, resource allocation, and the way in which health personnel are compensated and motivated (Drouin, 2007). General revenue, out-of-pocket spending, and health insurance are the main methods for funding a healthcare system. The method used to pay for healthcare has an impact on how effectively the healthcare system develops and delivers healthcare services (Williams et al., 2017). The decision of how to gather funds cannot be separated from the operation of the economy and the social service sector in that they have effects for the general efficiency and equity of society generally. Secondly, it has redistributive ramifications within the health sector (Glied, 2008). Drouin (2007) added that the degree to which it is appropriate to permit the influence of social partners, the government, and other interest groups to play a function in the installation and ongoing operations of the health national system may be a deciding factor in the way of financing healthcare.

Demand for healthcare is unknown due to the unpredictable nature of sickness and everyone's future health state. The establishment of insurance arrangements, in which insured parties make

recurring payments to a risk pooling organization in exchange for assurances of some kind of reimbursement in disease event, is the institutional answer to this uncertainty (Williams et al., 2017). The benefits could include indemnities (set cash payments) fluctuating across sickness episodes, reimbursement of all or part of real healthcare expenditures, or direct provision (private or public) of services as required. This agency could be a governmental entity or a private company (Evans, 1984). Therefore, health insurance is defined as protection against the possibility of persons accumulating medical debt (Claxton, undated). According to (Amartey-Vondee 2007), health insurance is a technique of funding or paying for the cost of healthcare that involves distributing the risk of needing medical expenses among many individuals. The risk is decreased as the number of participants increase. The benefit of health insurance is that it allows people to obtain healthcare regardless of their capacity to pay out of pocket during a medical emergency (Amartey-Vondee, 2007).

2.3.1 Types of Health Insurance

The cost of health insurance varies by bundle. Social health insurance, communal health insurance, and private health insurance are the different types of health insurance. Social health insurance refers to insurance plans in which the government and an individual subscriber each contribute a portion of the payment (Novignon et al., 2021). The person also has a right to receive certain benefits. This type of health insurance is founded on the idea of solidarity, according to which every member of society makes a financial contribution to the good health of the entire society (Boadu, 2008). A social health insurance plan is one whose base for contribution is the payroll, according to Drouin (2007). A portion of the contributor's payroll income is contributed to a fund, and another portion is provided by the company or even the government. It is a not-for-profit organization, and contributions are based on financial need for health services (Drouin, 2007). A program of insurance is deemed a social insurance program by the United Nations System of National Accounts (1993) if at least one of the following three requirements is satisfied:

i. Compulsory program participation is mandated by the law or employment.
ii. The program is confined to group members and run-on behalf of the group.
iii. On behalf of a worker, an employer makes a donation to the program.

The creation of consistent resources, the population's frequently strong support, the provision of a comprehensive services package, social partners' involvement, and the redistribution between income and risk categories are all necessary for social health insurance plans to succeed (Dalinjong et al., 2017). Administrative plans are complicated, and issues with accountability and governance might arise. Additionally, social health insurance may affect fairness in nations with significant informal sectors if coverage is not universal (Glied, 2008).

Plans for mutual health insurance are another type of non-profit health insurance. The programs are strongly centered on and owned by the community. Community-rated contributions are made to the program, and the pool of participants shares the risk (Drouin, 2007). Another health insurance type is private health insurance. It may be run by employers or other purchasing organizations, although this is uncommon outside of highly controlled circumstances. The cost of insurance is correlated with anticipated health expenses, with older, sicker persons paying more for premiums and coverage rising as health expenses rise, with the exception of highly controlled environments like employer-sponsored groups (Dake, 2018). People who opt for private insurance can decide how much they want to spend, and consequently, how much of their income they want to spend on it. Almost all observed private health insurance contracts are only for a brief period of time (usually only one year). Because of this, pre-funding care is challenging, unless through savings mechanisms outside the health system (Glied, 2008).

2.4 Ghanaians Perspective of Social Health Insurance

If Ghanaians strictly go by the (World Health Organization 2000) definition of health, which includes total physical, social, and mental health and not only infirmity or disease absence, then no citizen of Ghana can be deemed to be a well-user of the insurance business. Every nation makes an effort to offer its residents access to cheap healthcare (Pedrazzoli et al., 2021). For instance, there is no publicly funded health insurance program in the South African Republic. However, they may boast of having healthier health indicators than Ghana. As said by Ghana Health Service Report (2010), they have private health insurance programs that are reasonably priced, well-built, and operating successfully and effectively. Importantly, certain significant developed countries' healthcare systems can help us become better educated. The National Health Scheme (NHS), an openly funded system of healthcare for every UK citizen, is present in

the United Kingdom (UK) (Ayanore et al., 2019). There are no premiums collected, no patient-level charges, and no group payments are made to cover expenditures. Although it isn't a true insurance system, it does meet insurance's primary objective, which is to distribute financial risk brought on by illness away from general taxes (Van Der Wielen et al., 2018). On the other hand, the majority of Americans' primary source of coverage—private health insurance—is heavily incorporated into the American healthcare system. There are private and public health insurance programs in Canada; the majority of these programs are managed at the provincial level in accordance with the Canadian Health Act, which mandates universal access to healthcare for everyone (Frimpong et al., 2021). According to Ghana Health Service Report (2010), the majority of Canadians who have supplemental private health insurance, or about 65% of the population, receive it via their jobs. France has a system of solidarity. Private and public initiatives are present. The strange thing about the French system is that when a person gets sicker, they pay less. This indicates that the insurance system covers all costs for patients with serious or chronic illnesses and waives co-payments (Alhassan et al., 2016). Additionally, private health insurance is offered (Ghana Health Service Report, 2010). In Australia, there are both private and operational public health insurance programs.

The public health system (Medicare) guarantees free, worldwide access to in-hospital care as well as discounted outpatient medical services. Medicare is financed by a 1% tax on all taxpayers, an additional 1% tax on high incomes, and general government revenue. While certain non-profit health insurance organizations are also in business, some private health insurers are for profit. A health insurance program in Germany called the sickness fund is funded by both employees and employers and is run by non-profit firms (Christmals & Aidam, 2020). It is distinguished by a private provider base, sufficient investment, excellent management, and successful buyer and provider behavior control. There are both private and public health care systems in Chile, but as in the majority of Latin American nations, patients are switching to private from public systems (Korte 1992). Despite the creation of the NHIS, the Ghanaian system accepts private healthcare providers as significant contributors. The NHIS's coverage is so extensive that it includes the unemployed, street vendors, farmers, sole proprietors of businesses, artisans, and farmers for a nominal fee (Brugiavini & Pace, 2016). Not all government and corporate personnel are covered by the program, even within the official sector.

Therefore, the majority of our private and public hospitals are still run on a fee-for-service model (Ghana Health Service Report 2010).

2.5 Evolution of Health Insurance in Ghana

A small privileged colonial group and their servants received most of the benefits from the colonial healthcare system (Arhin-Tenkorang, 2001). With direct payment at the use point, this has impacted other healthcare providers and hospitals, particularly in metropolitan areas. The rest of the populace relied on conventional doctors or other missionary hospitals for their healthcare. The acceptance of free services in education, health, and other social services was, nevertheless, a result of post-independence nationalism (Kipo-Sunyehzi et al., 2019). General tax funds and contributions from outside donors were used to pay for healthcare. User fees were taken into consideration, and attention was given to building a variety of primary healthcare facilities across the nation. Nevertheless, the cost of managing a free open system in a high recurring cost industry like health is prohibitive, and creating healthcare infrastructure is expensive (Kori, 2004). As a result, by the early 1970s, a tax-based system for financing health care was unsustainable due to the stagnant economy's general tax revenue. Additionally, the economic basis of cocoa's low price and the worldwide oil crisis started to have a significant impact on the economy. As a result of frequent shortages of necessary medications and supplies, the standard of care also declined (Ameyaw et al., 2021). Thus, significant reforms to the health sector were started in 1985 as part of a larger adjustment structural program with the primary goals of decreasing spending of government, addressing deficits of budget, and implementing mechanisms of cost recovery through user fees (commonly referred to as "cash and carry"). In order to welcome private sector participation, the health industry was likewise liberalized (Amporfu et al., 2022). Even if the reforms' financial goals were met and there were fewer shortages of crucial medications and supplies, according to Waddington and Enyimayew (1990), these accomplishments were nonetheless accompanied by discrepancies in the financial access to fundamental and crucial therapeutic treatments.

The inadequate system nature, which serves as an obstacle to healthcare facilities usage, restricting access in general and excluding the poor, was recognized by successive governments. There is scientific and anecdotal proof that more and more patients tried to tackle this financial

issue by leaving the wards before they were scheduled for discharge without paying their costs (Akweongo et al., 2021). For ambulatory patients, the exorbitant costs of medications and healthcare services led some to seek out alternate sources of treatment, forego treatment altogether, or purchase their meds in smaller quantities. With some outside financial and technical support, Ghana launched a number of community health insurance programs known as Mutual Health Organization (M.H.O.) to help counteract this. Healthcare availability and affordability emerged as a crucial topic in the 2000 presidential election (Kotoh et al., 2018). The National Health Insurance Act 650 and the necessary legislative document, "The National Health Insurance Regulation-2004," were therefore passed into law by the administration upon taking office, fulfilling its political promises. The act, which took the place of the user fees, is especially focused on improving access to healthcare. The National Health Insurance Scheme, launched in 2005, intends to offer universal coverage to every Ghana resident, irrespective of their payment ability, in contrast to the user fees system (Sulzbach, Garshong and Owusu-Banahene, 2005).

2.5.1 The National Health Insurance Scheme (NHIS) - Ghana

The NHIS was created by a Parliamentary Act (Act 650, 2003), and it started operating fully in 2005. The only factor determining access to healthcare in Ghana prior to the NHIS implementation was financial means. The out-of-pocket system was also called the fee-for-service model. The NHIS aims to achieve equitable access to healthcare that is both affordable and accessible based on need rather than socioeconomic position (Witter et al., 2009). The program makes it possible for citizens of the nation to receive essential healthcare treatments at the moment of delivery without having to pay up front. According to the plan, premium payers are entitled to a minimum package benefit that includes maternity care, emergency care, dental health services, inpatient services, and outpatient services. Generally speaking, the program covers roughly 95% of Ghana's prevalent health issues (Mensah et al., 2010). People under the age of 18, people over the age of 65, and indigenous people are excused from paying premiums under the National Health Insurance Act (2003, Act 650). The NHIS Act established two primary categories of programs that might be registered and run in the nation:

i. The District-wide Mutual Health Insurance Scheme (DWMHIS);
ii. Individual health insurance plans, which may be mutual or commercial.

The DWMHIS is the most practical of these two, and it enjoys the highest level of customer support. The DWMHIS primarily provides care for disadvantaged members of society and workers in the informal sector, in contrast to private health insurance schemes. As a means of creating a prosperous and stable society, it seeks to instil a spirit of cooperation, equity, social responsibility, and a sense of belonging (Williams et al., 2017). The provision of high-quality healthcare that satisfies policyholder expectations is another priority highlighted by the NHIS. For instance, the National Health Insurance Council is required by Section 68 of the law establishing the program to take action to ensure that healthcare providers implement programs that secure quality assurance, technology assessment, and utilisation review so that:

- ✓ Healthcare services' quality provided at accredited institutions is of good reasonable quality to users.
- ✓ Basic healthcare services are routinely provided.
- ✓ The application of medical apparatus and technology is in line with clinical standards and actual patient need.
- ✓ Drug administration and medical procedures are appropriate, required, and in accordance with moral and ethical standards of medicine.
- ✓ The Ministry of Health's Essential Drug List (EDL) includes drugs and pharmaceuticals used in the delivery of healthcare.

2.5.2 Structure of the NHIS in Ghana.

The organizational structure acts as a monitor, whose major objective is to make sure that citizens receive high-quality healthcare services in an effective and efficient manner (Novignon et al., 2021). The National Health Insurance Authority's governing body, the Board, is what makes up the NHIS. The Chief Executive Officer and the Chairman of the Authority are two of the Board's seventeen current members. According to Section 3 of the National Health Insurance Act 2003, Act 650, members of the Board are chosen from a variety of organizations (Dalinjong et al., 2017). The Board Chair is chosen by the President of Ghana. The Board members represent the Ministry of Health, National Insurance Commission, Ghana Health Service, Attorney General's Department, Ministry of Finance, Medical & Dental Council, Social Security & National Insurance Trust, Organized Labor, Accountancy Profession, Pharmacy Council, two

Health Professionals with expertise in health insurance, Legal Profession, Chief Executive of the Authority and two Members of National Health Insurance Scheme.

2.5.3 The National Health Insurance Authority (NHIA)-Governance and Management

The NHIA is required by law to ensure NHIA implementation. The Authority is in charge of the nation's health insurance programs' registration, licensing, and regulation. Additionally, it accredits healthcare professionals and keeps track of their performance to ensure that they give effective, high-quality services (Dake, 2018). It is in charge of overseeing the National Health Insurance Fund and creating systems to make sure that those in need of assistance are properly taken care of by the NHIS. The Authority is governed by a Board, which is made up of the Chief Executive, the Chairperson, and other members from various stakeholder groups. The Authority's duties must be carried out properly and effectively, and the Board is in charge of doing so. Ghana's President appoints it (Pedrazzoli et al., 2021). The Chief Executive of the Scheme is in charge of the Executive Management, which is supported by three Deputy Chief Executives. Deputy Directors and technical directors of several directorates and divisions are additional members. The NHIS is decentralized to the district and regional levels in order to provide accountability to stakeholders. The annex contains the complete lists of other Managers, comprising NHIS Regional Managers and Unit Heads.

2.5.4 NHIS Enrollment and Renewals (Membership Management)

In 2013, there were 10,145,196 active members overall, up from 8,885,757 in 2012. 38% of the population was actively enrolled in the Scheme as of the end of 2013 (NHIS Report, 2013). The region with the most active members was Ashanti, followed by Brong Ahafo and Greater Accra (see Table 2.1). In terms of the total active members' number, the Upper West region had the lowest registration rates. Ghana Police, Security Services, and Military were three new membership categories that were added to the NHIS membership category. The informal sector and children under the age of 18 made up the majority of NHIS members who were actively participating (Ayanore et al., 2019). The lowest percentage was made up by the police, military, and security services (see Figure 2.2). The NHIS's active participation demonstrates that the Scheme's viability is in jeopardy. The NHIS is another pro-poor initiative the Ghanaian government has put in place to ease the financial barriers Ghanaians face while seeking medical

treatment (Van Der Wielen et al., 2018). Therefore, it is crucial to raise service quality in institutions of healthcare to promote enrollment and utilization, particularly among the underprivileged.

Table 1 NHIS Active membership

Region	New	Renewals	Active Membership	Percent of Total
Ashanti	472,903	1,242,485	1,715,388	17%
Brong Ahafo	405,088	948,752	1,353,840	13%
Central	382,595	484,341	866,936	9%
Eastern	337,097	773,024	1,110,121	11%
Greater Accra	565,281	714,976	1,280,257	13%
Northern	391,728	488,789	880,517	9%
Upper East	166,538	476,740	643,278	6%
Upper West	99,620	322,797	422,417	4%
Volta	326,243	584,326	910,569	9%
Western	297,477	664,396	961,873	9%
Total (National)	**3,444,570**	**6,700,626**	**10,145,196**	

Source: (NHIS, 2013)

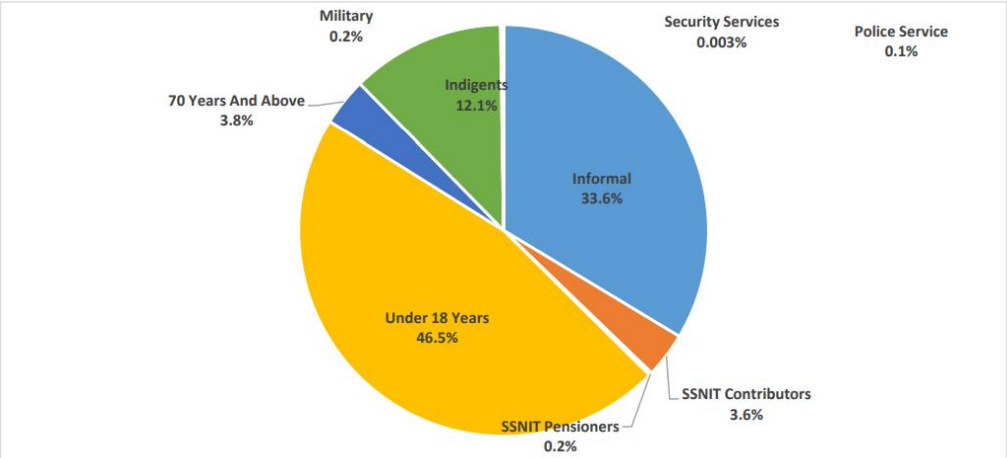

Figure 2.2 NHIS Subscribes by category

Source: NHIS Subscribes by category as at December 2013 (NHIS, 2013)

2.6 Benefits of NHIS in Ghana

The NHIS provides coverage for more than 95% of the diseases that affect us. The program's advantages include:

2.6.1 Outpatient services.

Reviews and consultations together: The following conditions are among those managed in an outpatient setting: Respiratory acute tract infection, malaria, diarrheal illness, skin conditions and hypertension, ulcers, rheumatism, acute eye infection, acute ear infection, anemia, disorders of intestinal worms, dental caries, typhoid fever, STIs, diabetes mellitus, other conditions, and asthma are among them (specialist and general) investigations for specialty and general out-patient services, including ultrasound scans, x-rays, and laboratory investigations (Frimpong et al., 2021). Opportunistic infections treatment caused by symptoms of HIV/AIDS. Surgical procedures performed on an outpatient or day basis, for example hernia repairs, abscess drainage and incision, lump excision, and hemorrhoidectomy (Alhassan et al., 2016). Physiotherapy for outpatients. Medication, namely, traditional medicines prescribed by licensed traditional medicine and medical practitioners and approved by the Food and Drug Board. These medications are included on the National Health Insurance Scheme Medicines List. Any additional services that the Minister of Health has approved.

2.6.2 Inpatient services

diagnosis and treatment of cervical and breast cancer, as well as consequences from other malignancies including anemia or blockage, general and specialty inpatient care, investigations comprising ultrasound scans, x-rays, and laboratory investigations for inpatient care, Surgical procedures, such as an appendectomy (removal of the appendix) (Christmals & Aidam, 2020). Physical treatment on-site, lodging in a general ward, and feeding (where available). Medication, specifically traditional medicines prescribed by licensed traditional medicine and medical practitioners and approved by the Food and Drug Board. These prescription medications are listed on the National Health Insurance Scheme medicines list (Brugiavini & Pace, 2016). Blood and blood product processing.

2.6.3 Oral Health

Temporary alleviation, tooth extraction, incision and drainage, and other methods of pain management. basic amalgam fillings, temporary dressings, and dental repair. Refraction, visual fields, scans, cataract surgery, and other services related to eye care.

2.6.4 Maternity care

Prenatal care, regular and assisted deliveries, cesarean sections, and postpartum care.

2.6.5 Emergencies

Every emergency is covered. surgical and medical emergencies, comprising heart surgery or brain surgery because of pediatric emergencies, accidents, gynecological and obstetric emergencies, comprising road traffic accidents, caesarean sections, workplace accidents, and industrial accidents are among the crisis health situations that call for urgent intervention (Kipo-Sunyehzi et al., 2019). All of these ailments together make up just 5% of the total number of illnesses that Ghanaian residents experienced.

2.6.6 Exclusions of NHIS in Ghana.

The NHIS does not provide coverage for the following medical services: Rehabilitation other than physiotherapy (Ameyaw et al., 2021).

- ✓ Appliances and prosthetics, such as dentures, hearing aids, orthopedic devices, and optical aids.
- ✓ Cosmetic procedures and aesthetic care.
- ✓ Antiretroviral drugs for HIV.
- ✓ Assisted reproductive techniques including gynecological hormone replacement treatment and artificial insemination.
- ✓ An echocardiogram (a painless examination that employs sound waves to produce moving photographs of the heart to reveal details about its size, shape, and level of function).
- ✓ Photography (pictures taken in hospitals and clinics to provide visual recordings of patients' conditions and procedures to follow treatment progress for the patient's medical files).
- ✓ Angiography (a procedure where a dye is injected into the blood vessels and the vessel photograph is taken).
- ✓ Optometrist (treatment and diagnosis of defective eye coordination and movements).
- ✓ For chronic renal failure, there is dialysis.
- ✓ Brain and heart surgeries that aren't related to accidents.
- ✓ Treatment for cancers besides breast and cervical cancer.
- ✓ Transplanting organs.
- ✓ Drugs that are not listed on the NHIS Drugs list.
- ✓ Foreign treatment and diagnosis.
- ✓ Medical tests required for job, visa applications, school admissions, driver's license applications, etc.
- ✓ Mortuary services, VIP ward, and lodging.

2.6.7 Challenges of Service Delivery

The plan has faced numerous obstacles since its start. These include the ongoing administrative bottlenecks at the NHIS and Ministry of Health (MoH) levels in Ghana, which have caused many prospective participants to wait several months before enrolling (Amporfu et al., 2022). Although the severity of these bottlenecks may have decreased since the start of the project, they still exist. Another issue that has led to lost funds that might have been used to maintain and

build the facilities of is the MOH's delay in paying healthcare providers. Additionally, subscribers have been forced to gravitate toward the few equipped healthcare institutions due to a lack of or outdated equipment at the others (Akweongo et al., 2021). The government must step up its anti-corruption campaign because the healthcare system is not immune to the systemic corruption in the nation, which leads to overcrowding and lengthy wait times. In addition, there are multiple levels of poor resource management in the healthcare system (such as fund misappropriation and other corrupt practices) (Kotoh et al., 2018). Resources will be made available for facility-level equipment procurement if healthcare budgets are improved across the board and resources are managed effectively. In many clinics, the referral process is subpar, which has led to needless delays in receiving medical care. Currently, few healthcare institutions are digitized. This has been pointed to as the reason for avoidable delays at the sites for registration, payment, and collecting laboratory results (Williams et al., 2017). Additionally, there is a lack of public awareness of the program, and many enrollees are not well-informed about their benefit package. Last but not least, the extent and coverage of the threat protection afforded under the NHIS are quite constrained. The program does not cover a number of crucial and formerly expensive healthcare procedures, but it does pay for a number of widespread illnesses that are simple to treat and relatively inexpensive (Novignon et al., 2021).

Only about 3 percent of the NHIS's budget is covered by the premium. The scheme is funded principally by two levies; one by value-added tax component (VAT; providing some 73% of funds), and the other by contributions to the Social Security and National Insurance Trust (SSNIT; some 20%). Additionally, it receives funding via tiny processing fees (which has exclusion of some members) and from sporadic, irregular sources (Dalinjong et al., 2017). It is not surprising that the NHIS has reported rising and persistent annual deficits since 2009 given that the scheme disburses funds unduly to those who non-contributors either indirectly or directly—69 percent of its members do not pay premiums due to exemptions of the scheme, and many pay little to no tax given Ghana's significant informal sector economy (Dake, 2018). About one third of the scheme's participants are informal workers, who frequently pay little or nothing to the government (although numerous will as a minimum pay a premium to the NHIS); pregnant Ghanaians are likewise exempted from the premium. Children make up about half of the scheme's membership, but neither they nor their parents contribute to the public coffers. Since

the economy is currently slowing down, efforts to boost membership may only make the situation worse because the levies supporting the fund will likewise only rise slowly (Pedrazzoli et al., 2021). As a result, the plan is already severely under stress.

2.7 NHIS Impact on Health services Utilization in Ghana

Health services are often used more frequently due to health insurance establishment (Sulzbach, 2008). The experience in nations that eliminated user fees has shown that there were huge and quick increases in usage, particularly for the poor (Ayanore et al., 2019). For instance, detailed research was undertaken in Uganda utilizing information from the second and first National Ugandan Household Surveys, which were conducted in 2002–2003 and 1999–2000, respectively. Systems showed that the abolition of fees had been especially beneficial to the poor (Deininger and Mpuga 2004). For instance, according to Akande et al (2011), it was discovered in research at the Unillorin Teaching Hospital Staff Clinic that utilization rose by around 144 percent following the implementation of NHIS. This was really consistent with a number of previous research that revealed that the use of medical facilities had increased due to health insurance installation (Luo et al, 2003; Speck et al, 2003; Sanusi and Awe, 2009). Correspondingly, according to Collins et al (2007), health insurance was found to have increased non-urgent use of medical facilities in a research conducted in Baltimore, USA. Another study conducted in Taiwan found that the use of intrapartum and prenatal care services rose once the NHIS was implemented (Li-mei et al 2001). The implementation of NHIS in Ghana also seems to have increased official health services usage. Between 2005 and September 2007, the utilization of OPD and in-patient department services nearly increased (MOH Annual Report, 2008). Health insurance, according to Ekman (2007), also increased the frequency of hospital use and decreased out-of-pocket expenses on medical treatment.

CHAPTER THREE
METHODOLOGY

3.1 Study Design

By identifying, assessing, and compiling the results of all pertinent individual research on a health-related topic, the study employed systematic review to make the available information more understandable to decision-makers. The systematic review's strengths comprise the question's specificity, the detailed search for proof, pertinent evidence's criteria-based selection, validity's rigorous assessment, quantitative summary or the objective, and the inferences drawn from the evidence (Cook et al., 1997; Greenhalgh, 1997). Integrating the most recent research findings with clinical knowledge and patient values is evidence-based healthcare (Glass, 1976). It is possible to assure best practice and lessen differences in healthcare delivery by using proof from reputable research to guide decisions of healthcare (Green, 2005). Through the research synthesis of numerous studies, systematic reviews seek to enlighten and facilitate this process, enabling more rapid and effective access to information (Sackett et al., 1996; Ried, 2006). Systematic reviews might also highlight knowledge gaps (Moher et al., 2009; Clarke, 2007). The results can then be used to direct future studies. Studies that were conducted utilizing qualitative, quantitative, or mixed methods were therefore included in the systematic review.

3.2 Research method

A systematic qualitative review concentrates on the meanings and interpretations of the participants and gathers data from observation, verbal interactions, or interviews. Focus groups, interviews, observations, and diaries are all included. Studies using numerical data will be incorporated in a systematic quantitative review. It is not unexpected that interest in mixed methods reviews is increasing given that one of the factors driving the expansion of qualitative synthesis is the value they may provide to quantitative evaluations. This follows similar trends in primary research where researchers are combining techniques to look at how theory and actual data relate to one another, which is of course the basis for a lot of study. However, analyzing complicated problems at several analysis levels and merging findings of research that have been examined in various ways and may be founded on quite diverse epistemological tenets are challenges that secondary and primary mixed research methods must overcome (Brannen, 2006; Creswell, 2011). Certain mixed-methods are convergent in that they combine various data and

analytical techniques at the same time (Morse, 2003; Pluye and Hong, 2014). Broad criteria inclusion (or more or two separate criteria sets) for main study methods and unique synthesis methodologies of the resulting variance in data are characteristics of convergent systematic reviews. Other reviews are collections of sub-reviews wherein one sub-study using one paradigm of research is followed by another sub-study employing a different paradigm of research. Primary mixed methods studies are also included in this category. Alternatively, a synthesis of qualitative may be utilized to explore the conclusions of a previous qualitative of quantitative (Pluye and Hong, 2014; Morse, 2003). The EPPI-mixed Centre's methods review of healthy eating barriers is an illustration of a sub-review that is primarily aggregative and then a sub-review that is configuring (Harden and Thomas, 2010). A small effect size was found in a sub-review on public health interventions' efficiency. Proof that the interventions of public health did not adequately consider such research user views and that the most aligned closely interventions to the user views were the most effective was provided by studies' configuring review of young people and children's views and understanding about eating. A qualitative customizing inquiry of an existing quantitative aggregative review might be made using the previously stated comparative analysis of qualitative to find the active elements inside interventions resulting in influence (Thomas et al., 2014). Realist synthesis is an illustration of a largely configurative review afterwards a review of aggregative. With a configuring review's first stage of what is suggested by the proposal or theory (what casual pathways would have to be effective and what would require to be in place for the proposed outcomes by be supported theory?), realist reviews look at the evidence supporting mid-range theories (Pawson, 2006). And a second step that looks for empirical proof to verify the existence of those prerequisites and the viability of the approaches. The empirical testing, however, employs a more iterative search for data that supports or refutes the hypothesis being reviewed rather than a traditional what works a priori procedures approach (Gough, 2013). Sequential mixed methods approaches are sometimes thought of as components of a single, bigger study, but they may actually be different studies when used as a part of a lasting, strategic method to research. Reviews are a way of investigating what more we want to know and what we know as a strategic method to studying the role of NHIS in Ghana and its effectiveness in providing adequate health for Ghanaians. Researchers have a tendency to see reviews and primary studies as one-off events.

3.3 Data Collection

For the purpose of conducting a literature search, the researcher employed three databases: Science Direct, Web of Science Core Collection, and PubMed. The top citation database in the world is Web of Science Core Collection. It includes records of papers from some of the international journals with the greatest effect. The premier source for scientific, technological, and medical research is ScienceDirect. Investigate periodicals, books, and articles. More than 34 million references to biomedical literature from MEDLINE, life science journals, and online books are included in PubMed. As at June 12 2022, 6 papers from the Web of Science Core Collection, 924 papers from the Science Direct database, and 21 papers from PubMed were among the database's findings. Studies on the catastrophic impact of out-of-pocket (OOP) medical expenses in Ghana, the consequences of NHIS, and health literacy role as a method to guarantee universal health coverage were found through the search. The systematic review is focused on the issue of how well Ghanaians are being cared for. Many various sources and techniques were employed in order to locate scholarly literature to explore the subject under inquiry. The sources listed in journal papers were mined, and their reference lists were explored to find other pertinent sources. Journal articles were then assessed for applicability.

3.4 Search criteria

This systematic review's search approach was based on PEO. PEO stands for Population, Exposure, and Outcome in its entirety. All English-language publications that had been evaluated and were of a mixed-method, qualitative, or quantitative character and related to the study's objectives were included in the search. The titles and abstracts served as the first screening (Khaleva et al., 2019). The final decision was then made using articles' entire texts. During this selection, there were duplicate articles in various databases. The same items were so removed, and additional identification was conducted. Eleven pertinent articles were eventually found (see Figure 3). The PRISMA chart reflected the selection process for the papers (Tasnim, 2019). PEO was used as follows;

P = population

People having access to healthcare in Ghana

E = exposure

Implications or effect or influence

O = outcomes or themes

Ensuring universal health coverage.

As a result, the search strategy was set to “universal health coverage” AND “National Health Insurance Scheme” AND “adequate healthcare” in the three database. The keywords used were;

- universal health coverage
- National Health Insurance Scheme
- adequate healthcare

3.6 Inclusion/exclusion criteria

The extension of PEO acquired from the review question served as the basis for the inclusion and exclusion criteria. The study's main focus was on how Ghana's national health insurance plan (NHIS) functions and how well it protects Ghanaians' health. Most Studies were looked up. The aims of this study were not applicable to articles that were published elsewhere which implies that all those articles that were not focusing on NHIS in Ghana and the objectives of this study were excluded and those articles that were focusing on NHIS in Ghana and the objectives of this study were included. Studies including both qualitative and quantitative scientific data were incorporated since they helped to clarify the study question. There were some studies that were only quantitative or qualitative. The systematic review and gray literature were omitted.

3.7 Screening and selection

The screening was done in stages, and the researcher removed any duplicate copies and articles that were obviously insignificant (Espinoza et al., 2020). Based on the abstracts found during the primary part of the search, the researcher performed an underlying screening. In this initial stage, the researcher opted to include the articles in order to avoid mistakenly excluding those that would have provided relevant information in full-text format (Espinoza et al., 2020). There is a wealth of literature that examines the function of Ghana's NHIS and how well it serves to ensure the citizens of Ghana have access to appropriate healthcare. The selection of articles was based on inclusion and exclusion criteria. Papers that examined the catastrophic impact of out-of-pocket (OOP) medical expenses in Ghana, NHIS implications in achieving universal health coverage, and health literacy impact as a method to guarantee universal health coverage were all

included in the inclusion criteria. Before skimming the full text articles, titles and abstracts were reviewed (Espinoza et al., 2020). Figure 3 depicts a PRISMA flowchart that summarizes the research selection procedure. The number of respondents, estimation method, measurable strategies, and impact estimations were not ordered when compiling the results (Hong et al., 2020). The selection procedure is depicted by the PRISMA flowchart in figure 3.

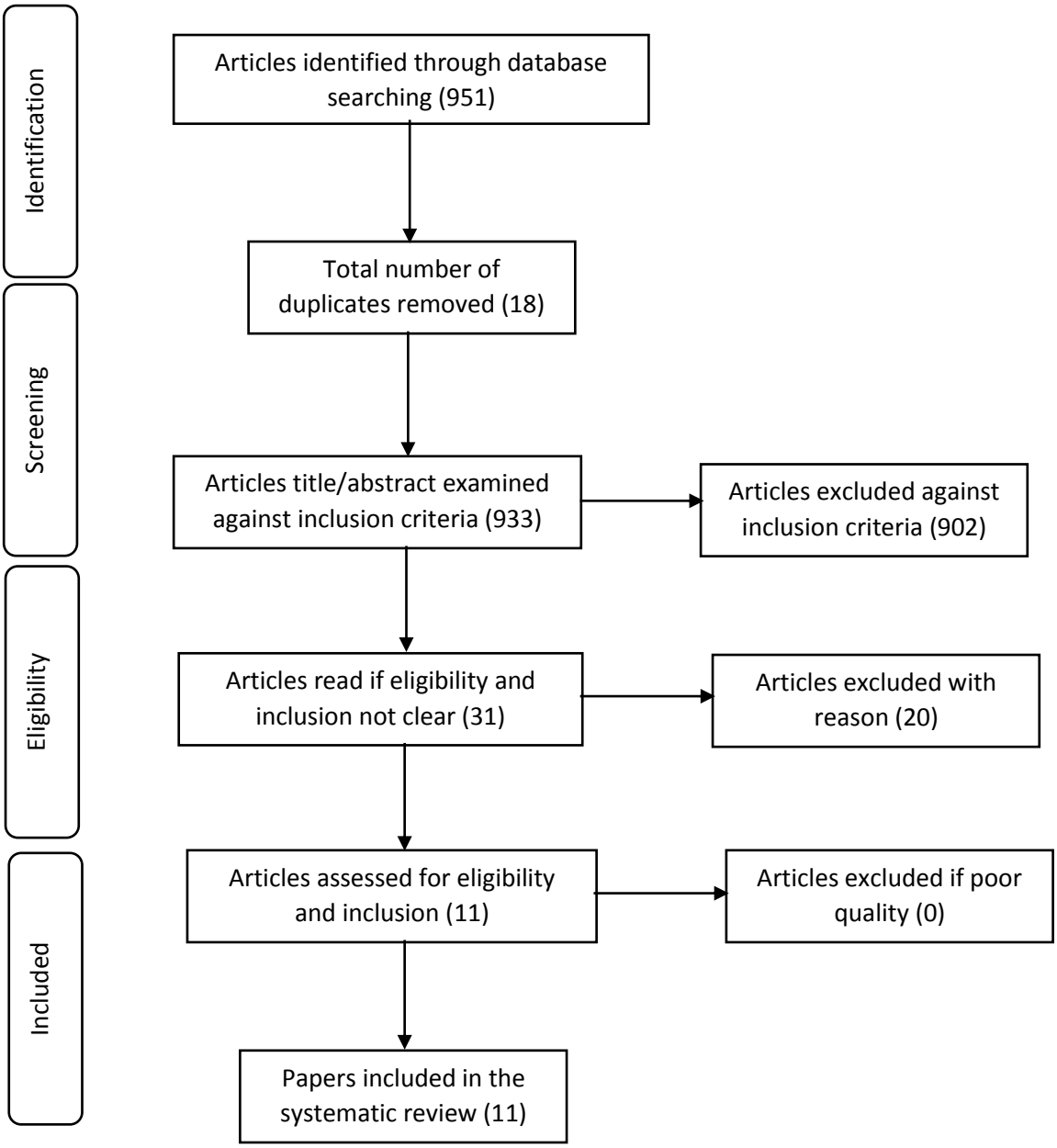

Figure 3: PRISMA flowchart

Printing out the databases used (PubMed, Web of Science core collection, and Science Direct database) for articles' search and the study's conclusions allowed for the creation of the PRISMA flowchart diagram (Fortunatti, 2014). Additionally, only papers published in English were included in the search (Ismail, Rajji, & Shulman, 2010). The search was geographically restricted to papers that used photographs taken in Ghana. Figure 3 displays the many articles indexed during the search. Any article that appeared more than once was manually removed in order to prevent article duplication. Figure 3 shows the total number of items that were taken out. The researcher used the titles and abstracts of all the connected papers to screen them for the study (Mateen et al., 2013). Articles that didn't match the inclusion requirements were screened out (Ismail et al., 2010). Figure 3 displays the many articles that were excluded following the screening. Articles that were excluded with reason were those that were not clear on the eligibility and inclusion criteria. The remaining papers were examined after calculating the total number of publications that met inclusion criteria but were ultimately excluded. Table 2 below lists the remaining publications that were chosen for analysis.

Table 2: Selected articles for analysis

Author and publication date	Clear aims / Criteria	Methodology identified / Appropriate	Research design / Appropriate	Data collected / Appropriately	Ethical Issues	Data analysis rigorous	Clear findings	Include in study
Akazili et al. (2017)	Y	Y	Y	Y	No issue	Y	Y	Y
Amporfu (2013)	Y	Y	Y	Y	No issue	Y	Y	Y
Akweongo et al. (2021)	Y	Y	Y	Y	No issue	Y	Y	Y
Kanmiki et al. (2019)	Y	Y	Y	Y	No issue	Y	Y	Y

Agorinya et al. (2019)	Y	Y	Y	Y	No issue	Y	Y	Y
Ipinnimo et al. (2022)	Y	Y	Y	Y	No issue	Y	Y	Y
Kipo-Sunyehzi et al. (2019)	Y	Y	Y	Y	No issue	Y	Y	Y
Awoonor-Williams et al. (2022)	Y	Y	Y	Y	No issue	Y	Y	Y
Kostareva et al. (2020)	Y	Y	Y	Y	No issue	Y	Y	Y
May et al. (2021)	Y	Y	Y	Y	No issue	Y	Y	Y
Amoah and Phillips (2018)	Y	Y	Y	Y	No issue	Y	Y	Y

3.8 Ethical Consideration

When starting a study, there are several moral considerations to make (Head, 2020). Some of these include the use of an appropriate philosophy, following predetermined guidelines, consulting sources over the course of the investigation, and, among other things, misrepresenting the results (Head, 2020). The studies that were used in the study rigorously followed ethical standards, making sure that proper citations were made and that any incorrect information about those papers was avoided. The papers' characteristics played a key role in creating a thorough systematic review with the least amount of sound and bias objectives (Khan, Antes, Kleijnen & Kunz, 2003). Considering the citations' character before included them in the study foresaw problematic endings' emergence (Thomas & Harden, 2008). The steps taken to overcome these obstacles include properly citing each article, adhering to predetermined tactics, and refraining from literary theft. For this, peer-reviewed articles that evaluated prior studies were used, which did not call for a separate quality assessment.

CHAPTER FOUR
RESULTS AND DISCUSSION

4.1 Selection results

In all, 951 articles were found using the systematic review process in Chapter 3. (See figure 4 in chapter three). Total of 18 duplicate articles were removed from the analysis. 31 articles were left that were eligible for the inclusion criteria after 902 items were eliminated. 28 articles out of the 31 were excluded because it was unclear whether they qualified for inclusion. Eleven papers that passed the eligibility and inclusion checks made up the remaining articles. Each of the seven papers was chosen for consideration in the study after the quality of the eleven articles allocated for analysis was evaluated. Eleven publications were chosen for study, and they were (Akazili et al., 2017; Amporfu, 2013; Amoah and Phillips, 2018), Akweongo et al. (2021), Kanmiki et al. (2019), Agorinya et al. (2019), Ipinnimo et al. (2022), Kipo-Sunyehzi et al. (2019), Awoonor-Williams et al. (2022), Kostareva et al. (2020), May et al. (2021).

4.2 Theme identification tables and data extraction process

The extraction method was carried out as shown in figure 4 of chapter three. Based on the study's goals, data from the eleven papers were divided into three themes (groups). These are:

1. The catastrophic effect of out-of-pocket (OOP) healthcare payments in Ghana.
2. The implications of NHIS in achieving universal health coverage.
3. The role of health literacy for universal health coverage in Ghana.

4.3 Theme one:

4.3.1 The catastrophic effect of out-of-pocket (OOP) healthcare payments in Ghana

Healthcare costs in underdeveloped nations like Ghana may exceed food costs as a percentage of overall spending (Agorinya et al., 2019). As a result, Akazili et al. (2017) publish their findings for non-food expenditure and total expenditure. Regardless of the index used for estimation, the proportion of households making catastrophic payments must necessarily decrease when the threshold is raised (Akweongo et al., 2021). This demonstrates how the threshold set affects the frequency and magnitude of catastrophic healthcare expenses. According to Akazili et al. (2017), household non-food expenditure and total household expenditure were used to calculate the

catastrophic healthcare costs for different thresholds for the above-mentioned indices. According to Akazili et al. (2017), 11.0% of Ghanaian families spent more than 5% of all household healthcare expenditures in the years 2005–2006. A 10% criterion results in a 50% decrease in the number of households (Kanmiki et al., 2019). More than 20% of all household expenditures were reportedly spent by about 2.6 percent of households. Additionally, Akazili et al. (2017) found that at the threshold of 5% of total income, 10.9 percent of the population experiences catastrophic overall healthcare expenditures when catastrophic payments' concentration is considered. At the 20 percent mark, the numbers decrease to 2.7%. It is significant to notice that the weighted headcount (10.9 percent) at the five percent total expenditure threshold is somewhat lower than the original headcount, according to Akazili et al. (2017) (11.0 percent). This indicates that wealthier households are more slightly likely to make payments of catastrophic at this level (the positive index of concentration confirms it). The negative concentration indices show that the poor are frequently more encountered with catastrophic health costs at greater thresholds of total household spending (Agorinya et al., 2019). Moreover, for the headcount of catastrophic using expenditure of non-food, 10.7 percent of households spent over 10 percent of their consumption of non-food expenditure OOP on healthcare (Akweongo et al., 2021). Outcomes from using overall expenditure of non-food as the denominator display that the poor are more burdened with expenditure of catastrophic as revealed in the negative indices of concentration (–0.045, –0.019, – 0.087 and –0.080 at the 20 percent, ten percent, forty percent and 30 percent thresholds of household expenditure of non-food, respectively) (Kanmiki et al., 2019).

4.4 Theme two:

4.4.1 The implications of NHIS in achieving universal health coverage

Amporfu (2013) gathered the information for the study by administering questionnaires to NHIS members in Accra, the nation's capital, and Kumasi, one of the two largest cities (the commercial city). The decision to choose metropolitan areas was made because of the possible benefits. Due to the dense population, it is firstly simpler to obtain a large sample in an urban location than in a rural one (Ipinnimo et al., 2022). Second, the amount of subsistence level in lifestyle is directly related to the information on capability to pay that is crucial for the research. Rural households' financial capacity may be underestimated because of the high living cost there. A farmer in a

rural region, for instance, might not spend as much money on food as an urban resident would since the farmer could be able to acquire certain food supplies from the farm (Kipo-Sunyehzi et al., 2019). Thus, compared to rural residents, the cost of food is likely to be substantially greater for urban residents (Awoonor-Williams et al., 2022). The respondents were heads of households who made NHIS premium payments. Since Accra and Kumasi have populations over 4,000,000, it is impossible to use data census for the study. Amporfu (2013) discovered that 58 percent of the data came from Accra. In the Greater Accra area, a sizable portion of enrollees are probably from the unorganized sector. The average annual premium paid by each household was GHC21.00 (US$13.13), whereas GHC5,915.07 (US$3,696.91) was spent on food and other expenses. Consequently, the premium made up on average 0.35 percent of the overall capability to pay. Though, the high standard deviation of capability to pay (5119.5) and the lesser standard deviation of premium (15.67) suggested that premiums' proportion based on capability to pay could be relatively high for certain households (Awoonor-Williams et al., 2022). The degree of the ability to pay variation is demonstrated by the five income groups. According to Amporfu (2013), the first quintal, which is the poorest group, had an average yearly expenditure of US$1,136.56 (GHc 1,818.50), meaning that households in this category subsisted on US$3.11 per day. This price was barely beyond the US$2.00 per day poverty level, showing that, on average, the poor are not required to pay a premium (Kipo-Sunyehzi et al., 2019). With 710.32 standard deviation, it is plausible that some of the impoverished may find the premium burdensome or that certain indigents were paying the premium.

Drawing concentration and Lorenz curves allowed researchers to determine the premiums' progressivity. Amporfu (2013) demonstrates that the concentration curve was consistently higher than the Lorenz curve, demonstrating the premium contribution's regressiveness. According to Amporfu (2013), the Kakwani index estimate yielded a result of -0.32. The results from comparing the concentration and Lorenz curves are supported by the negative sign, which denotes regressiveness. Another convenience regression for the Kakwani index was done with dummy factors' inclusion for Kumasi, education, marital status, and sex to examine how regressivity differed across other categories of participants (Ipinnimo et al., 2022). With the exception of gender, Amporfu (2013) demonstrates that all of the slope dummies were negative and statistically significant. According to these findings, Kumasi rates were regressive more than

premiums of Accra. The findings likewise indicated that regressivity was higher in those with university and secondary education than in those with only a basic education and no education, and higher in married people than in single people (Kipo-Sunyehzi et al., 2019). However, the regressivity was unaffected by gender. According to the findings of the premium's impact on income redistribution, V was -0.00113, accounting for less than 1% (0.28%) of the premium's overall redistributive effect. This might be because only a small portion of the premium is covered by ability to pay. 99.6% of the RE was made up of the H + R, which was 0.3933 (Ipinnimo et al., 2022). Given that horizontal injustice frequently results in reranking, this study viewed the sum as a form of horizontal unfairness. Therefore, the unequal treatment of equals was significantly more significant than unequal treatment, which has gained literature emphasis, in the premiums' redistributive effect. Information absence on capability to pay in the informal sector suggests that the premium amount paid could rely on variables other than capability to pay, therefore it is not surprising that the horizontal imbalance is significant (Awoonor-Williams et al., 2022). A linear regression was conducted using characteristics of members as the independent variables and the premium's natural log as the dependent variable including capability to pay, age, location, gender, education level, and marital status. A linear regression's functional form does not require the projected values to be positive, therefore it is likely to have predicted negative premiums, which weakens the outcomes. Therefore, the natural log of premium was employed (Kennedy, 2003).

4.5 Theme three

4.5.1 Health literacy for universal health coverage

According to Amoah and Phillips (2018), the participants' average age was 36 years (15), with women making up the majority (53 percent). 53 percent of the participants were urban inhabitants, which predominated. The majority's greatest level of education was junior high school. According to Amoah and Phillips (2018), the healthcare instrument access showed strong reliability, with a split-half Spearman-Brown coefficient of.85 and a Cronbach's alpha of.87. An excellent theoretical match to the data was also shown by the CFA (Arbuckle, 2012). Their findings showed that, on average, individuals had little or moderate access to healthcare (58%) and that access to care was often limited. According to Amoah and Phillips (2018), the majority of participants had health insurance that was still in effect for the year before data collection.

Exploratory factor analysis was used to extract one factor with an eigenvalue >1 from the composite HRQoL score (Kostareva et al., 2020). This variable accounted for 80.3% of the variation in HRQoL. However, due to inadequate loading on the factor structure, the question regarding general health status was eliminated. In terms of HRQoL, age and marital status were related. Poor HRQoL was more prevalent in people who were older (60 years or older). Additionally, married people were less probable than singles to have poor HRQoL (May et al., 2021). Health insurance ownership and health literacy (HL), nonetheless not access to healthcare, were both significant predictors of poor HRQoL. Amoah and Phillips (2018) discovered that these two point to a causal relationship. A negative correlation between (bad) HRQoL and HL was created by the interaction term between healthcare access and HL. Similar findings were made regarding the relationship between HRQoL and the period of the health insurance subscription and HL (Kostareva et al., 2020). These showed that HL positively impacts how healthcare access and health insurance affect HRQoL. Amoah and Phillips (2018) used a straightforward slope analysis to validate this. When HL was high, health insurance subscription negatively predicted low HRQoL. At low levels of HL, a detrimental but negligible connection was seen. When HL was high, access to healthcare also had a favorable impact on HRQoL; however, when HL was low, this association between bad HRQoL healthcare access and was positive but not statistically significant (May et al., 2021). Therefore, neither having access to healthcare nor having health insurance had a substantial impact on HRQoL at low HL levels. According to the directions in both figures, HL appears to reinforce the harmful associations between a lack of access to or insurance for healthcare and a poor quality of life.

CHAPTER FIVE
DISCUSSION

5.1 Summary of results

The purpose of this study was to determine the catastrophic effect of out-of-pocket (OOP) healthcare payments in Ghana; determine the implications of NHIS in attaining universal health coverage; and the influence of health literacy as a strategy to ensure universal health coverage. The three synthesized findings were:

4. The catastrophic effect of out-of-pocket (OOP) healthcare payments in Ghana.
5. The implications of NHIS in achieving universal health coverage.
6. The role of health literacy for universal health coverage in Ghana.

5.2 Theme one:

5.2.1 The catastrophic effect of out-of-pocket (OOP) healthcare payments in Ghana

Using a cross-sectional national data set obtained in 2005/2006, while national health insurance plan of Ghana was only being started, researchers have looked at the financially devastating implications of healthcare payments. According to Akazili et al. (2017), regardless of the threshold taken into account, a large proportion of Ghanaian households experienced financial disaster. In comparison to other emerging nations, households spending percentage more than five percent of their entire income on healthcare is greater here, at 11.0%. (For example, Malaysia, Thailand and Philippines) (Akweongo et al., 2021). For example, only seven percent of households in Malaysia spent more than five percent of their entire income of household on OOP healthcare in 1998–1999. In the Philippines, below ten percent of households spent more than five percent of their overall household healthcare income that year, according to the poverty indicator study (van Doorslaer et al., 2007; Wagstaff & van Doorslaer, 2003). In 2002, less than 9% of households in Thailand spent more on healthcare than their total household income (van Doorslaer et al., 2007). Higher numbers, nevertheless, were seen in Vietnam and China. For example, twenty-eight percent of Chinese households reported payments of OOP that exceeded five percent of their overall income, whereas 38 percent of Vietnamese households reported disastrous expenses in 1993 that above the 5 percent threshold (van Doorslaer et al., 2007; Wagstaff & van Doorslaer, 2003). According to a research conducted in Nigeria, up to 39% of households reported OOP healthcare expenses that were higher than five percent of their overall

income of household (Ichoku & Fonta, 2009). The findings of this study also indicate that the catastrophic headcount at 5% level of total household income has a positive concentration index. For higher thresholds, the concentration indices were, nevertheless, negative. As a result, the weighted headcount at the 5% level was under the unweighted (Kanmiki et al., 2019). According to this finding, poorer households in Ghana tend to spend a significant portion of their overall income OOP on health services, with payments of catastrophic being focused more among the poor at higher overall household income thresholds. This brings up the matter of selecting a suitable cutoff point for evaluating financial catastrophe (Agorinya et al., 2019). The results unequivocally show that thresholds matters' choice, as evidenced in Ghana instance, even though this article is unable to answer the question of what threshold is the most appropriate.

General economic development appears to have an indirect impact on the proportion of households in a nation that spend over 5% of their overall household healthcare expenditures (Ipinnimo et al., 2022). The percentage of households in Ghana with OOP payments above 5% of income indicates the country's modest economic progress over the past ten years, which led to a reduction in overall poverty. The economy improved from early 1980s negative growth of GDP to over six percent growth of GDP in 2007/2008 (ISSER, 2008; Ghana Statistical Service, 2007). Providing 10.7 percent of households spent over 10 percent of their consumption of non-food spending on healthcare, it is clear from the statistics reported in this study that expenditure of non-food consumes a sizeable portion of household resources. Only 1% of Malaysian households spend over ten percent of their consumption of non-food on healthcare (van Doorslaer et al., 2007). After meeting basic dietary requirements, healthcare expenses can consume a significant part of resources for a significant population portion. According to comparable studies conducted in Asia, between eight and sixteen percent of households in nations like Bangladesh, Vietnam, Nepal, and Kyrgyzstan spend more than twenty-five percent of their non-food income on payments of OOP (van Doorslaer et al., 2007; O'Donnell et al., 2008). Because of the extreme poverty in Kyrgyzstan and Nepal, less money is available for healthcare because food consumes a substantial portion of household income. This study demonstrates that the poor are more affected by catastrophic healthcare costs when utilizing household non-food spending. The negative indices of concentration, which raise the weighted headcount values above those of the unweighted headcount, serve as confirmation of this. Given

that food costs account for a bigger portion of household budgets in poorer households, these results are to be expected. Similar findings have also been observed for South Korea, China, Sri Lanka, Nepal, Taiwan, and Vietnam, where poorer households were likely more than wealthier households to experience significant catastrophic expenditures (van Doorslaer et al., 2007). These findings in Ghana, where lower-income families were likely more than groups of higher-income to pay for catastrophic healthcare at higher thresholds, highlighted the ineffectiveness of the user fee exemption package as well as the initiatives for reducing poverty (Awoonor-Williams et al., 2022).

To mitigate user fees consequences, the exemption policy was implemented in the health sector in the 1980s. Poor people, people over the age of 70, kids under five, and anyone receiving prenatal care were all supposed to be excluded from paying OOP. However, the efficient implementation of this exemption scheme was hampered by the inability to identify the underprivileged, the elderly, and others (McIntyre, 2003). Payments of catastrophic are disproportionately made by the wealthier sections in nations like Malaysia, Indonesia, the Philippines, and Thailand where exemptions were more successfully introduced. It is crucial to remember that the catastrophic payment gap reflects both the prevalence and the intensity. The mean positive gap, catastrophic gap, weighted gap, and concentration indices results show that as we move to a higher from a lower threshold, the weighted gap's and gap' indices decrease in expenditure measures of non-food and the overall household expenditure. The concentration index's negative values specify that the poor are likely more than others to have healthcare expenses that are above the criteria (Kostareva et al., 2020). Accordingly, the expenditure measures of non-food and the overall household expenditure show that the intensity of catastrophic payments has a greater impact on the poor than the rich. Mean overshoot's large results imply that there is a high catastrophic health expenditure intensity among households suffering such expenses, particularly among the poor, and that it is pronounced more with expenditure of non-food. For example, among individuals allocating over twenty-percent of overall spending to payments of OOP for healthcare, the average payment of OOP share surpasses this barrier by about forty-four percent points of percentage, giving a 64% important OOP budget share.

The typical budget share for individuals who spend more beyond the threshold of 20% of non-food expenditures is substantially greater, at roughly 75% budget shares of OOP. This shows food expenses' higher proportion in overall household spending, particularly for the poor. According to the household expenditure survey conducted in Nepal in 1999/2000, among those who spent over twenty-five percent of their expenditure of non-food on payments of OOP, the average budget share of OOP was 34% higher, or 59%. In Bangladesh, according to van Doorslaer et al. (2007), the OOP budget share was 44%. According to the statistics, Ghana has a higher rate of catastrophic payments than nations like Bangladesh and Nepal (van Doorslaer et al., 2007). If the poor or the rich are likely more to exceed certain thresholds, it is vital for makers of policy to know this information. In Ghana, poorer households are likely more to surpass the criteria in terms of non-food expenditure and overall household expenditure on all the thresholds, as this article demonstrates (Kostareva et al., 2020). The catastrophic gap's negative concentration index and substantially bigger weighted catastrophic payment gap serve to highlight this (WG cat). Contrary to these findings, wealthy households in many Asian nations are more likely to overshoot than disadvantaged households (van Doorslaer et al., 2007). Another finding from a study done in Nigeria was that wealthier households have a tendency to spend more on catastrophic medical expenses (Ichoku & Fonta, 2009). The results of the severity of catastrophic payments show that OOP payments are regressive. The paper's use of nationally representative data to examine Ghana's financial calamity is one of its key strengths. Additionally, since the weekly diary approach was employed for data gathering, the information on OOP spending is extensive (Akweongo et al., 2021). The study does, however, have certain shortcomings. The propensity of survey-based methods to underestimate the risk encountered by households poorer that are incapable to access care due to cost is a significant drawback (and therefore stated expenditures of zero health).

Another drawback is that shocks of illness have disastrous economic repercussions that extend beyond only medical costs and lost wages. Despite these restrictions, healthcare spending that exceeds a significant portion of household resources is instructive, as a minimum in relation to some of illness' economic catastrophic consequences, though it does not entirely address welfare losses due to absence of protection of financial risk against shocks of health (van Doorslaer et al., 2007). Future studies using more new datasets, once they become available, are required in order

to continue tracking Ghana's pattern of catastrophic expenditures of health and, in fact, protection of financial risk as the nation moves closer to UHC. This is as the used data in this research are from an earlier GLSS round. The findings of this study also highlight the crippling nature of OOP payments of healthcare and offer compelling arguments for Ghana and other developing nations to swiftly switch to a system of pre-payment in comprehensive health insurance form. These countries frequently rely heavily on OOP payments, which are very regressive. This will equip nations to advance toward universal healthcare coverage as well as offer the citizens sound financial risk protection. This information will undoubtedly motivate planners and decision-makers to step up their labors to guarantee that everyone, particularly the vulnerable and underprivileged populations, is sufficiently enclosed by a system of pre-payment like Ghana's national health insurance program. It will be crucial to endure analyzing data of national survey even inside the national health insurance regime to determine whether the national health insurance scheme is assisting in lowering poverty and catastrophic prevalence impacts of healthcare costs.

5.3 Theme two:

5.3.1 The implications of NHIS in achieving universal health coverage

According to Amporfu (2013), the premium for members in Kumasi and with tertiary education decreased but marginally increased with ability to pay. This suggests that after adjusting for financial capability, persons with university education in a certain income bracket were probably going to pay a lesser premium than those with less education. Since Kumasi has a lower living cost than Accra, the lower premium is not surprising (May et al., 2021). More significantly, the lower premium in Kumasi compared to Accra may be the reason for Kumasi's greater percentage of NHIS enrollment. Amporfu reports the outcomes of the catastrophic expense study (2013). As anticipated, as the threshold was reached, both the incidence and the intensity reduced. The findings of Amporfu (2013) demonstrate that indices of the concentration were all negative, indicating that the poor were more likely than the rich to experience expenditure of catastrophic for any given threshold. This is in line with the findings about the premium's regressiveness. The extra information in this case is that the premium's regressiveness can place a financial burden on the underprivileged. Nevertheless, the findings also demonstrate that, regardless of the threshold chosen, fewer than 1.5% of the sample consisted of people who were likely to face catastrophic

costs (Ipinnimo et al., 2022). When the threshold was raised from 5 to 10 percent and above, the fraction even fell to less than 1 percent. This is in line with the horizontal inequity, which holds that the premium actually hurts some of the poor. This suggests that very few members of the sample actually make catastrophic payments. And it's likely that this little portion of the sample is underprivileged. The data on the catastrophic expenditure magnitude revealed that, regardless of the threshold chosen, the average degree through which the payment of premium as expenditure share surpassed the threshold was below 1%. With the 0.1 percent overshoot exception for the five percent threshold, the other values were all quite close to zero. The implication is that the payouts were marginally catastrophic relative to the criteria when distributed across the entire sample. Irrespective of the threshold, the mean overshoot for individuals whose payment surpassed it was higher than 7%. This suggests that those who spent over five percent of their income on premiums spent an average of 14.67%, while those who spent more than 20% spent an average of 27.14%. A small percentage of the impoverished are then burdened financially as a result of the premium. Because the results for the 20 percent threshold were so identical to those for the 15 percent threshold, they were not reported. The findings indicate that, except from capability to pay, none of the household head's qualities significantly influenced the likelihood of racking up catastrophic costs (Kipo-Sunyehzi et al., 2019). These findings are in line with the finding that solely a small percentage of the population experienced catastrophic costs. Only the capability to pay variable was significant statistically, thus a linear regression was conducted using the household head characteristics as the independent factors and the capability's natural log to pay variable as the dependent variable. According to Amporfu's (2013) findings, households with these traits are unlikely to experience catastrophic costs as a result of the premium payment. These findings support the hypothesis that Accra's NHIS enrollees are probably low-income. According to Amporfu's (2013) findings, those with secondary and basic education are more probable to be in poverty than those with university education and those without any formal education. It's possible that persons with less education (basic and/or secondary) are unwilling to accept physically demanding professions even if they pay higher than suitable jobs (such as receptionists, storekeepers, etc.) for those with less education.

5.4 Theme three

5.4.1 Health literacy for universal health coverage

Unsurprisingly, the preliminary findings revealed that low HRQoL is related to aging. Older age can likewise be accompanied by compromised or weakened immunity, which reduces resistance to several common health issues and can heighten the necessity for knowledge about medical and health care. Certainly, multi-morbidities (two or more long-term diseases) are a common form of disease burden in older people, yet they are occasionally ignored (Banerjee, 2015). The elderly are likewise less probable to have enough HL, which is believed to help with reasonable judgment about health, because to their inadequate education (Duong et al., 2015). This conclusion is corresponding to that of several research conducted in both developing and wealthy nations (Kobayashi et al., 2015). Better HRQoL was linked to marital status. Marriage is recognized to function as a psychological support system and to be linked to improved health (Umberson and Montez, 2010). It typically acts as a buffer against life's challenging circumstances by providing emotional, informational, and practical assistance, including financial aid (Koball et al., 2010). A study among African Americans in the USA found that being married improves healthy decisions and behaviors such as reducing smoking, binge drinking, and drug usage (Levin-Zamir and Wills, 2012). Such viewpoints frequently support improved health and life quality. The major conclusions of the study showed that a person's HL is highly correlated with the impact of healthcare access on HRQoL. A cost-effective strategy to secure better results from efforts to attain universal health coverage, given factors' variety that impact how much access a person has to healthcare, is to improve HL (UHC). HL has the capacity to reduce barriers to health care, for example societal and cultural constraints (Levin-Zamir and Wills, 2012). HL tends to make the health system more culturally competent and contextually relevant, which benefits both (possible) patients and the health system as a whole (Levin-Zamir and Wills, 2012).

Furthermore, adequate HL can help users identify the systems' advantages and disadvantages and make the necessary adjustments, as a minimum in a particular health system context (May et al., 2021). This is the reason that, as evidenced here and elsewhere, low HL is related to a lack of healthcare access (Pignone et al., 2005). For example, a person with a high HL who lives in a rural area with limited access to medical care is less probable to put off getting the essential

medical care. This helps to explain why people with high HL are more probable to think favorably about their health, utilize the emergency room, stay in the hospital, and even experience preventable mortality (Berkman et al., 2011). This conclusion is supported by earlier research. For instance, a research among women in Ghana urban found that respondents with low HL found it challenging to operationalize and evaluate information while obtaining medical care (Amoah et al., 2017). The observation was partly attributed by the authors to the women's persistent mixing up and mistaking conventional recommendations for normative practices. Thus, even for people who are currently in clinical settings, HL improves access to healthcare. Because of this, health promotion initiatives should not be just the duty of the health sector given the possible impact of HL on access to healthcare (WHO and UNDP, 2016). The study's conceptualization of health promotion has a strong association with other social elements (such systems of belief) and economic issues that are outside the health system's purview. Moreover, people with adequate HL are frequently better or more prepared to pursue substitute options to advance their chances when faced with obstacles to receiving health care owing to economic constraints (Kostareva et al., 2020). According to studies, people with chronic illnesses who have low HL are less motivated to use the resources available to them to get better healthcare (Sarkar et al., 2010). These claims are supported by the study's findings. Even though it was affordable and available to everyone in Ghana, health insurance was only beneficial if one's HL was high. This gives factual support for other research conducted around the world (Hardie et al., 2011; Rasu et al., 2011) that found a correlation between high healthcare costs and low HL. People with low HL may be unable or reluctant to participate sufficiently in the healthcare system to meet their financial demands.

Low HL may be the cause of recent protests against the deployment of crucial provider payment systems like the capitation method as part of the NHIS program (McIntyre et al., 2008; Pignone et al., 2005). The observation on ownership of health insurance can likewise be understood from belief systems and regional culture perspective, much like its connection to access to healthcare. Cultural norms can significantly influence the final effectiveness of an insurance scheme in various West African communities. For instance, whereas some people are very risk adverse, others downplay the risks of illness. Planning for a negative event, like poor health, may bring bad luck, according to some societies (Wang et al., 2012). The data suggested that the

association between HRQoL and health insurance ownership is truncated, and this is likely due to some of these contextual information and practices. Other studies have confirmed this claim, finding that factors except economic ones, such as other social practices and knowledge gaps, have an impact on individuals' and households' desire to enroll in Ghana's NHIS (Kusi et al., 2015). While others contend that households and people might place other necessities, such food, ahead of health-associated issues, as has been shown in the USA and somewhere else, such observations show how HL affects the number of people who enroll in health insurance (Levy and DeLeire, 2008; Bundorf and Pauly, 2006). These insights, which capture the essence of HL, are consequently not unique to Ghana. Based on this research, health education methods should try to take into account the larger societal makeup, in part because there is no one solution that applies to all UHC situations (World Bank, 2016), and HL improvement would be a key element. These results lend credence to the first question, which was how much the public can benefit from sensible policies if they are ill-prepared to comprehend and interact with the healthcare system. The results do, in fact, provide substantial evidence that HL might be the crucial missing piece in efforts to guarantee UHC in the African region (Hasnain-Wynia and Wolf, 2010). The results support the necessity to increase HL research and funding in UHC push in developing nations like Ghana, taking into account its indirect and direct impacts on HRQoL. The fact is that "increasing HL in populations provides the foundation on which citizens are enabled to play an active part in improving their health, engage successfully with community action for health, and pressure governments to meet their obligations in addressing health and health equity" (WHO and UNDP, 2016). Therefore, HL is empowering (Nutbeam, 2000; Schulz & Nakamoto, 2013). To this reason, enhancing HL as a key strategy is essential to achieving UHC in Ghana and several other low-income nations, especially for the poor and marginalized (World Bank, 2016). Localized efforts in Ghana and other poor nations aid in raising HL and reducing the disastrous effects of low HL (Amoah, 2017), but there should be concerted efforts to support and expand such programs (WHO and UNDP, 2016).

CHAPTER SIX
CONCLUSION AND RECOMMENDATION

6.1 Conclusion

General, it should be underlined that OOP payments have a catastrophic impact on Ghanaians and that households in poverty are more likely to experience financial disaster. Ghana was worse off than South Africa, Tanzania, Sri Lanka, Malaysia, Indonesia, and Thailand when compared to other African and Asian nations, having OOP payments' higher catastrophic effect (using 10% overall expenditure and 40% expenditure of non-food thresholds). Ghana, however, is doing better than Bangladesh, China, and Nepal. Higher catastrophic healthcare costs relate to significant OOP payments in the nations that have higher catastrophic costs. The findings of this study provide baseline metrics for evaluating Ghana's health insurance policy's effect on catastrophic medical expenses. The study also looked at the justice of the Ghanaian National Health Insurance Scheme's premium contribution. The analysis concentrated on the risk that the premium might force members to incur catastrophic costs as well as vertical and horizontal equity. The findings demonstrate that horizontal inequality outweighs vertical inequality. Although the premium is regressive, this does not alter the horizontal imbalance as much as the redistribution of capability to pay. The research has demonstrated that, after adjusting for ability to pay, premiums are higher in Accra than Kumasi and lower for members who have completed tertiary education than for those that have not. The study also revealed that a small percentage of the poor are probable to suffer catastrophic costs as a result of the premium. Since achieving universal coverage necessitates that all inhabitants have access to protection of finance, having certain inhabitants—no matter how small a percentage—face catastrophic costs can prevent the goal from being reached.

The study made an effort to progress our understanding of the way HL contributes to national and local health policy objectives like UHC. The results showed that levels of HL have a significant role in determining how access to healthcare and health insurance affect HRQoL. The findings imply that even supportive policies for UHC are probable to fall short of goals in the face of low HL. So, it should be emphasized that HL must be a primary plan for policies intended to reduce health inequities and disparities, especially in other emerging nations and Ghana that are comparable. When advancing the HL agenda, it is prudent to be aware of the

various power dynamics and distinctive cultural and socio-economic situations. This is because HL has ingrained regional and historical characteristics, just like the other HRQoL determinants it affects (such access to healthcare and health insurance). Accordingly, strengthening HL calls for involvement in health and intersectoral concentrated efforts in nations like Ghana where studies on and use of the method are limited.

6.2 Recommendations

Three policy recommendations are made by the study to increase equity. The study's findings may indicate that some indigent may be paying premiums given that those who are indigent are exempt from doing so. Therefore, the number of people who experience catastrophic expenditure may be further decreased if additional efforts were made to classify the impoverished in metropolitan areas who qualify for exception. The lack of common guidelines for Districts Mutual Health Schemes regarding how much to charge in accordance with factors that are associated with members' economic condition may be the cause of the significant horizontal imbalance. These traits could include things like age, profession, place of residence, housing, etc. Gardeners, petty shopkeepers, and porters might all pay the same premium, as might small restaurant operators, seamstresses/tailors, and proprietors of hair salons. The economic position of those in a comparable occupation who reside in the same or a nearby neighborhood is likewise likely to be uniform. The Ghana Livelihood Empowerment initiative allowed the community to be used to verify claims of individual's economic position. Although there would undoubtedly be issues with such a program, it would assist to greatly reduce the current unfairness issue. It might not be essential to eliminate the premium as a source of income given that only a tiny fraction of members are forced to incur catastrophic costs as a result of the premium payment. Lessening the catastrophic expense can be more advantageous than eliminating the premium.

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