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SCHOOL OF PUBLIC HEALTH

COLLEGE OF HEALTH SCIENCES

UNIVERSITY OF GHANA

ASSESSMENT OF DIRECT AND INDIRECT HEALTH COST OF WOMEN SEEKING MATERNAL HEALTH CARE SERVICES UNDER FREE MATERNAL HEALTH CARE POLICY IN EASTERN REGION OF GHANA

BY

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(11366670)

THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER OF PUBLIC HEALTH

NOVEMBER, 2025

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DECLARATION

I, Janet Nsorpika, declare that this thesis is my original piece of work and that I have acknowledged all materials and sources used. The researcher also declares that this work has not been submitted to any other university for the award of a degree.

27-08-2025

………………………………… ………………………

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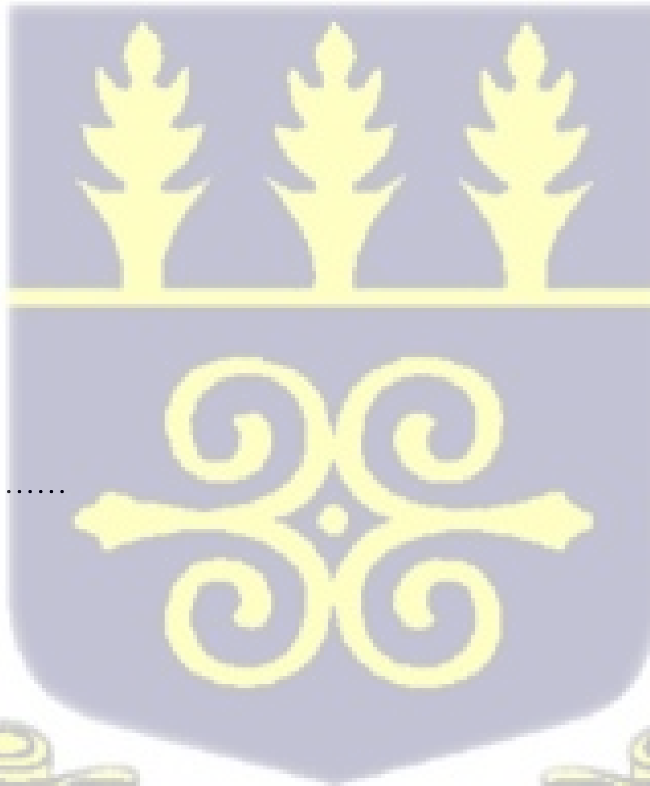

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Dr. Richmond Owusu Date

(Supervisor)

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DEDICATION

This piece of work is dedicated to my family for their support and encouragement throughout the conduct of this work.

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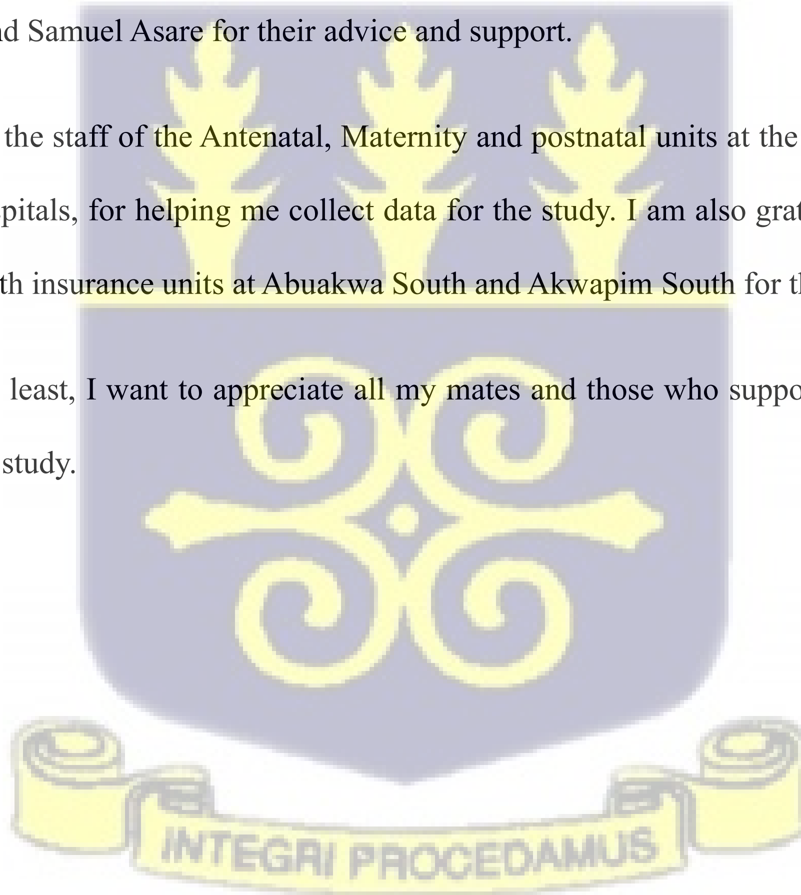

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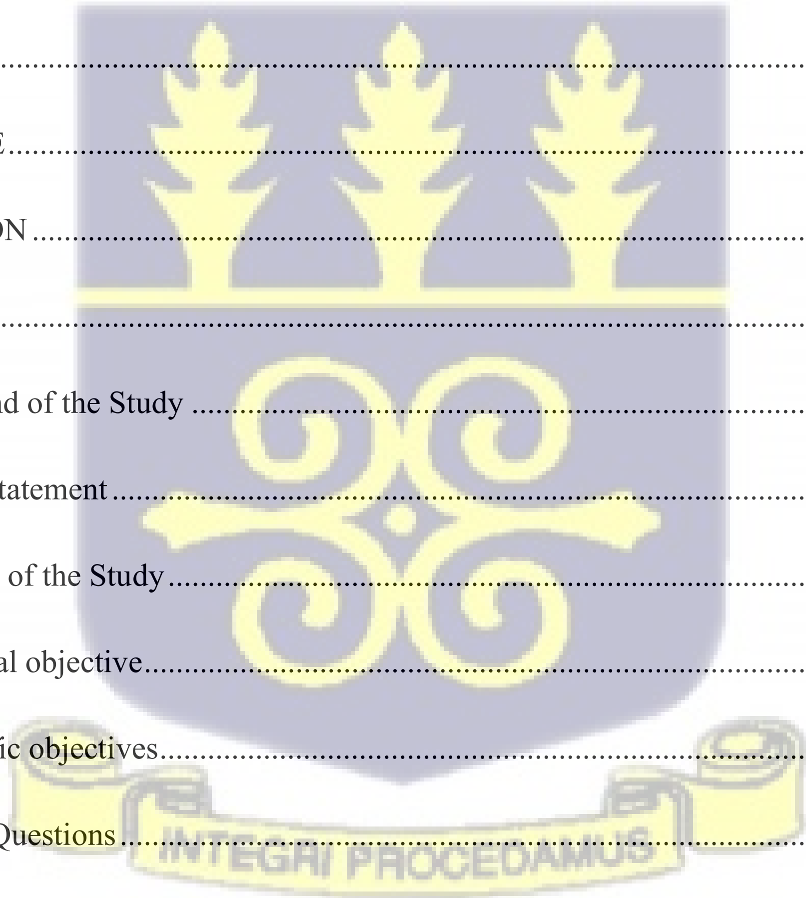

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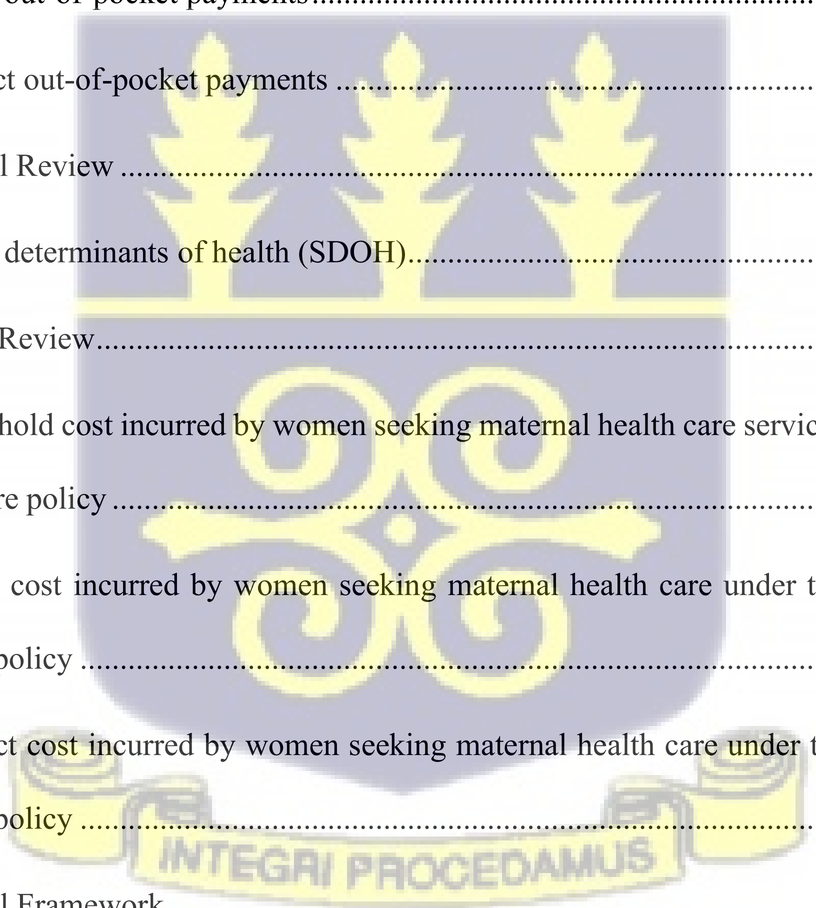

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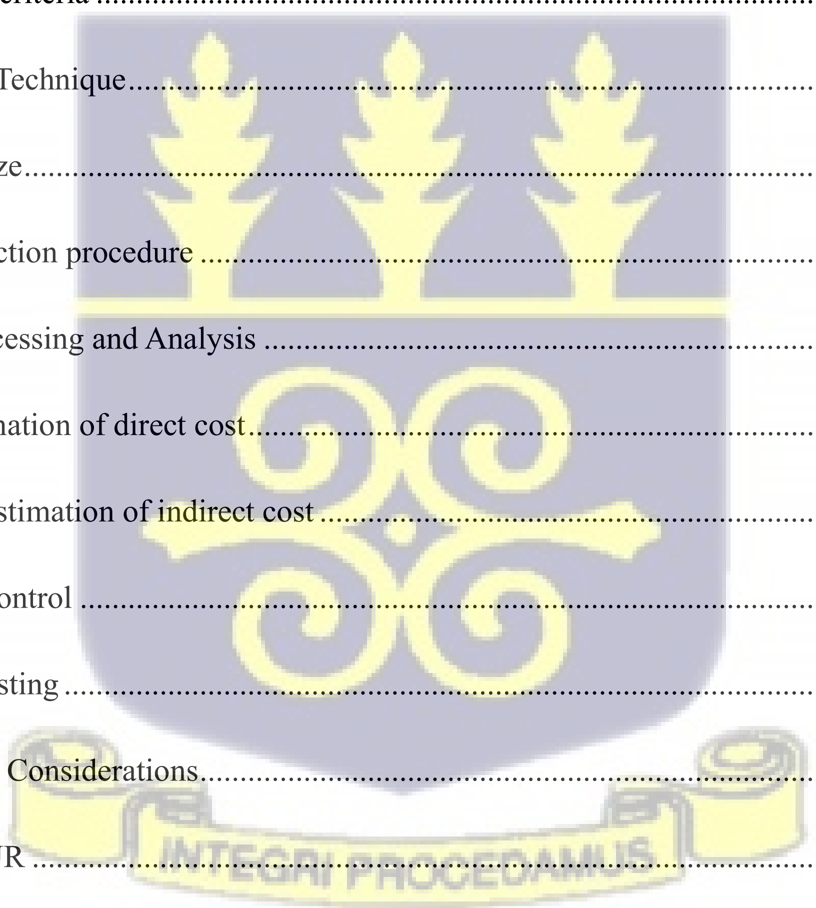

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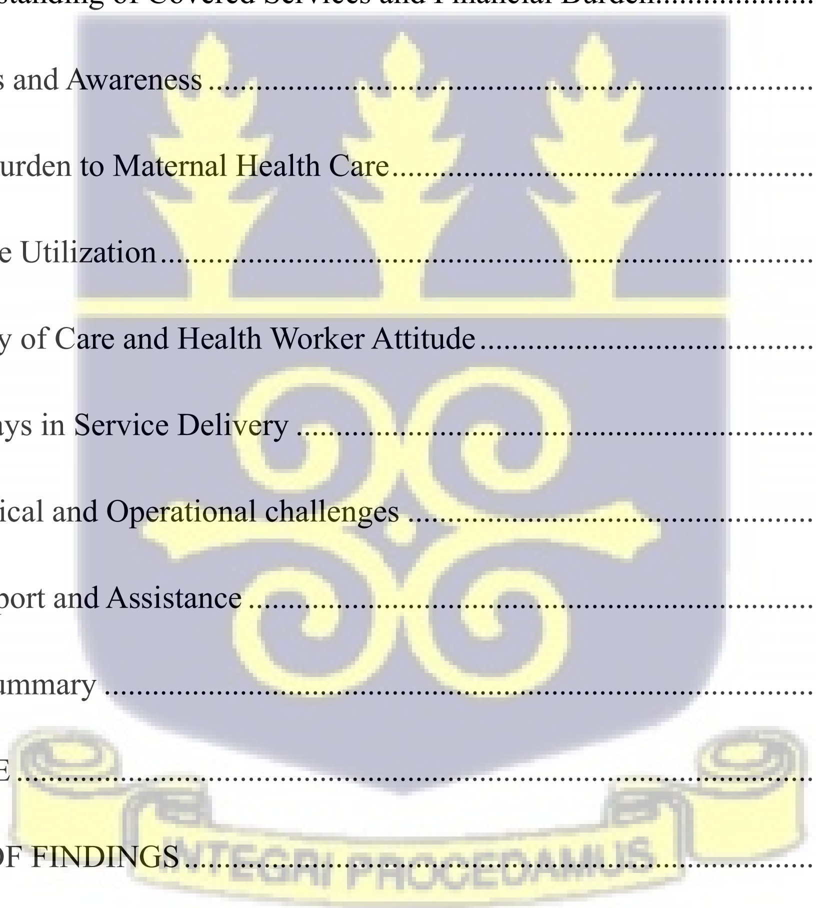

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LIST OF ABBREVIATION

ANC	-	Antenatal
CHPS	-	Community-based Health Planning and Services
FMHCP	-	Free Maternal Health Care Policy GHS
GHS	-	Ghana Health Service
GMHS	-	Ghana Maternal Health Survey
LMC	-	Lower Middle income
MHC	-	Maternal health care
NHIS	-	National Health Insurance Scheme.
OOP	-	Out of Pocket Payment
WHO	-	World Health Organization

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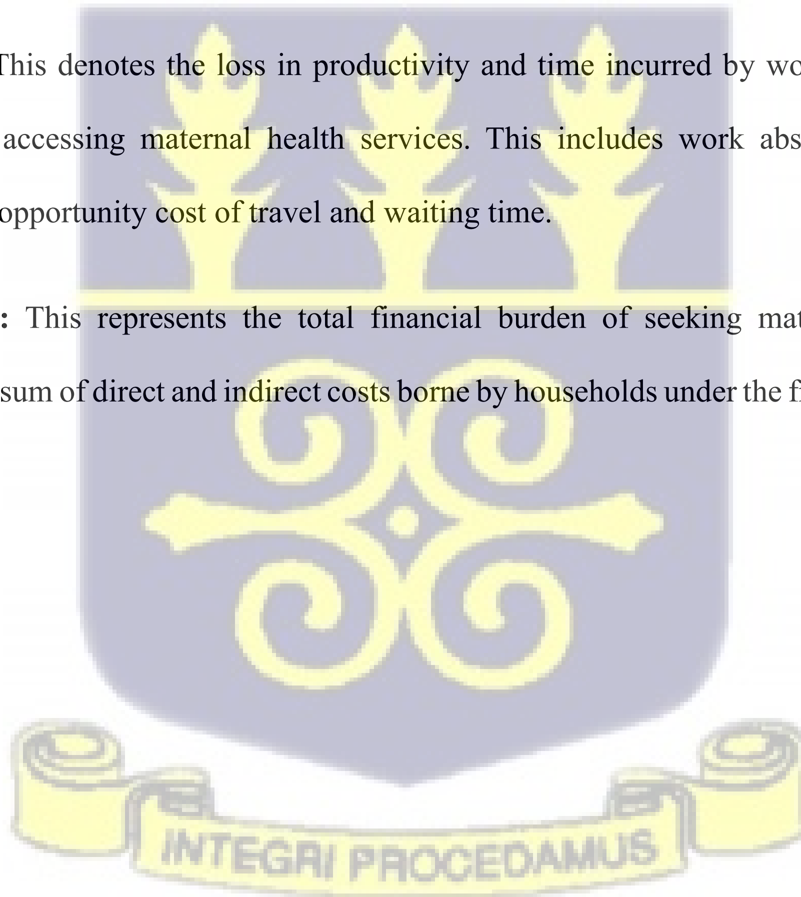
OPERATIONAL DEFINITION OF TERMS

Household: In this study, a household refers to a family or group of individuals living together and sharing resources, particularly income and food. It is the unit of analysis for assessing the financial burden of maternal health care.

Direct Cost: This operationally refers to the actual out-of-pocket payments made by women or their households for maternal health care, including medical expenses (consultation, laboratory tests, drugs, admission) and non-medical expenses (transportation, feeding, and maternity supplies).

Indirect Cost: This denotes the loss in productivity and time incurred by women or household members when accessing maternal health services. This includes work absenteeism, reduced income, and the opportunity cost of travel and waiting time.

Economic Cost: This represents the total financial burden of seeking maternal health care, calculated as the sum of direct and indirect costs borne by households under the free maternal health care policy.



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ABSTRACT

Background

To improve maternal health service utilization, Ghana introduced a free maternal health care policy (FMHCP) in 2008, which enrolls pregnant women in the National Health Insurance Scheme (NHIS) for free, covering antenatal, delivery and post-natal services. Despite the introduction of the free maternal care policy, many women still have to bear out-of-pocket costs when receiving maternal health care services.

Objective

To identify and categorize the types of household cost incurred by women seeking maternal health care services under the free maternal care policy, estimate the magnitude of these costs and associated financial burden on women seeking maternal health care and add on a few patients' experiences and health providers and managers perspectives on household cost in accessing maternal health care in Abuakwa South and Nsawam Adoagyiri Municipalities of the Eastern Region of Ghana.

Methods

A cross-sectional mixed-methods design was used. The quantitative study recruited 393 women receiving maternal healthcare in the two health facilities. A structured questionnaire was used to collect data from mothers. An interview guide was used to collect qualitative data. The qualitative data was collected from 12 mothers, 17 healthcare providers and 10 staff from the National Health Insurance Authority. Qualitative data analysis was done using Microsoft Excel. Thematic analysis

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was used to identify recurring themes and patterns in views on the free maternal healthcare policy. The cost data was analyzed descriptively using STATA 17.

Results

The total economic cost of maternal health care services incurred during the study was GHS231,737.07 (US$14,950.78). On average, each woman incurred GHS590 (US$38.00) per pregnancy cycle. Direct costs (medications, laboratory tests, transportation, and consumables) accounted for 53% of the total, while indirect costs (mainly productivity losses) constituted 47%. Productivity loss due to absenteeism emerged as the major cost driver, representing 42% of the total expenditure. On average, households spend between 5% and 6% of their monthly income on maternal health services, despite the policy's intent to eliminate financial burdens. Out-of-pocket expenses were mostly reported for laboratory tests, drugs, ultrasound scans, and transportation.

Conclusion

Although the FMHCP has significantly improved access and utilization of maternal health services, women continue to bear notable direct and indirect costs, undermining the policy's goal of financial risk protection. Persistent OOP payments highlight systemic gaps in implementation, including stock-outs, delays in reimbursement, and limited coverage of essential services.

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CHAPTER ONE

INTRODUCTION

1.0 Overview

This chapter provides a general overview of the study. It is organized under the following sub-sections: background to the study, problem statement, research objectives and questions, significance of the study, scope of the study, and organization of the study.

1.1 Background of the Study

Maternal health outcomes across the globe have improved significantly over the past few decades, yet the progress achieved has not been evenly distributed. In many low-income countries, complications arising from pregnancy and childbirth continue to be leading causes of mortality and morbidity among women of reproductive age (Danna et al., 2020). According to the Ghana Maternal Health Survey 2017, 10% of deaths among women aged 12-49 in Ghana are primarily linked to maternal risk factors with obstetric haemorrhage being the highest cause. The same mentioned that among deaths due to maternal causes, direct maternal causes accounted for 67%, indirect maternal causes captured 27% of maternal death and the remaining 6% were for unspecified maternal causes (Ghana Statistical Service, 2018). What makes this situation particularly concerning is that most maternal deaths are preventable when timely and effective interventions are available. Conditions such as hemorrhage, infection, hypertension, and obstructed labor can be successfully managed with appropriate medical care (Danna et al., 2020). However, beyond clinical interventions, socio-economic factors exert a powerful influence on maternal health. Poverty, low levels of education, and entrenched gender inequalities increase the likelihood

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of maternal mortality, with financial constraints consistently emerging as a central barrier to accessing timely care. Women in poverty are often unable to pay user fees or cover transportation costs, and these financial obstacles contribute to critical delays in seeking treatment.

The "Three Delays" model proposed by Thaddeus and Maine (1994) remains one of the most influential frameworks which explains how some specified barriers translate into maternal deaths (Apanga, Pimbinato, & Awoonor-Williams, 2018). It is applicable to the Ghanaian context, having been used in many preventable maternal deaths which are prevalent in low-resource settings, Ghana included. The first delay occurs at the household level, where families may postpone the decision to seek care because they cannot afford treatment or fail to recognize the severity of complications. It is generally known that Ghana's free Maternal Health Policy excludes the formal user fees and yet there is some indirect costs borne by women as they visit their respective health centers. A case in point is reported in the Eastern Regional Health Directorate Annual report of 2022 which states that women do spend on costs covering laboratory services, required delivery items, some prescribed medications which when coupled with limited household incomes, may cause these women to postpone the decision for immediate or timely medical care and only seek care when things escalate (Ghana Health Service, 2023). There have also been pockets of reports in Northern and rural Ghanaian communities where inability to mobilize funds quickly have led to fatalities among some pregnant women in the bid to seek medical assistance (Apanga, Pimbinato, & Awoonor-Williams, 2018). The second delay arises from difficulties in physically reaching a healthcare facility, frequently because of a lack of transport or insufficient funds for transportation. Transportation barriers remain one of the top causes or contributors to maternal deaths in Ghana, especially when there are clear indications of poor road networks and unreliable transport services. During labor, the woman in question would have to rely on some alternative or private transport

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which could be taxis or private rides and these usually do come at some premium given the emergency. It is worth noting that this additional cost may not be favorable for some women who may avoid same and put themselves at a greater risk using a motorcycle or other modes of transport in avoidance of extra cost. Some evidence from Eastern Region of Ghana belabors the phenomenon. Ghana Health Service's Eastern Regional Report cites that 43% of maternal deaths in the region are attributable to delays in reaching the chosen health facility with the conditionalities of choice being tiled to transport cost and transport availability. These and more according to the study raises eyebrows on the costs, specifically indirect costs that frequently determine survival outcomes of pregnant women (Ghana Health Service, 2023). The third delay relates to the receipt of adequate care upon arrival at a health facility, where poor quality of services or a lack of essential resources may hinder timely treatment. Financial constraints are most strongly linked to the first two delays, nevertheless the third exposes delay attributable to shortage of skilled midwives, inadequate emergency supplies, delays in instances of referrals and limited blood bank capacities among others. Evidence from rural Ghana, for example, has shown that even when maternal care services are officially free, families may delay seeking treatment because they cannot afford transportation to the hospital, tragically contributing to maternal deaths (Apanga & Awoonor-Williams, 2018). This highlights how indirect costs, even in the absence of direct user fees, remain life-threatening barriers.

Recognizing these challenges, the international health community has consistently emphasized the removal of financial barriers to maternal health care. Initiatives such as the Safe Motherhood Initiative and the Sustainable Development Goals (SDGs) have called for eliminating cost-related obstacles to ensure equitable access to care. Both WHO and UNICEF have strongly advocated the abolition of user fees for primary healthcare, especially in maternal, newborn, and child health

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services, as an essential pathway toward reducing maternal mortality. Beyond the well-documented effects of financial barriers on maternal health, these constraints also have significant implications for child health outcomes in Ghana. Delays in seeking antenatal care due to cost often result in missed opportunities for early detection of fetal complications, poor nutritional monitoring, and inadequate prevention of conditions such as anemia or congenital infections. Financially induced home deliveries further expose newborns to risks of birth asphyxia, sepsis, and delayed initiation of essential newborn care. Evidence from the Ghana Maternal Health Survey (2017) shows that children born to mothers who experienced barriers to skilled care are more likely to suffer neonatal complications and early mortality. Thus, addressing maternal financial barriers is simultaneously a critical intervention for safeguarding child survival and long-term wellbeing. In response, several countries in sub-Saharan Africa, including Ghana, Kenya, Senegal, and Burkina Faso, adopted various forms of free maternity care policies in the early 2000s (Agbanyo, 2020; Osei et al., 2025). Evidence from systematic reviews indicates that removing user fees has generally led to increased use of services, including facility-based deliveries and antenatal care attendance (Dzakpasu et al., 2014; Ravit et al., 2018, Ghana Statistical Service, 2018).

Despite these promising initiatives, however, the notion of "free" maternal health care often fails to reflect the full reality for women and their families. Studies show that a range of hidden and household-level costs persist, undermining the effectiveness of free care policies (Cho, 2024). Direct costs include payments for medications, medical supplies, and procedures not covered by the policy, while informal payments to health workers represent another significant financial burden (Wu et al., 2020). Indirect costs add further pressure, encompassing transportation expenses, accommodation for accompanying relatives, food during hospital stays, and childcare for children left at home (Sabermahani, 2021). Many families also opt for private health services,

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which are not covered under free maternal health programs, thereby compounding financial challenges (Wang et al., 2023). These additional costs are especially concerning low- and middle-income countries, where research has shown that they often exceed the value of services provided free of charge (Adu & Mulay, 2021; Fletcher, 2018).

In Ghana, the Free Maternal Care Policy introduced under the National Health Insurance Scheme (NHIS) in 2008 sought to eliminate financial barriers for pregnant women. While the policy has improved access, household-level costs continue to limit its effectiveness. Studies have found that transportation expenses and informal payments are common, creating obstacles that prevent many women from accessing timely and appropriate care (Cho, 2024). Antsaklis (2020) reports that two-thirds of women delivering in health facilities still had to pay for items such as disinfectants, soaps, and rubber pads, with these expenses consuming 5.6% of average monthly household income. Many women resorted to using their savings, borrowing money, or even selling assets to cover delivery-related costs. These findings underline that financial challenges persist even when health services are provided free of charge.

The consequences of these out-of-pocket payments are far-reaching. Transportation, childcare, and lost wages associated with facility-based deliveries place a heavy burden on families, particularly those with low incomes and those living in remote areas (Gyamera et al., 2020; Senanayake et al., 2020).

Beyond the financial strain, these costs can create psychological stress for pregnant women, leading to anxiety and delaying care-seeking (Cho, 2024). Such delays not only jeopardize maternal and neonatal health outcomes but also reinforce cycles of poverty and reduced productivity within households (Baye et al., 2020; Ralli, 2021).

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The gap between the promise of free maternal health services and the reality faced by women underscores the importance of assessing household costs within maternal care. While the policy framework in Ghana and other countries reflects a commendable step toward universal maternal health coverage, hidden expenses continue to erode equity and accessibility. This study therefore seeks to explore the extent and impact of household costs associated with accessing maternal health services in Ghana, with a particular focus on the Eastern Region. The selection of Abuakwa South and Nsawam Adoagyiri Municipalities is intentional as these two reflects different but similar maternal health contexts in the region. In Abuakwa South Municipality some reports have been made to support delays in care-seeking specifically linked to the transport and other financial barriers. Nsawam Adoagyiri which is the home of one of the major municipal hospitals reports insistent cases of hidden costs being borne by women visiting the facility. By identifying these barriers, the research aims to provide evidence to strengthen policies and create more sustainable and inclusive maternal healthcare systems.

1.2 Problem Statement

Although Ghana introduced the Free Maternal Health Care Policy (FMHCP) in 2008 with the intention of eliminating financial barriers to maternity care, the reality for many women demonstrates a persistent gap between policy design and practice. The FMHCP was launched under the National Health Insurance Scheme (NHIS) to ensure that no pregnant woman would be denied access to essential maternal health services due to financial constraints. In principle, this policy was expected to reduce maternal mortality by addressing one of the most significant obstacles to care cost. The covers included all essential maternal health costs seen in expenses on antennal care, specialized delivery, emergency delivery or post-birth health support. The policy further stressed discouraging out-of-pocket payments which could serve as financial barriers to an effective and

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readily available maternal health care. In essence, these did show up in two ways, namely, where women make payments for services or items that should have been covered but are being charged to same or the payments these women have to bear given that they fall outside the scope of the FMHCP but are relevant and needed in ensuring the maternal care is effective. However, growing empirical evidence suggests that the promise of "free" care remains elusive, as women continue to bear hidden financial and opportunity costs that undermine the effectiveness of the initiative.

Several studies illustrate this paradox. For instance, Dalinjong et al. (2018) highlight that out-of-pocket payments for drugs, medical supplies, and services not covered by the FMHCP still occur frequently. These costs, though seemingly small, can exert significant pressure on household budgets, particularly for low-income families, and can push households into debt or poverty. Antsaklis (2020) in a study conducted in Northern Ghana with 245 women, revealed that two-thirds of mothers who delivered in health facilities faced expenses not covered by NHIS, including disinfectants, soaps, and rubber pads. In some cases, the women incurred costs for medication and supplies that were either not available at the facility or were in short supply. Where coverage was not in place, payments for basic items such as soaps, pads, disinfectants among others were burdens for these women. On average, these costs represented 5.6% of monthly household income. Alarmingly, 75% of women relied on savings, 6% borrowed money, and 19% were forced to sell assets to cover delivery-related costs. These findings underscore that the policy, while well-intentioned, still leaves women financially vulnerable and undermines its own equity objectives whilst leading to questions on the policy's implementation shortfalls and stated systematic inefficiencies that undermine the policy's credibility.

The consequences of these out-of-pocket payments are profound. Out-of-pocket expenses act as barriers to service utilization, particularly among the poorest women. The captured indirect costs

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by Apanga and Awoonor-Williams (2018) included transportation to the health centres, food cost, accommodation where needed for birth companions and some form of opportunity cost where productive activity is put on hold for dependents, client or other persons who may be providing some form of help during the period which can be further exacerbated with long wait hours at the facility. When women perceive maternal health services as costly, they are more likely to delay or forego antenatal visits, opt for home deliveries, or delay seeking emergency obstetric care (Dalinjong et al., 2018). This aligns with the "Three Delays" model proposed by Thaddeus and Maine (1994) which conceptualizes how financial, logistical, and systemic barriers interact to cause preventable maternal deaths. The first delay, the decision to seek care, remains a challenge under the FMHCP because women often weigh the perceived costs of facility-based delivery against household financial realities. Even when direct service fees are abolished, indirect costs such as transportation, food, and accommodation during hospital stays continue to discourage timely care-seeking (Apanga & Awoonor-Williams, 2018). Thus, increasing maternal deaths is not only attributable to the identified medical inadequacies that may exist in some cases at the health facilities but a deeper account of economic constraints in the broader environment.

The situation in Ghana reflects a broader problem observed in other low- and middle-income countries. For example, in Ethiopia, Chewaka (2024) found that despite policies for free maternal services, families still incurred significant household costs, creating economic burdens that diminished the policy's intended benefits. This category falls under the informal or under-the-table payments that are made to cover costs within the health facilities due to some bureaucratic bottlenecks and operational inadequacies which lead some families to make some unofficial payments to expedite care. This phenomenon although not openly discussed, exists in pockets of cases in Ghana and these further blurs the line between covered and non-covered expenses.

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Similarly, Dahab and Sakellariou (2020) highlight transportation, informal payments, and systemic economic constraints as major obstacles to maternal care across sub-Saharan Africa. Anafi (2020) adds that even in Ghana, the continued existence of additional financial costs under a supposedly free maternal care system remains a critical deterrent to access, especially for women in rural and economically disadvantaged communities. These findings point to the persistence of structural inequities that compromise maternal health outcomes despite well-formulated policy frameworks.

At the time of this study, there remains limited empirical data on the magnitude and specific components of household costs incurred under the FMHCP in the Eastern Region of Ghana. Most studies have concentrated on Northern Ghana or broader national-level analyses, leaving a gap in context-specific evidence for other regions. Yet, understanding the costs borne by households is critical because maternal health outcomes are shaped not only by the availability of free services but also by the out-of-pocket payments that determine whether women access and use these services effectively. Without targeted empirical data, policymakers risk underestimating the financial challenges women continue to face and, by extension, failing to design interventions that truly eliminate barriers to maternal health care.

This study therefore seeks to bridge that gap by examining the actual household costs incurred by women accessing maternal health services under the FMHCP in the Eastern Region. It will focus on identifying the types of costs, both direct and indirect that persist despite the policy, estimating their magnitude, and exploring the underlying factors that contribute to their persistence. By doing so, the study aims to provide evidence-based insights that can inform more comprehensive maternal health strategies. Ultimately, addressing these out-of-pocket payments is essential not only for improving access to maternal health services but also for ensuring the policy's equity goals are fully realized, thereby contributing to reductions in maternal morbidity and mortality in Ghana.

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1.3 Objectives of the Study

1.3.1 General objective

To assess the household costs incurred by women seeking maternal health care services under the free maternal care policy in Abuakwa South and Nsawam Adoagyiri Municipalities in the Eastern Region of Ghana.

1.3.2 Specific objectives

i. To identify and categorize the types of household cost incurred by women seeking maternal health care services under the free maternal care policy in Abuakwa South and Nsawam Adoagyiri Municipalities under the free maternal health care policy.
ii. To estimate the magnitude of these household costs and its financial burden on women seeking maternal health care under the free maternal health care policy.
iii. To explore patients' experiences and health providers and managers perspectives on household cost in accessing maternal health care in Abuakwa South and Nsawam Adoagyiri Municipalities.

1.4 Research Questions

The following research questions were considered in this study:

i. What types of household cost are incurred by women seeking maternal health care services under the free maternal care policy in Abuakwa South and Nsawam Adoagyiri Municipalities under the free maternal health care policy?

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ii. What is the magnitude of these household costs and how do they contribute to the overall financial burden incurred by women seeking care under the free maternal health care policy?

iii. What are the experiences of health care providers, and patients on additional cost when accessing maternal health care in Abuakwa South and Nsawam Adoagyiri Municipalities?

1.5 Significance of the Study

The significance of this study lies in its potential to reveal the financial barriers that persist despite the existence of Ghana's free maternal health care policy. Although the policy was designed to remove cost-related obstacles to maternal health, families continue to encounter substantial financial burdens that negatively influence access to care (Agyemang et al., 2021). Understanding the household costs associated with maternal health care is crucial, as it provides valuable insights for mothers and their families. Such knowledge can empower them to make informed decisions about seeking care, enabling expectant women to prioritize maternal health without being blindsided by unforeseen expenses (Dahab & Sakellariou, 2020).

This study also has important implications for health care providers, whose role in maternal health service delivery is pivotal. By uncovering the specific financial barriers faced by women, providers will be better positioned to tailor their services and align them with the socioeconomic realities of their patients. Enhanced awareness of direct and indirect payments will not only strengthen patient-provider communication but also create an environment where women feel comfortable voicing financial concerns and accessing essential care (Hodin, 2018).

For policymakers and government agencies, the study offers evidence that can inform more equitable health policy decisions. As those entrusted with ensuring fair access to maternal care,

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policymakers stand to benefit from insights into the additional costs women face in municipalities such as Abuakwa South and Nsawam Adoagyiri (Katon, 2021). The findings can highlight areas requiring adjustment within the free maternal health policy, guiding interventions that reduce out-of-pocket-payments and ultimately improving maternal health outcomes across diverse communities.

Non-governmental organizations (NGOs) and advocacy groups are also key stakeholders in this research. The evidence generated can serve as a powerful advocacy tool to push for reforms that address the hidden financial challenges of maternal care. Armed with these insights, NGOs can mobilize resources, strengthen community initiatives, and amplify awareness campaigns aimed at reducing maternal health care costs and expanding access (Pepreh, 2023). In the long run, such advocacy could generate greater support for maternal health programs and services, directly benefiting women and their households.

Finally, this research contributes to the scholarly discourse on maternal health financing and access in Ghana. It expands the knowledge base on the economic realities faced by women under the free maternal health care policy, offering a foundation for further academic inquiry. Future studies can build upon these findings to explore additional dimensions of maternal health care delivery, while academic institutions can use this work as a reference point for teaching, policy debates, and applied research. By providing context-specific evidence, this study advances both practical interventions and theoretical understanding, ultimately supporting the broader goal of improving maternal health outcomes for Ghanaian women and their families.

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1.6 Scope of the Study

The study is focused on two municipalities in Ghana's Eastern Region: Abuakwa South and Nsawam Adoagyiri. These municipalities are the primary subjects of investigation, where data collection and analysis were done. By narrowing the geographic scope to these municipalities, the study provided insights relevant to the local context, enabling a thorough examination of maternal health care access and associated expenses within these municipalities. In terms of context, the study explored the household costs of mothers accessing maternal health services under the free maternal health care policy in the selected municipalities. This includes both direct out-of-pocket payments and indirect costs that contributes to the overall financial strain on women seeking such care. The study focused on mothers accessing maternal health care through surveys while an exploratory design (through interview) was used to understand in detail the perspective of women and health care providers as well on additional costs.

1.7 Organization of the Study

This study is structured into six chapters to ensure a logical and coherent presentation of the research process and findings. Chapter One introduces the study by providing the background and context, highlighting the statement of the problem, research objectives and questions, the significance of the study, as well as the scope and organization of the work. Chapter Two is devoted to the review of related literature. It examines scholarly works on household costs in the context of free maternal health care, situating the study within existing knowledge and debates. This chapter also presents the conceptual framework that underpins the research and provides a summary of the literature reviewed, identifying gaps that this study seeks to address. Chapter Three describes the research methodology. It outlines the study design, study area, inclusion and exclusion criteria, sampling techniques, and sample size. The chapter further details the procedures and instruments

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used in data collection, approaches to data analysis, pretesting activities, and the ethical considerations that guided the conduct of the study. The subsequent chapters present the results and their interpretation. Chapter Four focuses on the presentation of the findings, while Chapter Five provides a discussion of these results in relation to existing literature and theoretical perspectives. Finally, Chapter Six concludes the study by summarizing the main findings, drawing conclusions, and offering recommendations for policy and practice.

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CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Chapter two of the study presents an extensive exploration of existing literature relevant to the research topic. The aim of this literature review is to provide a comprehensive understanding of the context, theories, empirical evidence, and gaps in knowledge surrounding the assessment of additional costs associated with accessing free maternal health care. Through critical analysis of previous studies, theoretical frameworks, and empirical findings, this chapter sought to establish a foundation upon which the current research could build and contribute to the advancement of knowledge in this field.

2.1 Cost of Maternal Health Care in Low and Middle-income countries

Financial barriers remain one of the most persistent obstacles to maternal health service utilization in low- and middle-income countries (LMICs). The costs associated with pregnancy and childbirth in these contexts are often substantial and multifaceted, encompassing direct fees for services, payments for medicines and diagnostic tests, informal charges, transportation expenses, and opportunity costs in the form of lost time and income (Banke-Thomas et al., 2021, 2009; Gabrysch & Campbell, 2009). Evidence shows that out-of-pocket (OOP) expenditures tend to increase as women progress through the continuum of care from antenatal visits to delivery and postnatal care particularly when complications arise or a caesarean section is required (Banke-Thomas et al., 2021). These costs are often higher in private facilities compared to public ones, with medicines

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and diagnostics identified as the most significant cost drivers across antenatal and postnatal care (Banke-Thomas et al., 2021).

Beyond the immediate financial strain on households, the cost of maternal health care in LMICs is also a critical public health concern, directly influencing whether women access life-saving interventions. Even in contexts where official user fees have been abolished, women continue to incur hidden expenses such as purchasing supplies, making informal provider payments, or covering transport costs (Banke-Thomas et al., 2021). These "out-of-pocket" perpetuate financial hardship, often pushing vulnerable families deeper into poverty or discouraging them from seeking care altogether. Such realities stand in direct contrast to global commitments under the Sustainable Development Goals to achieve universal access to maternal healthcare and to "leave no one behind."

In response to these challenges, many LMICs have introduced free maternal health policies over the past two decades to remove financial barriers. Countries across sub-Saharan Africa and South Asia have sought to provide free antenatal visits, skilled birth attendance, emergency obstetric care, and postnatal services in public facilities (Witter et al., 2009). Evidence from these policy shifts is compelling. In Kenya, the introduction of free maternity services in 2013 was associated with an immediate 20% increase in normal deliveries and nearly a 30% increase in caesarean sections in public hospitals (Orangi et al., 2021). Similarly, countries such as Burundi and Sierra Leone witnessed sharp increases in maternity service uptake after abolishing fees, highlighting the extent of suppressed demand created by financial constraints.

Ghana joined this movement in July 2008 when it rolled out the Free Maternal Healthcare Policy (FMHCP) under the National Health Insurance Scheme (NHIS). The policy extended free

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healthcare to pregnant women from conception until six weeks postpartum and included neonatal care for babies up to 90 days old (Alatinga et al., 2024). The benefit package covered a wide range of services, including antenatal consultations, hospitalizations, laboratory tests, and medications. While this marked a significant step toward universal access, the policy did not cover ancillary costs such as transportation or non-medical items, leaving gaps in protection (Alatinga et al., 2024).

Although evidence suggests that the FMHCP has improved utilization of services particularly facility-based deliveries and antenatal attendance (Adawudu et al., 2024), the notion of "free" care has proven incomplete in practice. Women and their families continue to bear out-of-pocket costs due to systemic and implementation challenges. Stock-outs of essential drugs and consumables often force women to purchase items from private pharmacies, while diagnostic services like ultrasound scans are frequently excluded from NHIS coverage (Alatinga et al., 2024; Dalinjong et al., 2018). Informal charges by providers and transportation costs to higher-level facilities further add to the burden. For instance, Dalinjong et al. (2018), reported that pregnant women in northern Ghana still paid an average of GHS17.5 (≈US$8.60) during pregnancy despite the FMHCP, with more than 60% relying on personal savings and 22% selling assets to cover these expenses.

These findings underscore a critical tension between policy intent and lived realities. While eliminating user fees has undeniably expanded access and improved maternal health outcomes, persistent out-of-pocket payments undermine the policy's equity and effectiveness. Addressing these gaps requires not only adequate financing and robust supply chain systems but also stronger oversight to eliminate unofficial charges and greater awareness among women about their entitlements. Without such measures, free maternal healthcare risks remaining "free in name only," leaving vulnerable families exposed to financial risks that hinder timely and equitable access to essential care (Alantinga et al., 2024; Orangi et al., 2021).

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2.2 The Free maternal health care in Ghana

Free maternal health care initiatives have emerged as a pivotal strategy to enhance accessibility to prenatal, delivery, and postnatal services, particularly in low- and middle-income countries (LMICs) striving for universal health coverage (Azaare et al., 2020). Countries such as Ghana, Kenya, and India have adopted such policies, often by exempting pregnant women from user fees associated with these vital services (Seki, 2019).

The impact of these policies, however, is multifaceted. Research indicates a rise in health care service utilization, with an increase in facility-based deliveries among women (Dalinjong et al., 2018). Nevertheless, obstacles persist; shortages of essential medications and equipment, coupled with inadequate healthcare infrastructure, can impede the efficacy of these initiatives (Dalinjong et al., 2018).

Informal payments also pose a barrier, despite waived user fees (Azaare et al., 2020). The effectiveness of free maternal healthcare policies hinges on the strength of the existing healthcare system. A robust health infrastructure, adequate resources, and effective community awareness campaigns are essential for maximizing their impact (Seki, 2019). Policies implemented without proper planning and resource allocation may struggle to yield improvements in maternal health outcomes (Seki, 2019). Experts advocate for a comprehensive approach to strengthening these policies. This entails strengthening health systems, securing sufficient funding, and addressing supply-side constraints such as staff and equipment shortages (Seki, 2019). Additionally, ongoing monitoring and evaluation are crucial for identifying and addressing implementation challenges, facilitating policy refinement over time (Abredu, 2020).

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In Ghana, strides have been taken to curb maternal and infant mortality rates through initiatives such as the Free Maternal Care Policy, Community-based Health Planning Services, and National Health Insurance Policy. These endeavors have enhanced financial accessibility to maternal and obstetric health services, facility-based deliveries, and antenatal care (Owusu, 2023). Nonetheless, obstacles persist, impeding maternal and child health outcomes, including deficient infrastructure, human resource shortages, limited access to essential medications, substandard quality of care, and entrenched cultural beliefs. Financial constraints pose a significant barrier to accessing maternal and child health services, particularly in rural regions (Owusu, 2023).

The Free Maternal Health Care Policy (FMHCP) in Ghana, launched in July 2008 under the National Health Insurance Scheme (NHIS), aimed to enhance maternal health outcomes by eliminating financial barriers for pregnant women whilst aiming to accelerate the progress towards reducing maternal mortality and expanding financial risk protection for pregnant women (Azaare et al., 2020). All expectant mothers qualify for free registration with the NHIS, granting them access to comprehensive maternal healthcare services throughout pregnancy, childbirth, and up to three months postpartum (Azaare et al., 2020). Historically, the policy emerged in response to evidence that user fees and escalating out-of-pocket payments significantly restricted access to skilled delivery and antenatal services, particularly among poor and rural women (Adu & Mulay, 2021; Ameyaw et al., 2021). Its introduction marked a major shift toward universal maternal health coverage by expanding entitlement to include antenatal visits, skilled delivery, emergency obstetric care, caesarean sections, postnatal care, and treatment of pregnancy-related complications (Akazili et al., 2018; Twum et al., 2018).

Encompassing a full benefits package, including prenatal, delivery, and postnatal care, along with requisite medical interventions related to maternal health, the policy is implemented through NHIS-

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accredited facilities as well as in all government hospitals, quasi-government facilities and accredited private health facilities nationwide. It has been well-received by pregnant women and their communities, fostering increased utilization of maternal health services and ultimately striving to diminish maternal mortality rates and enhance overall maternal well-being. Coverage is not limited to Ghanaian nationals as any pregnant woman in the country is entitled to being covered under the policy regardless of nationality (Azaare et al., 2020). According to Orangi et al. (2021), Ghana distinguishes itself from other sub-Saharan African countries with this policy since other jurisdiction has theirs limited to nationality or the ability to pay insurance premiums.

Despite these endeavors, a considerable number of women, particularly those from impoverished, uneducated, and rural backgrounds, still struggle to adhere to World Health Organization recommendations for antenatal care, skilled birth attendance, and postnatal care within 24 hours. Again, despite this wide coverage, several exclusions and operational limitations persist. For instance, NHIS does not cover certain laboratory tests, non-essential drugs, consumables, or personal delivery items such as disinfectants, sanitary pads, gloves, and detergents (Akazili et al., 2018). Additionally, the FMHCP does not include transportation to health facilities, food for accompanying relatives, or accommodation for birth companions, leaving women to shoulder substantial indirect costs (Apanga & Awoonor-Williams, 2018; Banke-Thomas et al., 2021).

These policy boundaries have significant implications for implementation. Evidence consistently shows that while the FMHCP formally abolishes direct service fees, pregnant women still incur out-of-pocket payments due to medicine stock-outs, informal charges, and bureaucratic bottlenecks that compel them to purchase basic supplies outside health facilities (Abredu et al., 2023; Alatinga et al., 2024). Akazili et al. (2018) describe these costs as symptomatic of “street-level bureaucratic discretion,” whereby frontline health workers, facing operational constraints, implicitly transfer

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costs to patients. Studies also demonstrate that indirect costs especially transport remain a major obstacle to service utilization, particularly in rural districts (Apanga & Awoonor-Williams, 2018; Chewaka, 2024). This has resulted in persistent inequities in maternal health access despite the elimination of formal user fees (Mshana et al., 2021; Azaare et al., 2024).

Socio-cultural beliefs occasionally deter women from accessing these services (Ameyaw et al., 2021). To attain the Sustainable Development Goal target of 70 maternal deaths per 100,000 live births by 2030, Ghana must ensure that women can access the complete spectrum of maternal healthcare services irrespective of their location, socio-economic status, or demographic characteristics (Ameyaw et al., 2021).

2.3 Cost of free maternal health care policy

The concept of additional costs within the framework of the free maternal care policy pertains to the indirect expenditures incurred by pregnant women when accessing ostensibly "free" maternal healthcare services (Dalinjong et al., 2018). Despite the policy's objective of offering essential maternal healthcare services without imposing direct charges on patients, there exist ancillary expenses that women and their families must shoulder (Oyugi et al., 2021). These expenses, not immediately evident or explicitly covered by the government or healthcare facilities, can include out-of-pocket payments (OOP) that hinder poor households from utilizing maternal health services, including skilled childbirth attendance (Chewaka, 2024). Poor households are prone to forgoing critical health services when confronted with direct OOP payments, potentially exacerbating their financial vulnerability and pushing them deeper into poverty as a consequence of seeking healthcare services (Dalinjong et al., 2018). For the purposes of the investigation, two primary categories of additional costs are examined in subsequent subsections.

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2.3.1 Direct out-of-pocket payments

Direct costs encompass a spectrum of expenses encountered by expectant mothers enrolled in free maternal healthcare programs, notwithstanding the exemption of core medical fees (Dalinjong et al., 2018). While certain medical expenses are waived, instances persist where specific medications, medical supplies, or procedures remain uncovered. For instance, particular pain relievers, specialized prenatal supplements, or additional ultrasound scans exceeding a predetermined threshold may necessitate out-of-pocket payments (Shawel, 2023). Beyond these additional costs, non-covered services present an additional layer of financial challenge within free maternal health policies (Wu et al., 2020). These policies often impose limitations or exclusions concerning specialized treatments or elective procedures, such as genetic testing or planned caesarean sections (Mshana, 2021). Although free maternal health policies typically priorities basic maternal care, the omission of these services can impose substantial financial burdens on women requiring or opting for additional medical interventions during pregnancy and childbirth (Oyugi et al., 2021).

For instance, essential diagnostic procedures like genetic testing, crucial for identifying potential health risks to both mother and foetus, are not covered under free maternal health policies, necessitating out-of-pocket payments for these critical services (Mshana, 2021). Similarly, elective procedures such as planned caesarean sections, medically necessary in certain cases, are also excluded from coverage, leaving women solely responsible for the full financial burden of these procedures (Gross, 2020).

Furthermore, essential medical supplies and ancillary services are inadequately covered under free maternal health policies, further exacerbating the financial strain on pregnant women. For instance, blood tests, pivotal for diagnosing and monitoring various medical conditions during pregnancy,

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are not fully covered, resulting in additional expenses for women seeking prenatal care (Mshana, 2021). Additionally, essential delivery supplies like surgical equipment, anesthesia, or specialized instruments are also excluded from coverage, leaving women to independently bear these costs should they require them during childbirth (Gross, 2020). Moreover, the absence of coverage for specialized treatments or elective procedures curtails women's ability to make informed decisions about their reproductive health and disproportionately affects those with complex medical needs or high-risk pregnancies (Gross, 2020).

Furthermore, informal payments to healthcare providers represent a discreet yet significant dimension of additional costs. While delicate in nature, it is crucial to recognize that within certain healthcare systems, informal payments are exchanged directly for enhanced care or expedited services (Wagstaff, 2020). Although not universally prevalent, such transactions can impose a notable financial strain on expectant mothers, compounding the challenges of accessing maternal healthcare services. Addressing these multifaceted expenses is imperative to ensure equitable access to comprehensive maternal healthcare without unduly burdening pregnant women and their families (Wagstaff, 2020).

The financial repercussions of non-covered services within free maternal health policies can be particularly onerous for women hailing from low-income backgrounds or marginalized communities. For these individuals, the inability to afford essential medical services and supplies can lead to delayed or inadequate care, thereby exacerbating the risk of adverse maternal and neonatal health outcomes (Mshana, 2021).

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2.3.2 Indirect out-of-pocket payments

Apart from the direct expenses linked with childbirth, expectant mothers face a considerable financial burden due to indirect costs, which are not directly tied to maternal care itself but contribute to the overall cost of receiving maternal care (Sabermahani, 2021). Often overlooked, these expenses can strain resources and impact access to quality maternal healthcare (Mshana, 2021). One significant indirect cost is transportation, encompassing the expenses incurred while travelling to and from numerous prenatal appointments, the delivery itself, and postpartum checkups. Some expectant mothers rely on personal vehicles, incurring gas expenses for each trip, while others opt for public transportation, which, although potentially cheaper, involves fares that accumulate over time. Research highlights situations where car rentals become necessary, further inflating the total cost (Girardi, 2023). The burden of transportation costs is particularly acute for mothers residing in rural areas, where healthcare facilities are often situated farther away, necessitating longer and potentially more expensive trips. This exacerbates the challenge for mothers in rural areas, who may already have limited access to quality healthcare, making essential prenatal and postpartum care even more difficult to access (Girardi, 2023).

Furthermore, mothers residing in rural areas or those facing complex pregnancies necessitating extended hospitalization encounter an added financial burden in securing lodging close to the medical facility (Girardi, 2023). This involves either renting accommodation, arranging temporary housing for a caregiver, or bearing additional expenses associated with prolonged hospital stays. These circumstances place considerable financial strain on families, particularly those with limited financial resources (Anafi, 2020). Additionally, expectant mothers and their potential companions during hospitalization require sustenance, leading to the purchase of meals or snacks to supplement hospital provisions, thereby increasing the overall cost of maternity care.

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The indirect expenses associated with accessing maternal healthcare services, though often underestimated, can exert a substantial financial burden on expectant mothers (Sabermahani, 2021). Despite the exemption of direct medical fees under free maternal care policies, the cumulative costs of transportation, accommodation, sustenance, and potentially seeking private care can become overwhelming for families, particularly those already grappling with economic challenges (Anafi, 2020). This financial strain compels expectant mothers to make difficult choices, such as delaying or entirely forgoing essential prenatal care or resorting to deliveries outside of qualified healthcare facilities. Consequently, acknowledging and addressing these indirect costs is crucial to ensuring equitable access to quality maternal healthcare for all women, regardless of their socioeconomic status. Efforts to alleviate these financial barriers are imperative to prevent any woman from having to compromise her health or that of her baby due to financial constraints (Anafi, 2020).

2.4 Theoretical Review

2.4.1 Social determinants of health (SDOH)

The theory of SDOH posits that social and economic factors wield significant influence over health outcomes (Dalinjong et al., 2018). This idea is especially important when looking at how well free maternal healthcare programs work and how much they cost. It highlights how factors like social and economic background can create extra, unseen challenges that make it harder for people to use these programs. Numerous studies consistently underscore the profound impact of SDOH on access to and utilization of maternal health services, even in contexts where services are provided free of charge (Crear-Perry, 2021). These impacts often manifest as hidden expenses, encompassing transportation to appointments, arrangements for childcare for existing children, and lost wages due to missed workdays (Dagher, 2022).

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The burden of these concealed costs disproportionately affects women from lower socioeconomic strata (Merga, 2019). They may lack the means to afford reliable transportation to healthcare facilities, especially in geographically dispersed areas. Additionally, childcare can pose a significant challenge, particularly for mothers with multiple children. Furthermore, taking unpaid leave to attend prenatal and postnatal check-ups can exact a severe financial toll on women in low wage employment, forcing them to navigate a difficult choice between prioritizing their health and maintaining their income (Amissah, 2020).

Understanding these additional costs, as explained by SDOH, is pivotal for enhancing access to maternal healthcare and ensuring the effectiveness of programs (Chewaka, 2024). Research suggests that targeting these barriers through specific strategies can foster more equitable utilization. For instance, providing transportation vouchers or arranging transportation services can alleviate the burden of reaching appointments. Similarly, offering on-site childcare at healthcare facilities can mitigate childcare concerns for mothers. Furthermore, implementing policies that safeguard income or provide wage replacement for women needing to take time off for medical appointments can alleviate the financial pressure associated with prioritizing their health (Merga, 2019).

While the removal of cost barriers represents a pivotal stride toward enhancing maternal health outcomes, the Social Determinants of Health (SDOH) theory urges us to delve deeper than mere access (Azaare, 2020). Heightened service utilization does not inherently guarantee improved health outcomes for all socioeconomic strata. Fundamental questions persist: Does heightened service utilization translate into enhanced health outcomes for mothers and infants across diverse socioeconomic backgrounds? Does the quality of care ameliorate with heightened utilization, resulting in reductions in maternal and infant mortality/morbidity rates? Further investigation is

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crucial to fully understand the situation and determine if removing financial barriers alone is sufficient. It is imperative to investigate whether other factors within the healthcare system and broader social milieu, such as provider bias or the absence of culturally competent care, wield a more substantial influence in shaping health outcomes for mothers and infants from varying socioeconomic backgrounds.

However, the SDOH theory is not devoid of criticism. Some experts contend that it understates the role of individual choices and healthful behaviors (Crear-Perry, 2021). They highlight that even within disadvantaged circumstances, healthful behaviors can still positively impact health outcomes. Additionally, disentangling the precise impact of SDOH in research can pose challenges due to other variables like local healthcare infrastructure and the availability of qualified healthcare providers (Dagher, 2022).

Despite these limitations, SDOH furnishes invaluable insights for understanding and devising more holistic maternal health programs. By recognizing the social and economic determinants of health, policymakers and healthcare practitioners can formulate programs that address the root causes of health disparities and forge a more equitable healthcare system for all mothers and infants (Crear-Perry, 2021). By incorporating the SDOH theory, this study can transcend mere measurement of direct costs. It can furnish a more nuanced understanding of the genuine financial burden associated with "free" maternal healthcare and its ramifications for women, families, and society at large. This understanding can guide policymakers and healthcare providers in crafting interventions that tackle these concealed costs and foster equitable access to quality maternal healthcare services, thereby fostering enhanced health outcomes for all.

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2.5 Empirical Review

2.5.1 Household cost incurred by women seeking maternal health care services under the free maternal care policy

Free maternal health care is important for the health of mothers and their children. But the cost for accessing these services can be steep, especially for women living in low-resource environments. Multiple studies have explained this household expenditure of women availing maternal health facilities, which include transportation costs, lodging, childcare and lost productivity (personal, because time is spent travelling, waiting and, if delivery complications arise). These financial burdens serve as access barriers that lead to delayed or forgone care, negatively impacting maternal health outcomes.

For many women, particularly those in rural or isolated communities, the costs of transportation are a significant obstacle. Perera et al. (2012) reported 90.3% of 466 pregnant women had health conditions during pregnancy impacting their daily life, and many had high transport costs. These consisted of fuel costs, public transport fares and vehicle maintenance which weighed heavily on homes. Similarly, Akin et al. (2017) indicated that transport was among the highest of out-of-pocket costs for pregnant women in sub-Saharan Africa. Apart from this, gasoline or fare from a taxi was expensive for women who traveled a long-distance to obtain health facilities and they all put a major burden on the household budget and finances. In Nigeria, Fabamigbe et al. (2020) confirmed that women were at greater risk of facing problems with transportation who lived more than 5 km from a health facility, resulting in the delay or failure to receive timely medical attention. Together, these studies highlight transportation as a timely issue in how it can affect mothers' access to free health care, especially in locations that are a considerable distance away from facilities.

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Women from remote areas often have to spend the night near medical facilities, adding to their costs. Witter et al. (2017) noted this problem in Sierra Leone, where women traveling long distances had to somehow pay for both accommodation and possible transportation costs (that were sometimes unpredictable). Again, Leonard et al. (2018) in Kenya reported similar findings, finding that women with complications during pregnancy or childbirth were particularly susceptible to needing extended care that required them to pay for lodging. These studies show that accommodation costs can decrease women's ability to seek free maternal care, especially when household resources are already strained. Affordable, accessible accommodation close to healthcare facilities is vital to increasing access to care for women in remote areas.

The high cost of childcare also weighs heavily on the finances of mothers with young children. A 2024 Center for American Progress report explains in detail how many women lose wages or miss work in the process of getting their children to doctors' appointments when childcare is not affordable. In some instances, women also work fewer hours or leave their workplaces entirely because they are unable to find consistent childcare. Owusu-Addo (2018) studied this in Ghana, where women found it difficult to secure childcare to attend antenatal and postnatal care appointments. In addition, some women paid for temporary caregivers or depended on family members to take on caregiving, paying opportunity costs as a result. Because childcare was intrinsically so expensive, this kept women from taking maternal health services they needed, resulting in adverse health outcomes, the study found. These findings highlight how affordable childcare can promote access to maternal health care.

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The continued high maternal mortality rates and lack of access to maternal health care, particularly in low-resource settings, suggest that financial barriers (e.g., transport, accommodation, ad childcare costs) continues to remain significant for women. These costs could lead to postponing

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or avoiding necessary care, thereby affecting maternal health outcomes. The combined economic strain of these aspects has a disproportionate impact on women, especially women living in rural or remote regions, where extended travel and lodging is commonplace. Policy interventions that can help ease these burdens, for instance, those that improve transportation infrastructure, provide affordable lodging and childcare, and promote women's economic participation is necessary to increase access to maternal health care and could ultimately lead to improved maternal health outcomes.

2.5.2 Direct cost incurred by women seeking maternal health care under the free maternal health care policy

The direct costs of free maternal health care continue to burden many women. Even when policies have been adopted to reduce or eliminate fees, many women are still paying out-of-pocket costs that act as deterrents. For example, in Burkina Faso, a free healthcare policy for women that was implemented in 2016 was intended to remove these costs but almost a third of women still reported paying for their care. Out-of-pocket payments continue despite policies to abolish indirect maternal health care costs; the median direct health expenditure for a normal delivery ranged from US $5.38 (Bertone et al., 2017). In Ghana, too, financial constraints have persisted, despite the introduction of free maternal health services through the National Health Insurance Scheme (NHIS) in 2008. With most maternal services covered, only some costs, like transportation and some medications, go outside the insurance structure, and women have to pay extra for them (Atinga et al., 2016).

These costs, and maternal complications, can add up to much higher costs. In a study from Ethiopia, the overall median cost of managing maternal complications was 4,895.5 Ethiopian Birr or around US $100. This includes direct medical costs like extra treatments and hospitalizations and non-medical costs like transport and lost income. The large expenditures related to

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complications show the extent to which unexpected health issues during pregnancy can put families in a financial bind and create further barriers in seeking needed care (Wolde et al., 2017).

In addition to costs directly associated with complications, costs incurred personally (e.g., out-of-pocket payments and time costs) also influence whether women seek maternal health care. For instance, a study in the United States reported that the average direct costs for prenatal care per patient during the pregnancy period summed up to $101.96. These expenses include everything from prenatal visits to medications and other tests. These amounts may seem small when considered individually, but they can add up, particularly against the backdrop of women already juggling other financial concerns. These personal costs can add up, making women less likely to attend regular prenatal appointments or seek care when they need it, with implications for maternal health outcomes (Koh et al., 2020).

Another big cost women face directly during pregnancy is the cost of medication. Prescription medications including prenatal vitamins, iron supplements and treatments for pregnancy-related conditions come with additional financial burden. A recent report estimated, for example, that prenatal vitamins in the United States alone cost between $10 and $50 monthly depending on brand and insurance coverage. These amounts can increase without insurance, adding to the financial burden on pregnant women (Sulliva et al., 2019). Furthermore, the costs can add up with lab tests that are done during routine prenatal checks. Simple blood tests or screenings for something like gestational diabetes can cost $100 to $1,000 or more, depending on the test and clinic. For women who are uninsured, these costs create another barrier, which could delay testing or discourage women from getting necessary screenings (Mira et al., 2018).

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Facility and operational costs are also part of the overall cost of maternal health care. Many providers pass operating costs along to patients in the form of additional charges like facility fees, which can inflate the price of care. In Houston, for instance, facility fees for outpatient care have reportedly ranged from $90 to nearly $600 per visit. These extra charges are typically not made clear to patients beforehand, resulting in unexpected costs when the patient seek care (Houston Chronicle, 2023). In addition, certain delivery systems employ practice facilitation programs designed to enhance the quality of care, which also incur associated costs. These fees, which differ by the intensity of the intervention, range from $9,670 to $15,098 per practice per year and are meant to augment the quality of care but could further immunize healthcare organizations as well as patients from the financial toll (McCullough et al., 2018).

The combination of these various direct costs constitutes a large proportion of the financial burden for women seeking maternal health care. Even with policies aimed at easing some of these costs, simply put, many women still incur significant out-of-pocket expenses on services that are not covered by insurance, like transportation, medication, laboratory tests and facility fees. Addressing these costs is critical to improving maternal health outcomes and ensuring women get equitable access to the care they need during pregnancy and childbirth.

2.5.3 Indirect cost incurred by women seeking maternal health care under the free maternal health care policy

Indirect costs in free maternal health care include expenses incurred because of seeking care and are thereby not directly tied to care provision. Many of these costs include lost income, lost productivity, and emotional/physical strain, adding to the overall economic burden of free maternal healthcare policies for women. Despite the goal of these policies to decrease financial barriers, the continued indirect costs have placed a significant burden on women and their families.

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One of the most substantial indirect costs incurred by women seeking maternal healthcare is lost income. The time away from work for prenatal visits, delivery and postnatal care translates into lost wages, especially among women in informal or low-wage work who do not have paid leave. Numerous studies have pointed to the economic burden this place on households. For example, in Ghana, although the introduction of the Free Maternal Health Care Policy (FMHCP) was intended to decrease direct costs, women also cited significant income loss due to time spent away from work, a consequence that remains to undermine their household economy (Rana et al., 2020). Likewise, another study in Cross River State, Nigeria, found that while the policy was associated with increased facility-based deliveries, the level of lost income due to time spent seeking care was not significantly reduced (Ezeh et al., 2017). The findings indicate that while the policy does make services more affordable, it does not reduce the overall economic burden of maternal care.

Another major indirect cost is the loss of household productivity. When women need maternal healthcare, they must negotiate that care with their everyday household work. This frequently means decreased capacity to do household duties, take care of children and do other household chores, putting extra strain on other family members. Peters et al. (2021), in rural settings in Uganda, taking time off for healthcare visits reduced household productivity, which impacted family wellbeing and economic activities. Based on this evidence, the same study found that indirect costs represent the opportunity cost of healthcare, as households forego potential income or productive activities. So, when productivity within the home decreases, it can have knock-on effects for the whole family, especially in communities where it is primarily women providing care.

Emotional and physical stress is a critical indirect cost women endure as they seek maternal care. Jansen et al. (2020) highlighted the emotional strain on mothers balancing healthcare needs with household responsibilities. As a result, there is often that dual burden of stress, fatigue, and anxiety

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caring for their health and caring for their families. These emotional challenges increase mental health risk factors, such as depression and anxiety, not only of the women themselves, but also their families. Many mothers are trying to manage multiple responsibilities without any support systems, and that wears on mothers physically, which is associated with suboptimal maternal and child health outcomes. For example, a study conducted in Zambia by Mwanza et al. (2019) indicated that women who needed to travel to care exhibited considerable physical fatigue and mental stress, which proved highly detrimental to their health and willingness to seek care.

The indirect cost challenge associated with the free maternal health care policy despite providing direct benefits still limits their effectiveness. However, empirical evidence suggests while the introduction of policies such as the FMHCP can certainly improve immediate access to healthcare, the full comprehensive financial and emotional burdens women bear is not entirely addressed. A review by Smith et al. (2020) on global free maternity policies and the risk they pose in allowing free maternity policies to fall short by only addressing the financial barrier to accessing care rather than accounting for potential indirect costs, including time and lost productivity seeking care. These studies underline a need for more holistic maternal health policies that address not just direct financial barriers but empower women to mitigate the more economic and emotional difficulties involved.

Although free maternal health care policies have been effective in reducing direct health care costs for women, indirect costs continue to hinder equitable access. Reducing lost income, increasing household productivity and supporting women's emotional health both during pregnancy and childbirth are all at stake here, but require a more integrated policy response. Considering and addressing the full range of costs will lead to more sustainable and impactful outcomes for women and their families from maternal health policies.

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2.6 Conceptual Framework

This conceptual framework aims to explore and analyze the various household costs incurred by women seeking maternal health services under Ghana's free maternal health care policy. It identifies and categorizes the different types of household cost associated with the various maternal health care services under the free maternal health care policy. Direct cost refers to the costs incurred in receiving medical care (Fautrel et al., 2020). Medical cost may be characterized further into medical and direct non-medical cost made due to seeking maternal health care under the free maternal health care policy. Medical cost may include laboratory, scan, drugs, consultation, and admission. Non-medical costs include patient transportation, food, and water. Indirect costs are the cost that patients make while seeking medical care (such as lost wages and productivity) (Fautrel et al., 2020).

Free maternal health care policy intent to abolish the financial burden women seeking maternal health care must bear, thereby increasing the utilization of maternal health care service. Mothers and expectant mothers having free care from conception up to 90days after delivery (Azaare et al., 2020). The framework indicates the cost of women must bear whiles seeking for maternal health care services under the free maternal health care policy. The household cost women bear may vary from time to time, depending on what type of maternal services they are receiving at a particular point in time (antenatal, post-natal and delivery).

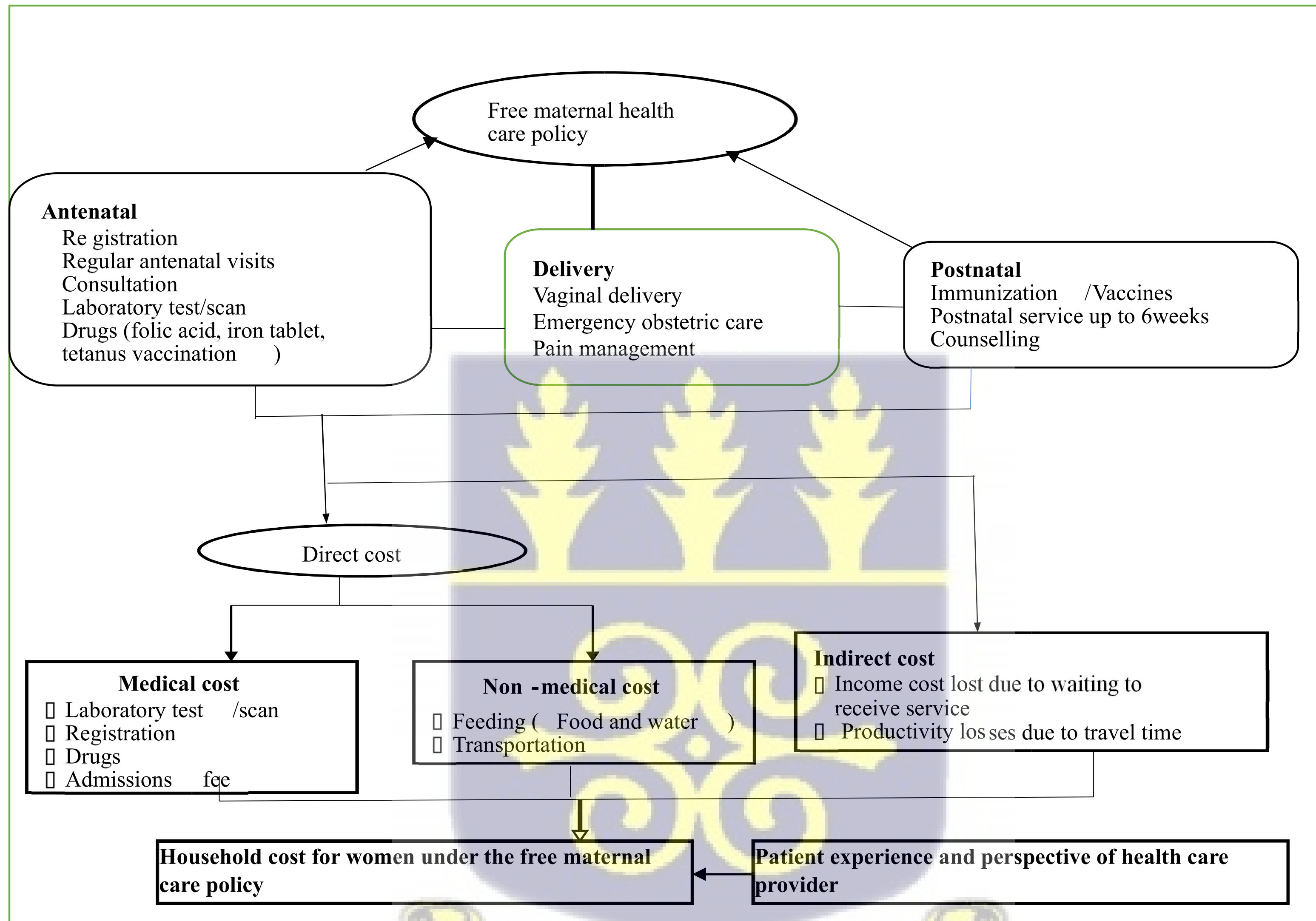

Figure: 2.1 Conceptual Framework

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In conclusion, the framework highlights the comprehensive nature of maternal care services provided under the Ghana's' free maternal health care policy and identifies the direct and indirect cost that the household still incur. Understanding these costs are critical for assessing the effectiveness of the policy and identifying where improvement is needed to ensure that women can have access to maternal health care with little or no financial burden. Again, the perceptions and perspectives of patients in their relation to healthcare providers at their respective facilities will be useful in interrogating the added cost and why such exists. This is the decider for the disparities in payments, and overall service delivery to women seeking maternal care.

2.7 Summary of Literature Review

The review in this chapter demonstrates that amid the free maternal health care policies accessible across low- and middle-income countries, the concerns of cost burdens still exist. In some of the studies across the sub-Saharan Africa, there are reports of women incurring direct costs which should have covered payments for medications, medical consumables, laboratory requests and other charges. The indirect costs mentioned included the transport expenditure to antenatal session, delivery period and post-delivery, child-care support were needed and the lost productivity from delayed services. The case of Ghana is no different as the Ghana Free Maternal Health Care Policy (FMHCP) introduced under the NHIS is of the same. Even though, evidence exists on the level of improvement in maternal health in Ghana, the concerns of cost burdens limit the effectiveness or otherwise, the implementation of the policy.

Despite this growing body of work, significant gaps remain. First, most studies on Ghana tend to either assess national-level patterns or focus on the northern belt, leaving other regions such as the Eastern Region which is under-represented in empirical evidence on household costs under the FMHCP. Second, while many studies examine direct or indirect costs independently, fewer attempt

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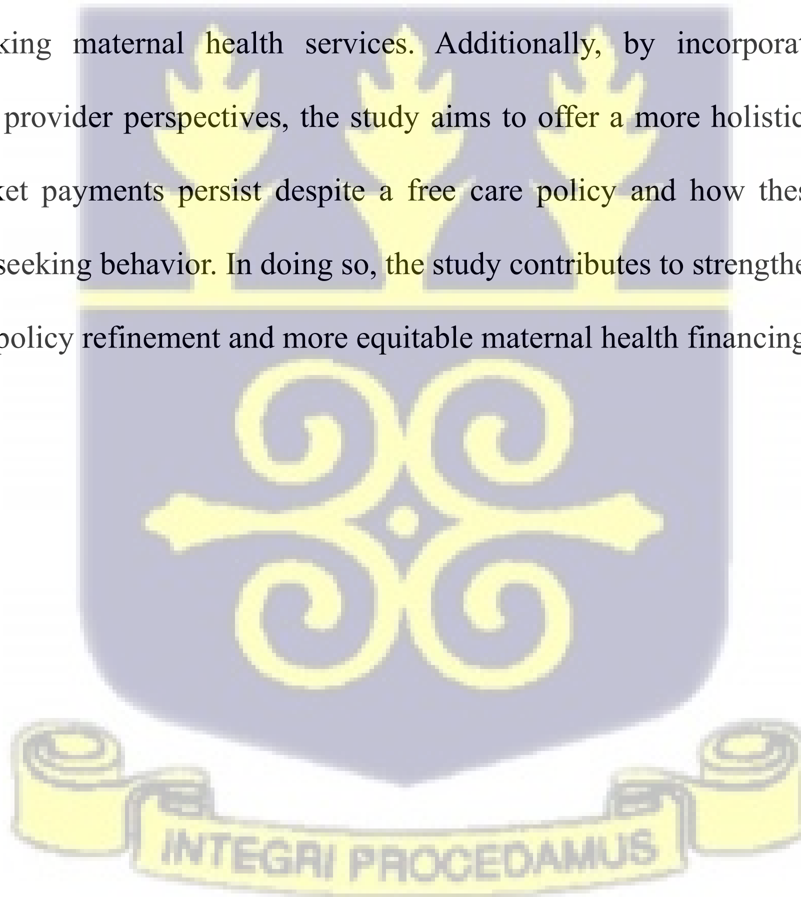
to integrate these dimensions within a single analytical framework that reflects the true financial journey of pregnant women. Third, limited attention has been given to understanding how women, health providers, and facility managers perceive these financial burdens in practice, although these perspectives are essential for designing more responsive policy interventions. Finally, little research has explored how these ongoing household costs shape the implementation of the FMHCP within specific municipal contexts that differ in geography, healthcare infrastructure, and socioeconomic profile.

This study seeks to address these gaps by providing context-specific evidence from Abuakwa South and Nsawam Adoagyiri Municipalities, examining the full range of household costs incurred by women seeking maternal health services. Additionally, by incorporating both patient experiences and provider perspectives, the study aims to offer a more holistic understanding of why out-of-pocket payments persist despite a free care policy and how these costs influence maternal health-seeking behavior. In doing so, the study contributes to strengthening the evidence base needed for policy refinement and more equitable maternal health financing in Ghana.



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CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter describes the methodology employed in the study. It presents the theoretical orientation, research design, study area, study population, inclusion and exclusion criteria, sampling procedure and sample size, data collection methods, data processing and analysis techniques, estimation of costs, quality control measures, and ethical considerations.

3.1 Theoretical Orientation of Methodology

A pragmatic research philosophy was used for assessing household costs in accessing free maternal health care due to its emphasis on practicality and action-oriented solutions. Pragmatism prioritizes tangible outcomes and real-world applications, aligning with the study's goal of identifying and remedying barriers to health care access despite its nominal cost. By employing mixed methods, this approach enabled the researcher to understand the issue by quantitatively measuring costs and qualitatively exploring perspectives as well. Focusing on solutions, the study aimed to guide policy and practice improvements to remove obstacles, echoing pragmatism's emphasis on action and improvement. This approach is especially fitting for the local area, ensuring that the results can be used effectively to improve access to maternal healthcare in the region (Tarnoki, 2019).

3.2 Study Design

The research employed both descriptive and exploratory to identify and categorize the types of household cost incurred by women seeking maternal health care services under the free maternal care policy in Abuakwa South and Nsawam Adoagyiri Municipalities under the free maternal health care policy and to estimate the magnitude of these household costs and its financial burden

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on women seeking maternal health care under the free maternal health care policy. In the qualitative aspect of the study, to explore patients' experiences and health providers and managers perspectives on household cost in accessing maternal health care in Abuakwa South and Nsawam Adoagyiri Municipalities. Through interviews (using an interview guide) with mothers and healthcare providers, the study aimed to unearth the details of their financial challenges, encompassing unforeseen expenditures, transportation hurdles, and other obstacles to healthcare access (Limpao, 2019).

3.3 Study Area

The study was conducted in the Eastern Region of Ghana, one of the sixteen administrative regions. Eastern Region is one of the sixteen regions in Ghana, it is located to the east of Greater Accra region, Eastern region lies between latitudes 6 and 7 degrees North and longitude 1.30-degree West and 0.30-degree East. It is the third largest region with a land area of 19,323 kilometers square. It shares boundaries with five other regions, the regions are: Greater Accra, Volta, Ahafo, Ashanti and Central region. (https://GH S.gov.gh/profile-eastern-region/).

Figure: 3.1 Eastern Regional Map showing selected districts.

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This study was conducted at the Antenatal unit/Post natal Unit and the Maternity/Labour ward of the Nsawam and Kibi Government Hospital in the Eastern Region. The selection of Abuakwa South and Nsawam Adoagyiri Municipalities is both deliberate and policy relevant. Abuakwa South Municipality, with its capital at Kyebi, is predominantly semi-rural and characterized by dispersed settlements and mixed economic activities, including farming, small-scale trading, and mining. These settlement patterns contribute to transportation challenges for pregnant women, particularly during emergencies, thereby influencing access to timely skilled delivery services. The municipality is served by a limited number of public and private health facilities, including a municipal hospital and health centers, which often experience logistical constraints such as intermittent stock-outs of essential drugs and supplies which then culminates into factors known to increase out-of-pocket payments for maternal care. Nsawam Adoagyiri Municipality, on the other hand, is more urbanized and strategically located along the Accra–Kumasi highway, which makes its health facilities accessible to a significant transient and resident population. The municipality hosts a major district hospital (Nsawam Government Hospital), several private maternity homes, and Community-based Health Planning and Services (CHPS) compounds. Despite having comparatively better infrastructure, Nsawam Adoagyiri faces high patient volumes, long waiting times, and periodic shortages of NHIS-reimbursable medicines, all of which contribute to increased indirect and direct household costs for pregnant women. These two municipalities present contrasting yet representative maternal health dynamics within the Eastern Region. Abuakwa South has recorded persistent challenges in timely access to skilled delivery services, with the 2023 District Health Report indicating that over 37% of pregnant women experienced delays in seeking facility-based care due to financial or transportation-related constraints. Nsawam Adoagyiri, on the other hand, hosts one of the region's busiest municipal

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hospitals, serving both urban and peri-urban populations, where anecdotal evidence shows that hidden costs under the Free Maternal Health Care Policy remain a common concern among expectant mothers. Together, these municipalities capture diverse socioeconomic settings; urban, peri-urban, and rural, making them ideal for examining the full spectrum of household costs associated with maternal care. Nsawam Government hospital was established in 1928. It has a total of 147 beds. The hospital has over 220 staff. Both hospitals are Municipal Hospitals and have five main departments. About 100 women seek maternal health care services daily in the hospital. The hospital is located on the Nsawam-Aburi Road in the Akwapim South Municipality. Kibi Government hospital was established in 1926. It has a 118-bed capacity, and over 237 staff. Most of the people in these constituencies are traders and farmers.

3.4 Study Population

The population comprised three groups:

1. Pregnant, postnatal, and recently delivered women aged 18 years and above accessing maternal healthcare at Nsawam and Kibi Government Hospitals.

2. Healthcare providers involved in maternal health service delivery, including doctors/physician assistants, midwives, nurses, pharmacists/dispensary assistants, and laboratory staff.

3. NHIS officers working in Abuakwa South and Nsawam-Adoagyiri municipalities.

3.5 Inclusion Criteria

The study included pregnant, postnatal, and recently delivered women aged 18 years and above who accessed maternal health services at Nsawam and Kibi Government Hospitals during the data collection period. Health providers with at least six months of experience in these facilities were

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also involved, alongside officers from the National Health Insurance Scheme (NHIS) offices in Abuakwa and Nsawam municipalities who had worked for a minimum of six months. All participants were sound-minded, fully informed about the study's purpose, and voluntarily gave their consent to participate. None of the respondents mentioned their caregivers or supporting relatives were on leave at the time of seeking maternal health care and thus no considerations made for such.

3.6 Exclusion criteria

The study excluded individuals whose characteristics did not fit the defined population for assessing household costs under the Free Maternal Health Care Policy. Women who were not pregnant, had not recently delivered, or were not attending postnatal care during the study period were excluded, as they were outside the scope of analysis. Healthcare providers and NHIA officers who were not directly engaged in maternal healthcare delivery or claims management were also omitted to ensure relevance to the study objectives. Women below 18 years were excluded due to ethical constraints requiring parental consent, which the study design did not incorporate. Additionally, women who were severely ill or unable to participate meaningfully in interviews were excluded to ensure data quality and safeguard participant welfare. Refusal to consent was handled as an ethical consideration and not categorized as an exclusion criterion.

3.7 Sampling Technique

The study employed a two-stage sampling approach. In the first stage, the two district hospitals were purposively selected because they serve as referral centers and provide a broad range of maternal healthcare services. This purposive selection ensured that the study could access sufficient participants and detailed information on the cost of maternal healthcare services.

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In the second stage, antenatal women, delivery, and postnatal mothers who received care at the selected facilities were randomly sampled. Specifically, simple random sampling was used to ensure that each eligible participant had an equal chance of being selected, enhancing the representativeness of the sample and minimizing selection bias. Using this frame, participants were selected through a lottery-based simple random method to avoid systematic bias. This approach ensured that the sample reflected the diversity of service users across different stages of maternal care.

In addition to the two-stage sampling procedure outlined, purposive sampling was also applied in selecting specific categories of participants whose experiences were central to the study objectives. This included health providers, NHIS officers, and facility managers who possess in-depth knowledge of the implementation challenges, cost structures, and operational gaps within the Free Maternal Health Care Policy. Their selection was based on their roles, years of experience, and direct involvement in maternal health service delivery. Combining purposive and random sampling allowed the study to capture both the breadth of service users' experiences through probability sampling and the depth of system-level insights through purposive selection, thereby providing a more comprehensive understanding of the cost dynamics associated with maternal healthcare in the two districts.

3.8 Sample Size

The sample size for the quantitative survey was calculated using the Yamane (1967) formula.

$$n = \frac{N}{1 + N(〚e)〛^2}$$

Where n is the required sample size,

N is the population size,

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And e is the margin of error.

The estimated population for maternal healthcare attendance for the period of data collection in the two facilities over a period of two months is 24,110.

To achieve a 95% confidence level with a 5% margin of error, the required sample size is

$$n = \frac{24{,}110}{1+24{,}110\,(0.05)^2} = 393$$

For the qualitative study, in-depth interviews were conducted at the two municipal hospitals. The participants included women seeking maternal healthcare services, health providers, and staff of the National Health Insurance Authority (NHIA) in Nswam-Adoagyir and Abuakwa South municipalities. Twelve women seeking maternal healthcare services (six from each hospital),10 participants from the NHIA (five from each municipality), and 17 healthcare providers who offer direct maternal healthcare services were interviewed. For the qualitative component, a total of 39 participants were included. These comprised 17 healthcare providers, 12 antenatal, delivery, and postnatal mothers, and 10 officers from the National Health Insurance district office. The participant count is presented here to align logically with the sample size and sampling description, ensuring clarity in the methodological sequence.

3.9 Data collection procedure

The study protocol was approved by Ghana Health Service ethics review committee. Permission was obtained from the Eastern Regional Health Directorate. Participants were selected using a purposive sampling approach The questionnaire was administered face-to-face; Participants were randomly selected to take part in the study and spent not more than 30 minutes except in cases where extra assistance and explanations were needed. Informed consent was obtained after

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participants were briefed on the study's purpose and assured of confidentiality and anonymity. A Google form was used to collect quantitative data, a recorder was used to record qualitative data, and permission was sought before recording. Recordings were transcribed, and all data securely stored. The data collection period for the entire data collection was four weeks. Each interview for the qualitative study lasted for about 35 minutes.

3.10 Data processing and Analysis

Interviews were conducted using Google Forms, with a unique code for each participant. There were no names or any pointers that would lead to the identification of any participant, ensuring anonymity. Each questionnaire was verified after data was collected to ensure that they were complete. Data cleaning and descriptive analysis were done in Microsoft Excel and STATA software. Thematic analysis was the main technique used to analyze qualitative data. The interview transcripts were scrutinized to identify recurring themes and patterns. The transcribed information was reviewed to identify recurring patterns and perspectives concerning the undisclosed cost linked to the free maternal care policy, as perceived by women and service providers. The data was coded and systematically labelled to unveil meaningful concepts and ideas. These initial codes evolved into broader themes, capturing recurring patterns and topics within the data. Through a cyclical process of review and refinement, these themes were polished to reflect the intricacies of the participants' experiences. The outcome of this gives detailed information on the household costs of maternal healthcare in the region.

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3.10.1 Estimation of direct cost

Direct costs included medical and non-medical expenses such as registration, consultation, drugs, laboratory tests, scans, transportation, and feeding expenses. This operationally refers to the actual out-of-pocket payments made by women or their households for maternal health care, including

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medical expenses (consultation, laboratory tests, drugs, admission) and non-medical expenses (transportation, feeding, and maternity supplies). This report will show the total cost captured from all responses and the average captured as the total cost divided by the number of respondents who reported same. The averages are not representative of all respondents as not all respondents gave details of their expenditure either due to uncertainty of cost, or non-applicable cases.

3.10.2 Estimation of indirect cost

Indirect costs included productivity losses due to absenteeism and travel time. The human capital approach was applied, using participants' daily income rates to estimate the value of lost productivity. This denotes the loss in productivity and time incurred by women or household members when accessing maternal health services. This includes work absenteeism, reduced income, and the opportunity cost of travel and waiting time. The estimations follow same justifications indicated above.

3.10.3 Estimation of Economic cost

Economic costs were calculated as the sum of direct and indirect costs participants had incurred for the period of their most current pregnancy or delivery. All costs were presented in Ghana Cedis and US Dollars using the Bank of Ghana exchange rate at the time of data collection (US $1 = GHS15.49) (Bank of Ghana, 2025). The total cost and average covering respondents who responded to these costs are captured in the report.

3.11 Quality control

The researcher (PI) checked the data thoroughly before data analysis. Consistency checks were built into the data capture tool to minimize errors. Each questionnaire was verified after data was collected to ensure that they were complete.

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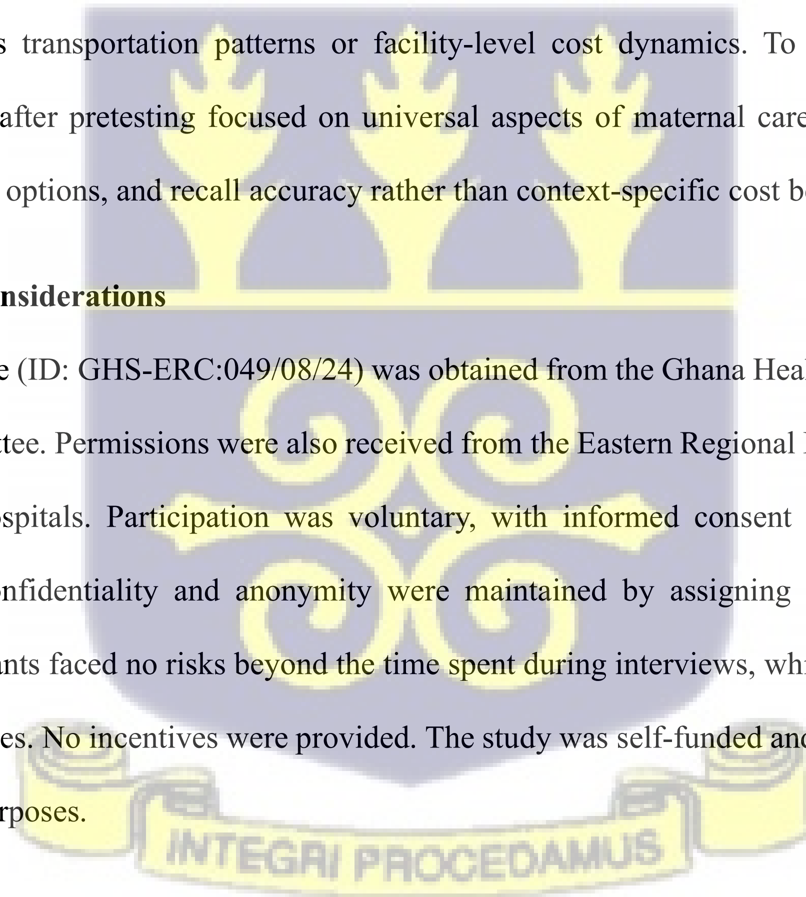
3.11.1 Pretesting

The questionnaire was pre-tested with 15 pregnant women and five healthcare providers at Dansoman Polyclinic to assess clarity, reliability, and appropriateness of questions. Although pretesting would have been ideal in similar setting to the actual study areas, Dansoman polyclinic was chosen for some practical and methodological considerations. The polyclinic receives a high and diverse caseload of antenatal, delivery and postnatal clients and thus the pretest could be quickly handled. Again, it was envisioned that logistical and administrative support was more readily available here. Nonetheless, the study acknowledges that Dansoman is more urbanized than Abuakwa South and Nsawam Adoagyiri, and this difference may influence some contextual aspects, such as transportation patterns or facility-level cost dynamics. To mitigate this, the revisions made after pretesting focused on universal aspects of maternal care such as question clarity, response options, and recall accuracy rather than context-specific cost behaviours.

3.12 Ethical Considerations

Ethical clearance (ID: GHS-ERC:049/08/24) was obtained from the Ghana Health Service Ethical Review Committee. Permissions were also received from the Eastern Regional Health Directorate and selected hospitals. Participation was voluntary, with informed consent obtained from all participants. Confidentiality and anonymity were maintained by assigning codes rather than names. Participants faced no risks beyond the time spent during interviews, which lasted between 20 and 35 minutes. No incentives were provided. The study was self-funded and conducted solely for academic purposes.



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CHAPTER FOUR

RESULTS

4.0 Introduction

This chapter presents the results of the study on the household costs associated with maternal healthcare under the Free Maternal Health Care Policy in Ghana. The findings cover the socio-demographic characteristics of respondents, direct and indirect costs of antenatal, delivery, and postnatal care, as well as the overall economic cost of maternal healthcare services. It further explores respondents' understanding of covered services, perceptions of financial burden, service utilization, and challenges relating to access and quality of care at Nsawam and Kibi Government hospitals.

4.1 Socio-demographic characteristics

This section presents the socio-demographic characteristics of the study participants such as age, marital status, education, income, occupation, among others. In all, 393 participants responded to the interview. Of the total number, 43% (169) were ANC clients, 40.5% (159) were PNC clients and 16.5% (65) had just delivered (Table 4.1). Majority (43%) of the study participants as shown in Table 4.1 were between the ages of 25-30 years, while the least was between 36-45 years (9%), followed by 25% being aged 18-24 years and then 35% being aged 36-45 years. With regards to marital status, over half (54%) of the study participants were married, 41% cohabiting, and 5% were single. On study subjects' occupation, 36% were traders, 22% Artisans, 17% unemployed, 13% were farmers, 9% were public servants, 2% were development workers (working with NGOs), and 1% being in other sectors. The study results revealed that 55% of the participants had between one to five children, 27% had no children and 18% had six or more children. On the

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aspect of study participants' monthly income, 35% of them earned less than GHS500.00 per month, 28% earned between GHS500.00 to GHS900.00, 17% had no monthly earning, 9% earned between GHS1000.00 to GHS1400.00, 7% earned between GHS1500.00 and GHS2000.00 while 4% earned above GHS2000.00 a month.

All study participants (100%) were ensured with the National Health Insurance Scheme (NHIS). With respect to the number of days participants spent on admission at the health facilities, 60% (39) reported spending less than 3 days in the health facility after delivery, 31% (20) spent between 3 and 5 days, while 9% (6) spent 6 or more days in the health facility after delivery. Details of discussions are presented below in Table 4.1.

Table 4.1 Socio-demographic characteristics

Variables	Frequency (N=393)	Percentage (%)
Age groups (years)		
18 – 24	99	25.19
25 – 30	170	43.26
31 – 35	89	22.65
36 – 45	35	8.91
Marital status		
Married	212	53.94
Cohabiting	160	40.71
Single	21	5.34
Occupation		
Artisan	87	22.14
Farming	49	12.47
NGO	6	1.53
Public Servant	37	9.41
Trader	142	36.13
Unemployed	68	17.30
Others	4	1.02
No. of Children		
< 1	107	27.23
1-5	217	55.22
5 +	69	17.56
Monthly income (GHS)		

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No income	68	17.30
< 500	136	34.61
500 – 900	109	27.74
1000 – 1400	37	9.41
1500 – 2000	28	7.12
2000 +	15	3.82
Insurance status (NHIS)		
No	0	0.00
Yes	393	100.0
Duration of admission (Days)		
<3	39	60.00
3-5	20	30.77
5>	6	9.23

4.2 Access, Utilization and Cost of Maternal Health Services

4.2.1 Cost of Antenatal Care

On average, respondents incurred a total of GHS598.04 (US $38.61) for antennal care during their most current pregnancy or delivery as presented in Table 4.2. Direct medical costs amounted to GHS388.93 (US$25.11), covering expenses such as consultation, admission, drugs, and laboratory/scan services. Direct non-medical costs (GHS209.11 (US$13.50) included transportation, feeding, and maternity dresses.

Indirect costs as indicated in Table 4.2 below is captured mainly from productivity losses, averaged GHS20.84 (US$1.35), of this, absenteeism accounted for GHS16.02 (US$1.02), while travel time cost GHS4.82 (US$0.31).

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Table 4.2 Direct cost of Antenatal

Cost item	Cost GHS (US $)	Average cost GHS (US $)
Direct medical cost		
Consultation	450 (29.05)	5 (0.32)
Admission fee	3,120 (201.42)	312 (20.14)
Lab/scan	8,625 (556.82)	51.07 (3.30)
Drugs	3,525 (227.57)	20.86 (1.35)
Subtotal	**15,720 (1,014.87)**	**388.93 (25.11)**
Direct non-medical cost		
Cost of transportation	1,415 (91.35)	8.38 (0.54)
Cost of feeding	3,275 (211.43)	19.59 (1.26)
Maternity dress	30,590 (1,974.82)	181.14 (11.69)
Subtotal	**35,280 (2277.60)**	**209.11 (13.50)**
Total	**51,000 (3292.45)**	**598.04 (38.61)**

Table 4.3 Indirect cost of Antenatal

Cost item	Cost GHS (US $)	Average cost GHS (US $)
Productivity loss due to absenteeism	2,707.38 (174.79)	16.02 (1.03)
Productivity loss due to travel time	813.735 (52.53)	4.82 (0.31)
Total	**3,521.115 (227.25)**	**20.84 (1.35)**

4.2.2 Cost of Delivery Care

The results of this study revealed that overall, the average direct medical cost of delivery service was GHS1,579.38 (US$101.96) with direct medical cost being GHS537.77 (US$34.67) and direct non-medical cost being GHS763.04 (US$49.26). With regards to direct medical cost, medication costed GHS216.07 (US$13.95), admission GHS211.70 (US$13.67), lab GHS50.00 (US$3.32) and ultrasound scan GHS60.00 (US$3.87) while direct non-medical cost had bed preparedness costing

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GHS589.29 (US$38.04), cost of feeding GHS111.79 (US$7.22) and transportation GHS61.96 (US$4.00) as shown below in Table 4.4.

On the indirect cost of delivery, on average, it cost GHS373.51 (US$24.11), of which loss to productivity due to absenteeism was GHS204.98 (US$13.23) and loss to productivity due to travel time was GHS168.53 (US$10.88)

Table 4.4 Direct cost of Delivery

Cost item	Cost GHS (US $)	Average cost GHS (US $)
Direct medical cost		
Admission fee	11,860 (765.67)	211.7 (13.67)
Lab fee	500 (32.28)	50 (3.32)
Scan	300 (19.37)	60 (3.87)
Drugs	12,100 (781.17)	216.07 (13.95)
Subtotal	**24,760 (1596.39)**	**537.77 (34.67)**
Direct non-medical cost		
Cost of transportation	3,470 (224.02)	61.96 (4.00)
Cost of feeding	6,260 (404.14)	111.79 (7.22)
Bed preparedness items	33,000 (2,130.45)	589.29 (38.04)
Subtotal	**42,730 (2,758.61)**	**763.04 (49.26)**
Grand total	**67,490 (4,355.73)**	**1,579.38 (101.96)**

Table 4.5 Indirect cost of Delivery

Cost item	Cost GHS (US $)	Average cost GHS (US $)
Productivity loss due to absenteeism	11,478.96 (741.07)	204.98 (13.23)
Productivity loss due to travel time	9,437.4 (609.27)	168.53 (10.88)
Total	**20,916.36 (1350.34)**	**373.51 (24.11)**

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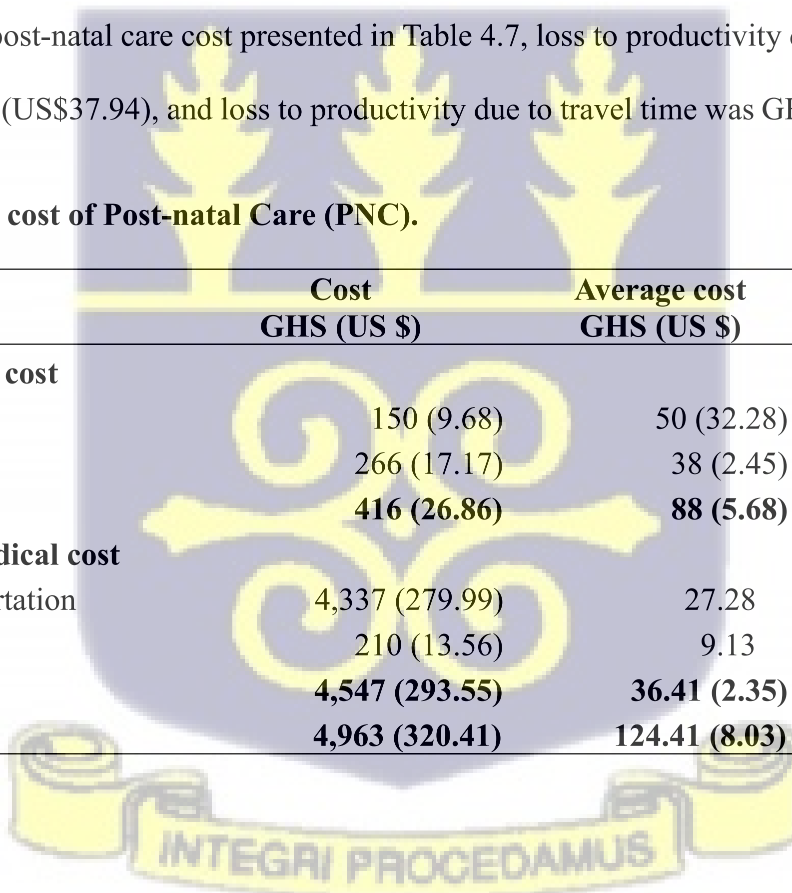
4.2.3 Cost of Post-natal Care

This study estimated both direct and indirect average post-natal care costs to be GHS124.41 (US$8.03) and GHS592.43 (US$38.25), respectively.

The analysis as shown in Table 4.6 revealed that direct medical post-natal care and direct non-medical post-natal care cost GHS88.00 (US$5.68) and GHS36.41 (US$2.35) respectively on average. The direct medical postnatal care cost included laboratory services and ultrasound scan GHS50.00 (US$3.23), medication GHS28.00 (US$2.45), while direct non-medical post-natal cost included transportation GHS27.28 (US$1.76), and feeding, GHS9.13 (US$0.59).

For the indirect post-natal care cost presented in Table 4.7, loss to productivity due to absenteeism was GHS587.61 (US$37.94), and loss to productivity due to travel time was GHS4.82(US $0.31).

Table 4.6 Direct cost of Post-natal Care (PNC).



Cost item	Cost GHS (US $)	Average cost GHS (US $)
Direct medical cost		
Lab/scan	150 (9.68)	50 (32.28)
Drugs	266 (17.17)	38 (2.45)
Subtotal	**416 (26.86)**	**88 (5.68)**
Direct non-medical cost		
Cost of transportation	4,337 (279.99)	27.28
Cost of feeding	210 (13.56)	9.13
Subtotal	**4,547 (293.55)**	**36.41 (2.35)**
Grand total	**4,963 (320.41)**	**124.41 (8.03)**

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Table 4.7 Indirect cost of Post natal Care

Cost item	Cost GHS (US $)	Average cost GHS (US $)	Cost profile (%)
Productivity loss due to absenteeism	93,411 (6030.540)	587.61 (37.94)	0.63
Productivity loss due to travel time	765.59 (49.43)	4.82 (0.31)	0.63
Total	**94,176.59 (6079.96)**	**592.43 (38.25)**	**1.26**

4.3 Economic cost of maternal health Services

The economic cost of maternal healthcare services was estimated at GHS231,737.065 (US$14,950.78). The direct cost estimated at GHS123,453 (US$7,965.56) constituted 53.27%, the most significant proportion of the total cost, while indirect cost estimated at GHS108,284.065 (US$6,986.81) accounted for 46.73 % of the cost. The main driver of the economic cost was the cost of productivity loss due to absenteeism (indirect cost), constituting GHS97,267.34 (US$6,275.98) of the total cost. Table 4.8 below captures these results above. For the cost profiling, direct costs account for 53.3% of the cost burden whilst Indirect cost covers 46.7%. The breakdown is presented in Table 4.8 below.

Table 4.8 Economic cost of maternal health care services

Cost item	Cost GHS (US $)	Cost profile (%)
Direct Cost		
Consultation	450 (29.04	0.2
Admission fee	14,980 (966.55)	6.5
Lab/scan	9,575 (617.81)	4.1
Drugs	15,891 (1025.33)	6.9
Cost of transportation	9,222 (595.03)	3.10
Cost of feeding	9745 (628.78)	4.2
Sub-total	**123,453 (7,965.56)**	**53.3**
Indirect cost		
Productivity loss due to absenteeism	97,267.34 (6,275.98)	41.10
Productivity loss due to travel time	11,016.725 (710.83)	4.8

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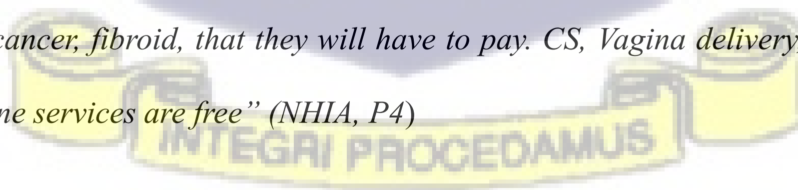
Sub-total	**108,284.065 (6,986.81)**	**46.7**
Grand total	**231,737.065 (14,950.78)**	**100.00**

4.4 Perceptions and Experiences of Maternal Healthcare Services

4.4.1 Understanding of Covered Services and Financial Burden

All participants expressed their opinions about the cost of services they have to pay under the free maternal care when they attend ANC. They indicated they were not happy with the payment of services such as Ultrasound Scan, laboratory services, etc, and felt the services should have been free of charge. Few others thought otherwise. According to the NHIA team, maternal health services are free, and almost all services are covered under the free maternal health policy.

> *"When you are pregnant and you come to the hospital, everything is supposed to be free" (P1)*
>
> *"It is supposed to be free, but I have to still pay for scan and labs. I know the insurance pay for half, and I also pay for half". (P11)*
>
> *"Even though we still have to pay for some of the things, but it is good, because if they make it completely free, we will have a lot of teenage pregnancies" (P2)*
>
> *"The policy is to take care of the venerable, that was the objective of introducing the policy. It is free to the clients.*
>
> *"Universal accepted drugs in the facilities, antenatal, OPD, unless it is extreme cases like cancer, fibroid, that they will have to pay. CS, Vagina delivery, scan, and all the routine services are free" (NHIA, P4)*



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4.4.2 Access and Awareness

Most participants became aware of the free maternal healthcare policy through the healthcare providers. Nurses frequently encouraged uninsured women to register under NHIS to access subsidized services.

> *"I was pregnant and came to the facility without insurance. The nurses told me to go and register for insurance so that things like laboratory tests and other services that I will seek, the insurance will pay for some, and I will also help". (P1)*

> *"I heard it from the nurses that if you have insurance, there are things you do not have to pay for" (P3)*

> *"I got to know about the free maternal healthcare policy when I came here with my first pregnancy. After registration, the nurses asked me to send my antenatal book to the National Health Insurance office so that they would enroll me on the policy" (P6)*

4.4.3 Cost burden to Maternal Health Care

Most participants reported that despite the Free Maternal Health Care policy, they incurred out-of-pocket expenses, which made access to healthcare difficult.

> *"Although the service is said to be free, I had to pay for some drugs and laboratory tests, which was unexpected."* (P4)

> *"For the scan I have taken twice, and each one I paid 50 Ghana cedis. For the laboratory services, I paid 50 cedis, and medications in all I have paid 120 Ghana cedis" (P5).*

> *"When I was in labor, the cost of the medicine that we bought was so much that my husband had to go and borrow money from elsewhere to come and get it. They should*

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let us know. If the policy is free or not, because the insurance does not cover much in my experience" (P7).

Participants from the NHIA also agreed that even though the healthcare for pregnant women is free, healthcare providers allow these women to pay out of pocket before accessing care.

"Some of the pregnant women come here to complain to us that they were asked to pay money for drugs, scan, or laboratory tests, and we go with them to the providers to retrieve their monies for them. But the problem is most of them do not come and tell us when the providers take money from them" (NHIA, P4)

"It is free, but because we are human, you will not get it as you want it. In some of the facilities, they ask them to top-up. They are not supposed to pay out of pocket, but they do" (NHIA, P3)

4.4.4 Service Utilization

Most providers reported that utilization of maternal healthcare services has increased significantly despite the challenges with the policy. This is what a Service Provider had to say about that;

"*Can't you see how a lot of women are giving birth to many children, it is because of the policy, even though it is not completely free, but it reduces cost" (HW, P5)*

"When you check our records, before the policy started, attendance was low, but now, sometimes we leave late because the numbers keep increasing every day" (HW, P4)

"The nurses will tell you, because of this policy, home delivery has reduced significantly, antenatal attendance too has increased, and we also see it when it comes to the claims they submit" (NHIA, P3)

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4.4.5 Quality of Care and Health Worker Attitude

Several respondents were concerned about the attitude of healthcare providers. Some felt they were not treated well because they were using the free maternal health service.

> *"The nurses sometimes ignore us when they realize we are using the free service. It makes us feel less important."* (P3)
>
> *"When you come here with insurance, the only medications that you will get for free is paracetamol, the rest you have to buy" (P5)*

4.4.6 Delays in Service Delivery

A common challenge mentioned was the long waiting time before receiving care and inadequate medicine. The findings reveal that financial constraints, health worker attitudes, and long waiting times are significant barriers to accessing maternal health services. While the Free Maternal Health Care policy has improved access, out-of-pocket payments and systemic challenges still exist.

> *"Sometimes, I go to the hospital early in the morning, but I don't see the doctor until the afternoon." (P2)*
>
> *"The system is slow; we wait for hours, and sometimes they tell us to come back another day." (P6)*

4.4.7 Logistical and Operational challenges

The National Health Insurance Authority and the Ghana Health Service should work together to provide necessary resources and logistics for the hospitals. Inadequate or lack of logistics and apparatus like BP machine, Gloves, and others create a loophole for the providers to take advantage to bill patients.

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"Yesterday, for instance, our BP machine needed new batteries, and when we went to the stores, they told us they do not have, and now that we are not allowed to charge clients for anything, how do we generate IGF to fund such things?" (HW, P3).

"Sometimes we do not pay the facilities early enough, so they also intend charge our clients to get money to run their hospitals" (NHIA, P8).

4.4.8 Support and Assistance

Most women do not have external support apart from their husbands, and when their partners face financial challenges, accessing maternal health care becomes difficult for them. Less than half (33%) of respondents reported that they sometimes got financial support from their mothers. The remaining 67% said it was only their partners/husbands that they got financial support from.

"I had to miss my antenatal appointment twice because my husband said he did not have money for me to go to the hospital, I also did not have money, so I stayed home" (P11)

"After I delivered, I spent another day in the hospital because my husband did not have money, so he had to go and borrow to come and pay my bills before I was discharged" (P9)

4.5 Chapter Summary

This chapter presented the findings on the household costs and experiences associated with accessing maternal healthcare services at Nsawam and Kibi Government Hospitals. The socio-demographic profile of respondents showed that the majority were young women between 25–30 years, married or cohabiting, and primarily engaged in trading or artisan work. Although all

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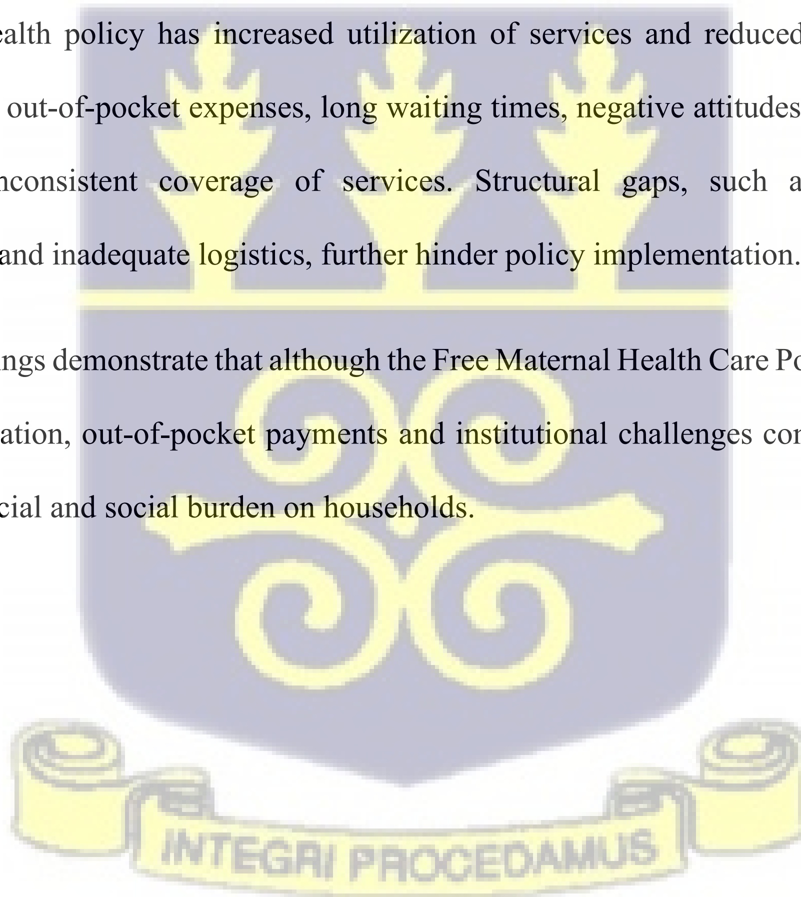
participants were enrolled under the NHIS, out-of-pocket payments were still evident across antenatal, delivery, and postnatal services.

The analysis revealed that antenatal care costs an average of GHS598.04 (US$38.61), delivery care GHS1,579.38 (US$101.96), and postnatal care GHS124.41 (US$8.03) indirect costs. Indirect costs, particularly productivity losses due to absenteeism, significantly contributed to the total economic burden, raising the overall household cost of maternal healthcare to GHS231,737.07 (US$14,950.78).

Beyond financial considerations, participants highlighted several systemic challenges. While the free maternal health policy has increased utilization of services and reduced home deliveries, women still face out-of-pocket expenses, long waiting times, negative attitudes from some health workers, and inconsistent coverage of services. Structural gaps, such as delayed NHIA reimbursements and inadequate logistics, further hinder policy implementation.

Overall, the findings demonstrate that although the Free Maternal Health Care Policy has improved access and utilization, out-of-pocket payments and institutional challenges continue to impose a substantial financial and social burden on households.



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CHAPTER FIVE

DISCUSSION OF FINDINGS

5.0 Introduction

This chapter critically discusses the findings of the study in relation to the research objectives and the wider literature on maternal healthcare financing and utilization in Ghana and other low- and middle-income countries. The study sought to: (1) To identify and categorize the types of household cost incurred by women seeking maternal health care services under the free maternal care policy in Abuakwa South and Nsawam Adoagyiri Municipalities under the free maternal health care policy. (2) To estimate the magnitude of these household costs and its financial burden on women seeking maternal health care under the free maternal health care policy and (3) To explore patients' experiences and health providers and managers perspectives on household cost in accessing maternal health care in Abuakwa South and Nsawam Adoagyiri Municipalities. Each objective is discussed below with reference to existing literature.

Each objective is discussed below with reference to existing literature.

5.1 Socio-Demographic Characteristics of Women Accessing Maternal Healthcare

The study found that most women accessing maternal healthcare were between 25–30 years old, married or cohabiting, and largely working in the informal economy as traders and artisans, this can be found in table 4.1. This reflects the broader demographic profile of reproductive-age women in Ghana, where informal sector employment dominates (Ghana Statistical service, 2022). The high representation of married or cohabiting women (over 90%) aligns with cultural expectations

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of childbearing within family units, though the 5% of single women shows that maternal healthcare services also extend to unmarried clients.

Comparatively, Dalinjong et al. (2018) in northern Ghana reported similar patterns, with women in informal employment facing the highest burden of maternal care costs despite the exemption policy. The present study strengthens that observation by showing that even in relatively urbanized settings like Nsawam and Kibi, informal-sector women continue to face disproportionate vulnerabilities due to their irregular incomes.

A notable finding is that 35% of respondents earned less than GHS500 monthly, with 17% having no income at all. This is consistent with the Ghana Statistical Service's report (2018), which highlights that women in low-income households remain exposed to catastrophic health expenditure despite holding valid NHIS cards. Unlike wealthier households, poor women lack the financial buffers to cover hidden charges such as laboratory services and medications, which undermines the pro-poor objective of the policy (Akazili et al., 2018).

Additional evidence suggests that women's socio-demographic backgrounds influence not only affordability but also patterns of utilization. For instance, Twum et al. (2018) observed that higher-income women are more likely to deliver in private or mission facilities where service quality is perceived as better, while low-income women remain dependent on public facilities where out-of-pocket payments are more common. This study corroborates that trend, as most women interviewed were dependent on public hospitals in Nsawam and Kibi, even when dissatisfied, because they lacked the resources to choose alternatives.

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Furthermore, education levels also played a role in shaping women's understanding of the policy. Although this study did not disaggregate extensively by education, it was evident from the

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narratives that women with higher levels of schooling were more likely to question informal charges or demand clarification from NHIA officers. This aligns with findings from Alatinga et al. (2018), who argue that education empowers women to assert their rights in healthcare settings. Thus, socio-demographic factors such as income, occupation, and education intersect in ways that critically shape women's maternal healthcare experiences.

5.2 Direct and Indirect Costs of Maternal Healthcare Services

One of the study's central findings was that women incurred significant costs during antenatal (GHS598.04), delivery (GHS1,579.38), and postnatal care (GHS124.41) as indicated on table 4.2, 4.4 and 4.6. Direct non-medical expenditure (e.g., transportation, feeding, and maternity clothing) and indirect costs from productivity losses were particularly high.

These results challenge the assumption of "free" maternal care. Alatinga et al. (2018) similarly reported that women in Ghana continued to pay out-of-pocket for essential services such as laboratory tests and scans, despite policy coverage. This study highlights the growing importance of indirect costs, particularly productivity losses from absenteeism, which accounted for GHS 587.61 during postnatal care. This resonates with Dalinjong et al. (2018), who found indirect costs made up nearly half of maternal care expenditures in rural Ghana.

The difference, however, is that while rural studies often emphasize transportation as the biggest non-medical burden, this study shows maternity clothing and bed-preparedness items as significant cost drivers in semi-urban facilities. This suggests that the structure of costs varies across settings: rural women are disproportionately affected by access-related costs, while urban and peri-urban women face higher expenditures on medical accessories and preparedness.

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A further point of comparison is with Banke-Thomas et al. (2018), who noted that out-of-pocket payments, particularly for delivery, often discouraged poor women from seeking institutional care. The current study confirms this but adds nuance by showing that even when women manage to attend facilities, their financial struggles persist throughout the continuum of care from antenatal to postnatal services. This broadens our understanding of maternal healthcare financing, showing that the problem is not confined to delivery alone.

Additionally, the finding that non-medical expenses such as maternity clothing formed a significant share of costs raises important cultural considerations. In Ghana, social norms often require women to present themselves in specific ways during pregnancy and delivery, making such expenditures socially non-negotiable. This means that financial analyses of maternal health must account for cultural as well as medical drivers of cost, a dimension often missing from earlier economic evaluations (Akazili et al., 2018).

Hence, the evidence confirms that Ghana's maternal health policy has reduced official fees but has failed to address the wider range of expenses that matter most to women.

5.3 Economic Burden of Maternal Healthcare Services

The total economic burden of maternal healthcare was estimated at GHS231,737.07, with direct costs contributing to 53.3% and indirect costs 46.7%. The dominant cost driver was productivity losses due to absenteeism (41.1%).

This finding has two critical implications. First, it aligns with Becker (1993) human capital theory, which argues that time lost from productive labor is a major component of healthcare costs.

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Second, it supports Banke-Thomas et al. (2021), who emphasize that opportunity costs are often higher than formal healthcare fees in low-income settings.

In contrast, Akazili et al. (2018) highlighted direct medical costs (e.g., drugs, laboratory services) as the most pressing issue for poor households. This study departs from that view by demonstrating that, at least in Nsawam and Kibi, indirect costs are equally burdensome and should be factored into maternal health policy.

Another implication of this finding is that policies aimed solely at removing user fees may not adequately reduce the financial strain on households. As Banke-Thomas et al. (2021) argue, accessibility encompasses both affordability and opportunity costs. This study's demonstration that indirect costs nearly matched direct expenditures suggests that Ghana's policy may have overemphasized formal charges while neglecting the broader economic realities women face.

Moreover, the prominence of absenteeism-related productivity loss points to gendered economic vulnerabilities. Since most respondents were traders or artisans in the informal sector, missing days of work translated into immediate income loss without any form of compensation or job security. This contrasts with women in salaried employment, who may have access to maternity leave.

Thus, the present findings extend existing literature by underscoring the dual burden of both direct and indirect costs meaning that free maternal healthcare in Ghana cannot be said to provide comprehensive financial protection.

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5.4 Perceptions and Experiences of Policy Implementation

Qualitative data revealed that women felt misled by the policy label of "free," as they continued to pay for laboratory services, scans, and medications. Many expressed dissatisfactions with health worker attitudes and long waiting times, concerns that mirror global findings on mistreatment and disrespect during childbirth (Banke-Thomas et al., 2021).

Interestingly, while Alatinga et al. (2024), emphasize increased maternal healthcare utilization due to the policy, this study nuances that claim by showing that utilization has indeed risen but at the cost of hidden financial burdens and quality concerns. This confirms Dalinjong et al. (2018), who noted that increased coverage in Ghana was not matched by improved equity or service quality.

Healthcare providers in this study attributed out-of-pocket payments to delayed NHIA reimbursements and lack of logistics, which echoes Orangi et al. (2021) who found that underfunded facilities in Ghana often shifted costs back to patients informally. The NHIA officers confirmed these gaps, admitting that enforcement of compliance was weak.

A further concern that emerged was the perception of stigma attached to using "free" services. Several women reported feeling neglected or disrespected by healthcare providers, reinforcing Banke-Thomas et al. (2021)'s argument that disrespectful care is both a social and structural issue. This finding is particularly important because negative provider attitudes can deter women from seeking care altogether, thereby undermining the policy's coverage goals.

Moreover, while some respondents acknowledged that the policy had reduced home deliveries and increased antenatal attendance, others feared that continued out-of-pocket payments would erode these gains. Dalinjong et al. (2018) similarly observed that women often resorted to borrowing

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money or delaying care when out-of-pocket payments persisted, thereby increasing risks of adverse maternal outcomes.

5.5 Synthesis and Policy Implications

Taken together, the findings and literature suggest that Ghana's Free Maternal Health Policy has improved coverage and reduced some official charges, but out-of-pocket payments are still significant. Unlike earlier research that emphasized either direct medical charges (Akazili et al., 2018), or rural transportation costs (Dalinjong et al., 2018), this study reveals a more complex picture where non-medical, indirect, and preparedness-related costs weigh heavily on women in peri-urban facilities.

Moreover, while increased utilization is evident, service quality and financial protection remain inadequate. This dual challenge implies that policy reforms must expand NHIA coverage to include non-medical essentials (transportation, bed-preparedness items), must ensure timely NHIA reimbursements to health facilities to prevent informal charges, must strengthen accountability systems to curb out-of-pocket payments and lastly invest in health worker training for respectful maternity care to address negative patient experiences.

Further, the findings suggest the need for a multidimensional approach to maternal healthcare financing. Simply abolishing formal charges does not guarantee equitable access if women continue to face substantial opportunity costs. Policies must therefore integrate economic support mechanisms such as transport vouchers, maternity grants, or targeted subsidies for women in the informal sector. Such interventions have been piloted in countries like Kenya and Malawi, with evidence showing significant improvements in both access and equity (Orangi et al., 2018).

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Finally, the discussion highlights the importance of strengthening health system governance. Without accountability and adequate resourcing, facilities will continue to impose informal charges, and women will remain vulnerable to out-of-pocket payments. This calls for stronger monitoring from NHIA and community-level watchdogs, as well as greater transparency in claims reimbursement. Only through these reforms can Ghana's maternal health financing strategy achieve its intended goal of reducing maternal mortality and improving equity.

5.6 Limitations of Study findings

While this study provides valuable insights into the financial implications of maternal healthcare utilization under the Free Maternal Health Care Policy, it is important to acknowledge some limitations that may shape the interpretation of the findings. The research was conducted in only two government hospitals within the Eastern Region, viz Nsawam and Kibi. Therefore, the results may not fully reflect the broader cost dynamics experienced in diverse health system settings across Ghana. Cost structures, access challenges, and service delivery models often vary between rural and urban facilities, as well as across different regions. Expanding the study to a wider range of health facilities would strengthen the generalizability of the findings.

In addition, the study relied heavily on self-reported data from mothers regarding costs incurred during antenatal, delivery, and postnatal care. While every effort was made to ensure accuracy through careful data collection, the possibility of recall bias cannot be completely ruled out. Participants may have unintentionally underestimated or overestimated the expenses. Future studies that triangulate self-reported data with hospital expenditure records, NHIS claims, or other administrative data sources would help to validate and enrich these findings. Despite these, the study offers an important evidence base for understanding the persistent financial burden women

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face under a policy that is intended to eliminate such costs, and it underscores the urgency for further policy refinement and implementation improvements.

5.7 Chapter Summary

This chapter has critically discussed the findings in relation to the research objectives and existing literature. The study shows that socio-economic inequalities persist among maternal healthcare users, direct and indirect costs remain substantial, and the economic burden undermines the protective intent of the policy. While utilization has improved, systemic gaps such as out-of-pocket payments, poor attitudes, and delays persist. Compared to existing literature, this study provides additional nuance by showing that indirect and preparedness-related costs are as significant as direct medical costs. Thus, Ghana's Free Maternal Health Policy, while impactful, requires redesign to deliver true equity and financial protection.

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CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.0 Chapter Overview

This chapter brings together the key findings of the study and situates them within the broader objectives of the research. It provides a synthesis of the evidence gathered on household costs, direct and indirect expenditures, and the experiences of women and healthcare providers in navigating the Free Maternal Health Care Policy in Abuakwa South and Nsawam Adoagyiri Municipalities. The conclusion highlights how the findings respond to the research questions, emphasizing the persistent financial burdens borne by women despite the existence of a free maternal health care policy. This is followed by recommendations that are designed to be practical, context-specific, and feasible, addressing both policy and practice dimensions. The recommendations point to concrete ways of improving the implementation of the policy to ensure equitable access, reduce out-of-pocket payments, and enhance the overall quality of maternal health services.

6.1 Conclusion

This study is to identify and categorize the types of household cost incurred by women seeking maternal health care services under the free maternal care policy in Abuakwa South and Nsawam Adoagyiri Municipalities under the free maternal health care policy, to estimate the magnitude of these household costs and its financial burden on women seeking maternal health care under the free maternal health care policy and to explore patients' experiences and health providers and managers perspectives on household cost in accessing maternal health care in Abuakwa South and

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Nsawam Adoagyiri Municipalities. Each objective is discussed below with reference to existing literature. The findings are revealing, both in highlighting the policy's successes and exposing persistent challenges that undermine its effectiveness.

With respect to household costs, the study established that women continued to bear significant out-of-pocket expenditures despite being covered by the free maternal health care policy. Pregnant, delivery, and postnatal women reported paying for laboratory services, ultrasound scans, prescribed drugs, feeding, transportation, and preparedness items such as baby items. These expenses, although often categorized as minor, accumulate to create substantial financial burdens for households, particularly for low-income women. This finding is consistent with existing literature that indicates women in LMICs still pay out-of-pocket even when formal user fees are abolished (Banke-Thomas et al., 2021; Dalinjong et al., 2018). The evidence here demonstrates that the goal of complete financial protection has not been fully realized in Ghana, mirroring trends observed in other sub-Saharan African contexts.

The study also provided deeper insight into the distinction between direct and indirect costs. Direct costs, including consultation fees, admission, medication, and diagnostics, constituted the largest share of household expenditures. However, indirect costs such as productivity losses due to absenteeism and time lost in travel or waiting at facilities were equally substantial, accounting for nearly half of the economic burden. This aligns with global evidence that indirect costs often act as hidden deterrents to accessing care, especially among women in informal or subsistence employment (Orangi et al., 2021). For women who rely on daily income-generating activities, even a single day away from work can lead to food insecurity or depletion of household resources. Thus, while the free maternal care policy has alleviated some direct financial barriers, it has not addressed the broader economic realities women face during pregnancy and childbirth.

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Equally important are the experiences of patients and providers in navigating the free maternal health policy. Women often expressed frustration at being asked to pay for services they believed to be free, leading to distrust in the policy framework. For some, these unexpected costs forced reliance on personal savings, borrowing, or even asset sales. Health providers, on the other hand, attributed these costs to systemic challenges such as stock-outs, delayed NHIA reimbursements, and inadequate supply of logistics. Providers argued that in the absence of timely financial support, facilities were compelled to charge clients informally to sustain operations. NHIA officials acknowledged these issues but maintained that maternal services were free under the policy, highlighting a clear disconnect between policy intent and implementation reality.

Taken together, the findings highlight a paradox: the Free Maternal Health Care Policy has successfully increased service utilization, reduced home deliveries, and improved access to antenatal and postnatal care. Yet, its effectiveness is undermined by persistent household costs, indirect economic burdens, and systemic inefficiencies. If these gaps are not addressed, the policy risks perpetuating inequities rather than eliminating them. Women in lower-income households, who are the very targets of the policy, remain most vulnerable to financial hardship, while the broader goal of equitable maternal health outcomes remains elusive.

6.2 Recommendations

6.2.1 Recommendations for Health Facility Management

At the facility level, measures must be taken to ensure that health care providers fully comply with the free maternal health policy. Strengthening accountability systems within hospitals is critical. This can be done by regular internal monitoring committees being tasked to verify that no covered services are charged.

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Facility managers should conduct regular expenditure audits to track patient charges and ensure compliance with NHIS benefit guidelines. Complaints and grievance redress systems should be more visible and accessible and made anonymous, empowering women to report illegal charges without fear of victimization.

Health worker attitudes also emerged as a recurring theme in the study. Some women reported feeling marginalized or neglected because they were accessing "free" services. This undermines trust in the system and discourages utilization. Training programs in respectful maternity care should be institutionalized across facilities, emphasizing empathy, non-discrimination, and patient-centred care. In parallel, performance appraisal systems could include patient satisfaction indicators, incentivizing staff to treat insured patients equitably.

Another practical recommendation is the need to strengthen community education and awareness. Many women in the study were unaware of their full entitlements under the NHIS, leaving them vulnerable to unnecessary charges. Health facilities should collaborate with community health workers and local leaders to organize regular sensitization sessions, ensuring that women are educated on the Free Maternal Health Care Policy. Enhancing awareness of the FMHCP will inherently improve understanding of entitlements under NHIS, as the policy is implemented through the NHIS framework services covered and the complaint mechanisms available. By enhancing transparency, communities can serve as watchdogs against informal charging practices.

Indirect costs also require targeted attention. The Municipal assemblies should collaborate with the health facilities to improve transportation access in the form of community ambulance services, easy and readily accessible locations of maternity waiting rooms and additionally consider improving the distribution of facilities at community level. Local NGOs and other organizations

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could consider piloting targeted support schemes such as transport subsidies for women in very remote and deprived communities. By addressing both medical and non-medical costs, facilities will ensure that women are not only able to access services but also sustain participation throughout the continuum of maternal care.

6.2.2 Recommendations for Policy Development

At the policy level, several urgent reforms are required. First, timely reimbursement of claims by the NHIA is essential to prevent health facilities from shifting costs onto clients. Chronic delays in payments erode trust in the system and encourage informal practices. Establishing a more efficient claims processing mechanism, supported by digital platforms and real-time verification, could reduce backlogs and enhance compliance. Second, the NHIS benefit package should be revised to reflect the true cost of maternal care. Services such as diagnostic scans, maternity clothing, and essential drugs that are often excluded should be explicitly covered to minimize out-of-pocket payments. In addition, a review of tariffs for covered services should be undertaken to ensure that reimbursements align with actual market costs, reducing the incentive for facilities to impose top-up fees. Publishing period reports on FMHCP compliance at the district and facility levels could also go a long to present some accountability to the system.

Again, the policy must begin to address indirect costs in more systematic ways. Introducing conditional cash transfers, transport stipends, or productivity protection schemes for pregnant women could provide additional financial protection, particularly for women in informal employment. For instance, Kenya's "Linda Mama" programme introduced transport vouchers and maternal travel reimbursements to disburden women in select rural communities. In the same vein, Malawi's maternal voucher scheme subsidized transport and basic delivery by leveraging on

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collaborations with some district organizations and other social groups. These interventions engage evidence to point out that targeted financial support is feasible in the maternal care narratives. Drawing lessons from these models, this would align the policy more closely with Ghana's universal health coverage goals and the global Sustainable Development Goal 3, which emphasizes reducing maternal mortality and achieving financial risk protection. Funding initiatives through the District Health Directorates in Nsawam Adoagyiri and Abuakwa South in the Eastern Region will be effect in protecting women from indirect costs and align the FMHCP with the established global goal, SDG 3. The Ghana Health Service can also liaison with transport unions, NGO/Donor (e.g., USAID, World Bank) to support. The Health Facilities will verify attendance and distribute vouchers/stipends and tracking utilization.

In addition to the above, stronger monitoring and evaluation mechanisms should be instituted. Beyond tracking service utilization, NHIA and the Ministry of Health should monitor patient expenditures, out-of-pocket payments, and provider practices. This can be done by conducting routine checks within the health facilities and verifying all payments accordingly. Regular public reporting of such data would enhance transparency and create pressure for compliance. Civil society organizations and women's groups should also be involved in monitoring, ensuring community voices are included in policy reviews.

Finally, investments in health system strengthening are indispensable. Logistical gaps such as lack of essential supplies, diagnostic equipment, and basic infrastructure create avenues for informal charges and compromise service quality. A more consistent supply chain management system, backed by sustainable financing, is needed to guarantee that facilities are well-equipped to implement the free maternal health care policy in practice and not only in principle.

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In summary, while the Free Maternal Health Care Policy has significantly improved access to maternal services, financial and systemic barriers remain. By implementing the above recommendations, policymakers and practitioners can bridge the gap between policy intent and women lived realities, ensuring that the vision of equitable and truly free maternal health care is achieved.

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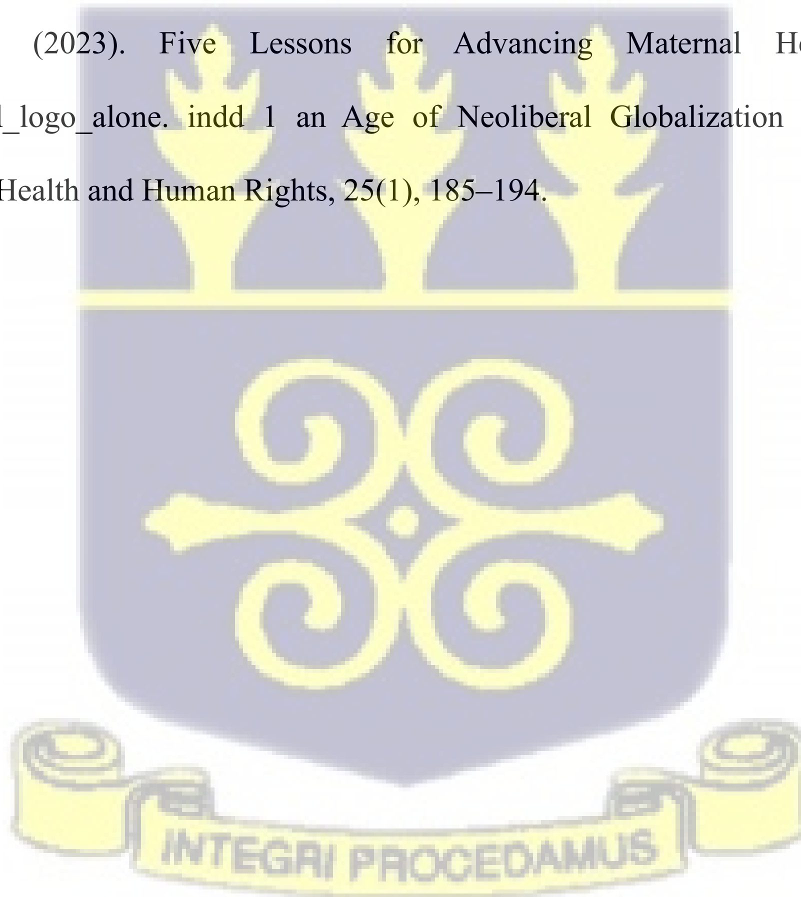

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APPENDIX I: INFORMATION SHEET (MOTHERS)

TITLE OF THE STUDY: "*Assessing household cost of women seeking maternal health care services under free maternal health care policy in Eastern Region of Ghana".*

INTRODUCTION: Dear Respondent, I am Janet Nsorpika, a student from University of Ghana School of Public Health, researching on the topic, "***Assessing household cost of women seeking maternal health care services under free maternal health care policy in Eastern Region of Ghana".*** I am hoping that you can supply me with some information which will be used for research purposes only.

Background and Purpose of the study: The government of Ghana to promote Maternal Health care to decrease maternal deaths, introduced the free maternal care policy under the National Health Insurance Scheme (NHIS) in 2008. This study seeks to examine ***household cost of women seeking maternal health care services under free maternal health care policy in Eastern Region of Ghana"*** and how it affects utilization of service. It will also explore the perspective on mothers on these cost on under free maternal care services in Ghana.

Nature of the Study: This is a Quantitative and qualitative research *Assessing household cost of women seeking maternal health care services under free maternal health care policy in Eastern Region of Ghana".* Participants will be recruited from the two municipal hospitals who are receiving care under the free maternal health care policy. About 400 participants will be recruited for the qualitative aspect of the study, and for the qualitative study, in-depth interviews will be conducted at the two municipal hospitals, 12 participants of the women seeking maternal services will be interviewed: 6 from each hospital.

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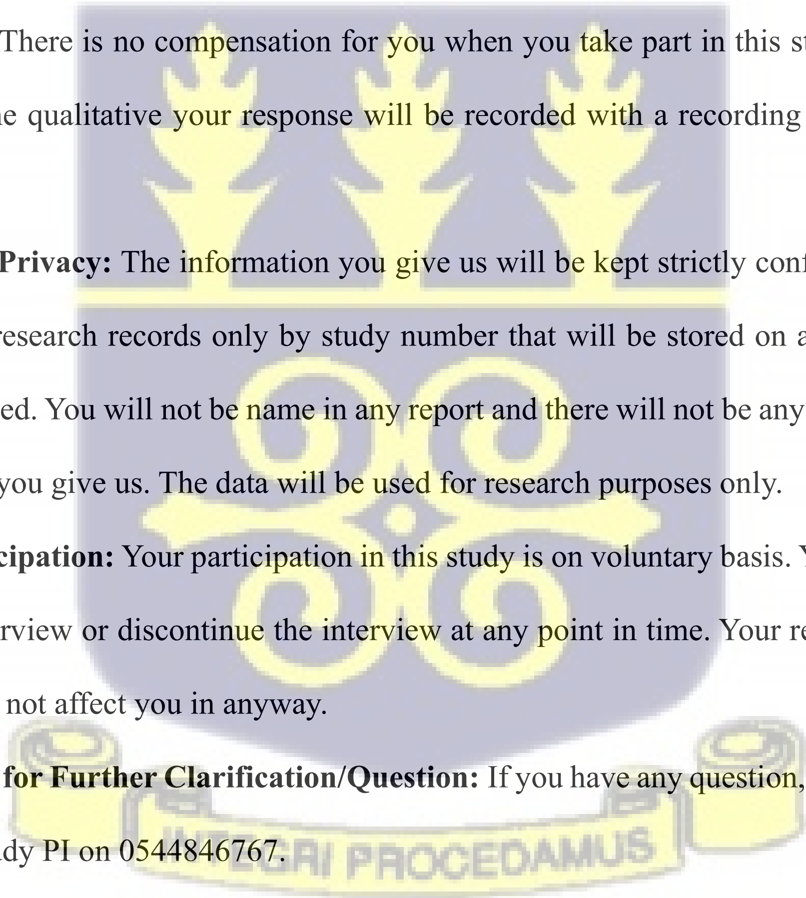
Participants Involvement:

Duration: A total of six weeks is estimated time for collection of data for the study and a maximum of 30 minutes and 45 minutes will be used in interviewing on quantitative and qualitative data collection respectively.

Potential Risk: There are no known direct risks in this study. However, if in any instance you feel uncomfortable about any information, you may kindly not talk about it as this is not my intent.

Benefits: You will not get any direct benefit but your responses might help in formulating and implementing new policy to improve free maternal health care policy.

Cost: There will be no cost participants.



Compensation: There is no compensation for you when you take part in this study. If you agree to take part in the qualitative your response will be recorded with a recording device with your permission.

Confidentiality/Privacy: The information you give us will be kept strictly confidential; you will be identified in research records only by study number that will be stored on a computer that is password protected. You will not be name in any report and there will not be any link between you and the answers you give us. The data will be used for research purposes only.

Voluntary participation: Your participation in this study is on voluntary basis. You have the right to refuse the interview or discontinue the interview at any point in time. Your refusal to take part in this study will not affect you in anyway.

Who to Contact for Further Clarification/Question: If you have any question, you may ask now or contact the study PI on 0544846767.

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Contact Information for Questions about Your Right as a Research Participant.

This research has been reviewed and approved by the Ghana Health Service Ethics Review Committee. If you have any questions about your rights as a research participant, or wish to obtain information, ask questions or discuss concerns about this study with someone other than the researcher, please contact the following, the administrator of Ghana Health Service Ethics Review Committee Ms. Nana Abena Apatu on 0503539896.

ALL COVID-19 PROTOCOLS WILL BE OBSERVERED.

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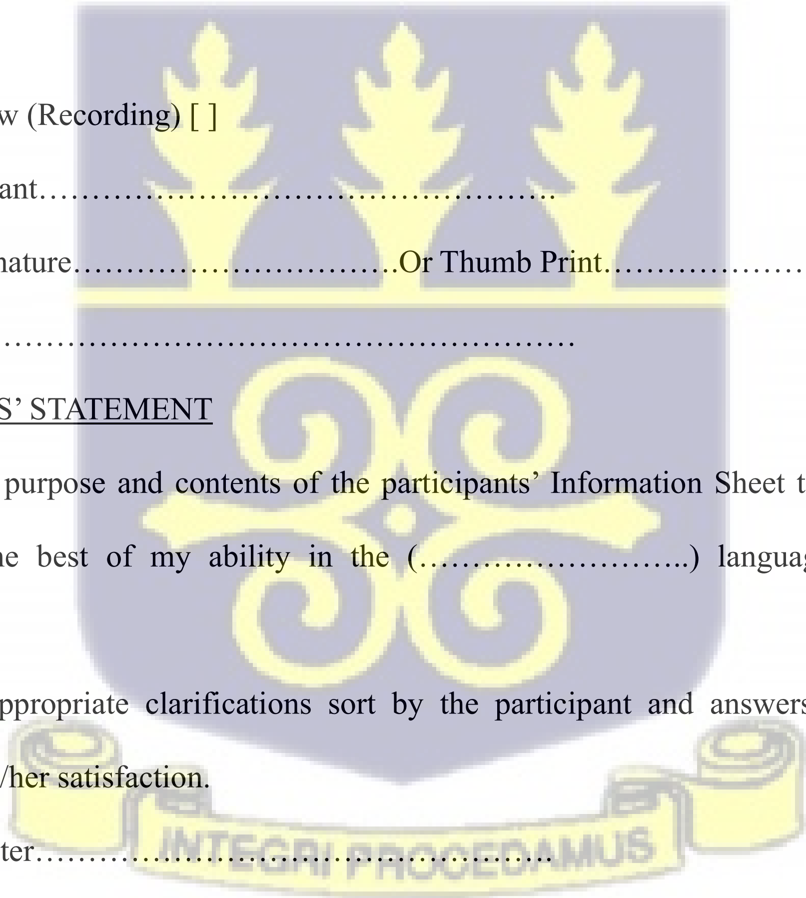
APPENDIX II: CONSENT FORM

STUDY TITLE: Assessing household *cost of women seeking maternal health care services under free maternal health care policy in eastern region of Ghana”.*

PARTICIPANTS’ STATEMENT

I acknowledge that I have read or have had the purpose and contents of the participants’ Information Sheet read and all questions satisfactorily explained to me in a language I understand (…………………) language. I fully understand the content and any potential implications as well as my right to change my mind (i.e. Withdraw from the research) even after I have signed this form I voluntarily agree to be part of this research.



Survey [ ]

In-depth interview (Recording) [ ]

Name of participant…………………………………………….

Participants’ Signature…………………………Or Thumb Print………………………….

Date…………………………………………………………

INTERPRETERS’ STATEMENT

I interpreted the purpose and contents of the participants’ Information Sheet to the fore named participant to the best of my ability in the (……………………..) language to his proper understanding.

All questions, appropriate clarifications sort by the participant and answers were also duly interpreted to his/her satisfaction.

Name of interpreter…………………………………………….

Signature……………………………..Or Thumbprint……………………………………

Date….

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STATEMENT OF WITNESS

I was present when the purpose and contents of the participant Information Sheet was read and explained satisfactorily to the participant in the language he/she understood (……………) I confirm that he/she was given the opportunity to ask questions/seek clarifications and same were duly answered to his/her satisfaction before voluntarily agreeing to be part of the research.

Name…………………………………………………….

Signature……………………………..Or Thumbprint……………………………………

Date….

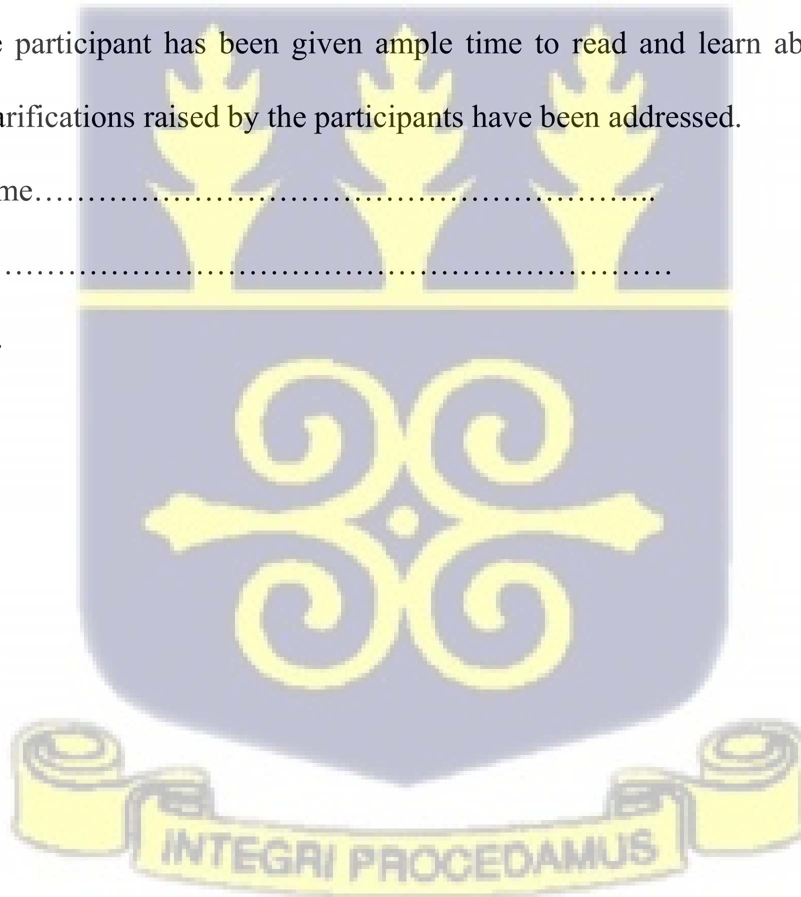
INVESTIGATOR STATEMENT AND SIGNATURE

I certify that the participant has been given ample time to read and learn about the study. All questions and clarifications raised by the participants have been addressed.

Researcher's Name…………………………………………………..

Signature……………………………………………………………

Date……………



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APPENDIX III: INFORMATION SHEET (FOR HEALTH PROVIDERS)

TITLE OF THE STUDY Assessing household *cost of women seeking maternal health care services under free maternal health care policy in eastern region of Ghana".*

INTRODUCTION: Dear Respondent, I am Janet Nsorpika, a student from University of Ghana School of Public Health, researching on the topic, "Assessing household *cost of women seeking maternal health care services under free maternal health care policy in eastern region of Ghana".* I am hoping that you can supply me with some information which will be used for research purpose only.

Background and Purpose of the study: The government of Ghana in order to promote Maternal Health care to decrease maternal deaths, introduced the free maternal care policy under the National Health Insurance Scheme (NHIS) in 2008. This study seeks to assess the household *cost of women seeking maternal health care services under free maternal health care policy* and how it affects utilization of service. It will also explore the perspective on additional cost on free maternal care in Ghana.

Nature of the Study: This is a Quantitative and qualitative research on *Assessing household cost of women seeking maternal health care services under free maternal health care policy in Eastern Region of Ghana*.

Participants Involvement:

Duration: A total of six weeks is estimated time for collection of data for the study and a maximum of 45 minutes will be used in this interview.

Potential Risk: There are no known direct risks in this study. However, if in any instance you feel uncomfortable about any information, you may kindly not talk about it as this is not my intent.

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Benefits: You will not get any direct benefit but your responses might help in formulating and implementing new policy to improve free maternal health care policy.

Cost: There will be no cost participants.

Compensation: There is no compensation for you when you take part in this study. If you agree to take part in this study your response will be recorded with a recording device with your permission.

Confidentiality/Privacy: The information you give us will be kept strictly confidential you will be identified in research records only by study number that will be stored on a computer that is password protected. You will not be name in any report and there will not be any link between you and the answers you give us. The data would also be used for research purposes only.

Voluntary participation: Your participation in this study is on voluntary basis. You have the right to refuse the interview or discontinue the interview at any point in time. Your refusal to take part in this study will not affect you in anyway.

Who to Contact for Further Clarification/Question: If you have any question, you may ask now or contact the study PI on 0544846767.

Contact Information for Questions about Your Right as a Research Participant: This research has been reviewed and approved by the Ghana Health Service Ethics Review Committee. If you have any questions about your rights as a research participant, or wish to obtain information, ask questions or discuss concerns about this study with someone other than the researcher, please contact the following, the administrator of Ghana Health Service Ethics Review Committee, Ms. Nana Abena Apatu on 0503539896.

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APPENDIX IV: CONSENT FORM

STUDY TITLE: **"Assessing household** ***cost of women seeking maternal health care services under free maternal health care policy in eastern region of Ghana"***

PARTICIPANTS' STATEMENT

I acknowledge that I have read or have had the purpose and contents of the participants' Information Sheet read and all questions satisfactorily explained to me in a language I understand (…………………) language. I fully understand the content and any potential implications as well as my right to change my mind (i.e. Withdraw from the research) even after I have signed this form I voluntarily agree to be part of this research.

Name of participant……………………………………………

Participants' Signature…………………………Or Thumb Print………………………….

Date…………………………………………………………

INVESTIGATOR STATEMENT AND SIGNATURE

I certify that the participant has been given ample time to read and learn about the study. All questions and clarifications raised by the participants have been addressed.

Researcher's Name…………………………………………………..

Signature……………………………………………………………

Date………………………………………………………………

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APPENDIX V: INFORMATION SHEET (FOR NATIONAL HEALTH INSURANCE DISTRICT OFFICERS)

TITLE OF THE STUDY Assessing household *cost of women seeking maternal health care services under free maternal health care policy in eastern region of Ghana".*

INTRODUCTION: Dear Respondent, I am Janet Nsorpika, a student from University of Ghana School of Public Health, researching on the topic, "Assessing household *cost of women seeking maternal health care services under free maternal health care policy in eastern region of Ghana".* I am hoping that you can supply me with some information which will be used for research purpose only.

Background and Purpose of the study: The government of Ghana in order to promote Maternal Health care to decrease maternal deaths, introduced the free maternal care policy under the National Health Insurance Scheme (NHIS) in 2008. This study seeks to assess the household *cost of women seeking maternal health care services under free maternal health care policy* and how it affects utilization of service. It will also explore the perspective on additional cost on free maternal care in Ghana.

Nature of the Study: This is a Quantitative and qualitative research on *Assessing household cost of women seeking maternal health care services under free maternal health care policy in Eastern Region of Ghana***.**

Participants Involvement:

Duration: A total of six weeks is estimated time for collection of data for the study and a maximum of 45 minutes will be used in this interview.

Potential Risk: There are no known direct risks in this study. However, if in any instance you feel uncomfortable about any information, you may kindly not talk about it as this is not my intent.

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Benefits: You will not get any direct benefit but your responses might help in formulating and implementing new policy to improve free maternal health care policy.

Cost: There will be no cost participants.

Compensation: There is no compensation for you when you take part in this study. If you agree to take part in this study your response will be recorded with a recording device with your permission.

Confidentiality/Privacy: The information you give us will be kept strictly confidential you will be identified in research records only by study number that will be stored on a computer that is password protected. You will not be name in any report and there will not be any link between you and the answers you give us. The data would also be used for research purposes only.

Voluntary participation: Your participation in this study is on voluntary basis. You have the right to refuse the interview or discontinue the interview at any point in time. Your refusal to take part in this study will not affect you in anyway.

Who to Contact for Further Clarification/Question: If you have any question, you may ask now or contact the study PI on 0544846767.

Contact Information for Questions about Your Right as a Research Participant.

This research has been reviewed and approved by the Ghana Health Service Ethics Review Committee. If you have any questions about your rights as a research participant, or wish to obtain information, ask questions or discuss concerns about this study with someone other than the researcher, please contact the following, the administrator of Ghana Health Service Ethics Review Committee, Ms. Nana Abena Apatu on 0503539896.

ALL COVID-19 PROTOCOLS WILL BE OBSERVERED.

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APPENDIX VI: CONSENT FORM

STUDY TITLE: **"Assessing household *cost of women seeking maternal health care services under free maternal health care policy in eastern region of Ghana"***

PARTICIPANTS' STATEMENT

I acknowledge that I have read or have had the purpose and contents of the participants' Information Sheet read and all questions satisfactorily explained to me in a language I understand (…………………) language. I fully understand the content and any potential implications as well as my right to change my mind (i.e. Withdraw from the research) even after I have signed this form I voluntarily agree to be part of this research.

Name of participant……………………………………………

Participants' Signature…………………………Or Thumb Print…………………………….

Date………………………………………………………………

INVESTIGATOR STATEMENT AND SIGNATURE

I certify that the participant has been given ample time to read and learn about the study. All questions and clarifications raised by the participants have been addressed.

Researcher's Name……………………………………………………..

Signature…………………………………………………………………

Date………………………………………………………………………

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APPENDIX VII: QUANTITATIVE QUESTIONNAIRE

SCHOOL OF PUBLIC HEALTH, UNIVERSITY OF GHANA

Patient Information (to be filled in by Interviewer with the help of patient.	
SECTION A – DEMOGRAPHIC INFORMATION *(Please I will like to ask you some questions about yourself.)*	
(1) Sex:	
(2) Age of participant:	
(3) Marital status:	[] Single [] Married [] Divorced [] Widow [] Separated [] Co-habitation
4. Educational Background:	[] No education [] Primary [] JHS/Middle school [] SHS/O'level [] Tertiary
5. Occupation:	[] Public servant [] Private/NGO [] Farming/Agriculture [] Artisan [] Unemployment
6. Average income per month:	
7. In total how many children do you have?	
8. Since 2008 when the policy was implemented, how many children have you had?	
SECTION B: AWARENESS AND UNDERSTANDING OF THE POLICY *Please I will like to ask you questions about awareness and understanding of free maternal health policy.*	
9. Are you aware of the free maternal health care policy?	[] Yes [] No
9b. if yes where did you first learn about this policy?	[] On television [] Radio

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	[] Health provider [] Family and friends [] Social media or internet [] Cannot remember [] Other specify
10. What specific services are you aware are covered under the free maternal care policy? (check all that apply)	[] Consultation, [] Drugs, [] Surgery, [] Counselling, [] Registration/folder, [] Laboratory test, [] Scan, [] Incubation services [] Neonatal care (NICU) [] other, specify_________
11. Have you utilized maternal healthcare services under the free policy since your most recent pregnancy?	[] Yes [] No
12. Do beneficiaries have access to free emergency Obstetric care and complications management?	[] Yes [] No [] I do not know
Section C: Access/Utilization and Cost of Maternal Health Services *(Thank you very much, Please the following questions I am about to ask you refers to since conception of your recent pregnancy).*	
13. Do you have active National Health Insurance?	[] Yes [] No
14. How many times have you used your national health insurance to access maternal health service since your recent pregnancy?	No. of times________
15. Since your recent pregnancy, have you paid out-of-pocket for accessing maternal health care service even though you have active national health insurance?	[] Yes [] No

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15a. if yes what services did you have to pay for?	[] Consultation, [] Drugs, [] Surgery, [] Counselling, [] Registration/folder, [] Laboratory test, [] Diagnostic/scan, [] Incubation services [] Neonatal care (NICU) [] other, specify_________

16. How many visits for maternal health care services have you done since your current pregnancy?	------------
17. What service did you come today for? *(If antenatal services ask the following questions; (if delivery skip to question 29, if postnatal skip to question 36)*	[] Antenatal [] Delivery [] Post-natal
ANTENATAL *(The following questions are referring to since conception of your recent pregnancy)*	
18. How many times have you received antenatal care?	__________________
For each of the antenatal visit, ask the following questions;	
19. Did you use your National Health Insurance (NHIS)?	[] Yes [] No
20. Did you pay for consultation?	[] Yes [] No [] Can't remember
a. How many times have you experienced this since you started coming for antenatal care?	__________times
b. How much on average did you pay for consultation in your previous visits?	GHS__________

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c. Was the cost incurred full or part payment	[] Full payment [] Part payment/top up [] Don't know
21. Did you pay for medication?	[] Yes [] No [] Can't Remember
a. How many times have you experienced this since you started coming for antenatal care?	__________times
b. Did you receive all your medications from the hospital's pharmacy/dispensary? (if No, skip to Q22)	[] Yes [] No [] Can't remember
c. If yes, did you pay for any of the medications in your previous visits?	[] Yes [] No [] Can't remember
d. How much on average did you pay for medication in your previous visits?	GHS__________

e. Was the cost incurred full or part payment/top up?	[] Full payment [] Part payment/top up [] Don't know
22. Did you go and buy the medications from outside the hospital (e.g., community pharmacy, over the counter medicine seller shop)?	Yes No
a. Did you pay for any of the medication out-of-pocket at the community pharmacy/over the counter medicine seller shop?	Yes No
23. Did you incur any cost for laboratory test?	[] Yes [] No [] Can't Remember
a. How many times have you experienced this since you started coming for antenatal care?	__________times
b. Did you get all your laboratory test done from the hospital lab? (if No, skip to Q24)	[] Yes [] No [] Can't remember
c. If yes, did you pay for any of the laboratory test in your previous visits?	[] Yes [] No [] Can't remember
d. How much on average did you pay for laboratory test in your previous visits?	GHS__________

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e. Was the cost incurred full or part payment	[] Full payment [] Part payment/top up [] Don't Know
24. Did you incur any of your laboratory test outside the hospital?	[] Yes [] No
a. How much did you pay for it in your previous hospital?	GH S___________
b. Was the cost incurred full or part payment	[] Full payment [] Part payment/top up [] Don't Know
25. Did you incur any cost on ultrasound/ scan?	[] Yes [] No [] Can't Remember
a. How many times have you experienced this since you started coming for antenatal care?	__________times
b. How much on average did you pay for scan in your previous visits?	GH S__________

c. Was the cost incurred full or part payment	[] Full payment [] Part payment/top up [] Don't know
26. Did you incur any cost on antenatal record books/registration?	[] Yes [] No [] Can't Remember
a. How many times have you experienced this since you started coming for antenatal care?	__________times
b. How much on average did you pay for registration in your previous visits?	GHS__________
c. Was the cost incurred full or part payment	[] Full payment [] Part payment/top up []Don't know
27. Did you incur any cost on urine bottles?	[] Yes [] No [] Can't Remember
a. How many times have you experienced this since you started coming for antenatal care?	__________times

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b. How much on average did you pay for the urine bottle in your previous visits?	GH S__________
c. . Was the cost incurred full or part payment	[] Full payment [] Part payment/top up [] Don't know
28. Did you incur any cost on vaccine?	[] Yes [] No
a. How many times have you experienced this since you started coming for antenatal care?	__________times
b. How much on average did you pay for medication in your previous visits?	GH S__________
c. Was the cost incurred full or part payment	[] Full payment [] Part payment/top up [] Don't know
29. Were you referred to see a specialist?	[] Yes [] No [] Can't Remember
a. How many times have you been referred to see a specialist since you started coming for antenatal care?	__________times

b. How much on average did you pay for seeing the specialist in your previous visits?	GHS__________
c. Was the cost incurred full or part payment	[] Full payment [] Part payment/top up [] Don't know
30. Did you incur cost on any other antenatal services?	[] Yes [] No [] Can't Remember
a. What other services? (mention them)	_______________
b. How much on average did you pay for on these services in your previous visits? *(this question will apply to each of the items she mentions one after the other)*	GH S__________
c. Was the cost incurred full or part payment	[] Full payment [] Part payment/top up [] Don't know

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NON-MEDICAL COST	
31. How long does it take you to get to this facility? (one way)	________________
32. Did you incur any transportation costs to come to the health facility for maternal health services?	[] Yes [] No
a. If yes, how much did you incur on transportation (one-way).	GHS_________
b. Will you pay the same amount back home?	[] Yes [] No
33. On the average how long do you spend in the hospital receiving antennal care (a day)?	______________
34. On the average how much do you spend on food and water when you come to the hospital to receive antenatal care (a day)?	GHS___________
35. Did you incur any cost for purchasing maternity clothing?	[] Yes [] No
a. How much?	GHS____________

INDIRECT COST	
(The following questions are referring to since your recent pregnancy)	
36. How many days have you been absent from work due to seeking antenatal care?	_________days
37. On average how much time did you spend traveling to and from seeking antenatal care?	______hrs_______mins
a. How many visits have you made during your recent pregnancy	_______days

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38. On average how much time did you spend at the facility seeking antenatal care (i.e. waiting to be seen doctor, going for lab test, medicines, etc.)?	________hrs_______mins
a. How many visits	_______
39. Is somebody (relative/friend) taking care of you whilst receiving care?	[] Yes [] No
(if yes as the following questions: caregiver)	
40. How many days have you been absent from work in order to give care to your Patient (Relative)?	____________days
41. How much time did you spend traveling to and from the facility to care for your patient?	_____hrs_______mins
42. How much time did you spend in the facility to care for your patient?	
Access/Utilization and Cost of Maternal Health Services (Current visit) *In this section I would like to ask you some questions on your utilization of maternal health care services and cost incurred during your current visit. (the day of the interview)*	
43. Did you use your national health insurance today?	[] Yes [] No [] N/A

Did you pay out of pocket for the following services?	
44. Consultation	GHS__________
a. Did you pay for full or part?	[] Full payment [] Part payment/top up [] Don't know
45. Drugs	GHS____________

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a. Did you pay for full or part?	[] Full payment [] Part payment/top up [] Don't know
46. Surgery	GHS__________
a. Did you pay for full or part?	[] full-payment [] Part-payment/top up [] Don't know
47. Counselling	GH S___________
a. Did you pay for full or part?	[] Full payment [] Part payment/top up [] Don't know
48. Registration/Folder	GH S___________
a. Did you pay for full or part?	[] Full payment [] Part payment/top up [] Don't know
49. Laboratory test	GH S__________
a. Did you pay for full or part?	[] Full payment [] Part payment/top up [] Don't know
50. Diagnostic/scan	GH S_________
a. Did you pay for full or part?	[] Full payment [] Part payment/top up [] Don't know

51. Incubation	GHS_________
a. Did you pay for full or part?	[] Full payment [] Part payment [] Don't know
52. Neonatal care/NICU	GHS__________

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a. Did you pay for full or part?	[] Full payment [] Part payment [] Don't know
DELIVERY (The following questi iception referring to since your recent pregnanc of	
53. How did you deliver?	[] Vaginal delivery [] Caesarean session
54. Did you use National Health Insurance?	[] No [] Yes
55. Did you incur any cost on consultation?	[] Yes [] No
a. How much?	GHS_________
b. Was the cost incurred full or part payment	[] Full payment [] Part payment/top up [] Don't know
56. Did you pay for medication?	[] Yes [] No [] Can't Remember
a. Did you receive all your medications from the hospital's pharmacy/dispensary? (if No, skip to Q57)	[] Yes [] No [] Can't remember
b. If yes, did you pay for it?	[] Yes [] No [] Can't remember
c. How much?	GHS_________

Was the cost incurred full or part payment/top up?	[] Full payment [] Part payment/top up [] Don't know
57. Did you go and buy the medications from outside the hospital (e.g., community pharmacy, over the counter medicine seller shop)?	Yes No

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a. How much?	GHS____________
b. Was the cost incurred full or part payment	[] Full payment [] Part payment/top up [] Don't know
58. Did you incur any cost on laboratory test?	[] Yes [] No
a. How much?	GH S__________
b. Was the cost incurred full or part payment	[] Full payment [] Part payment/top up [] Don't know
59. Did you incur any cost on scan/ultrasound?	[] Yes [] No
a. How much?	GHS___________
60. Were you referred?	[] Yes [] No
a. How much did you spend at the referral facility, including transportation?	GHS_____________
b. Was the cost incurred full or part payment	[] Full payment [] Part payment/top up [] Don't know
61. Did you incur any cost on admission?	[] Yes [] No [] Not applicable
a. If admitted, how many days did you spend in the hospital?	___________days
b. How much?	GH S___________
c. Was the cost incurred full or part payment	[] Full payment [] Part payment/top up [] Don't know

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62. Did you incur cost on any other delivery supplies? (mention them)	[] Yes [] No
a. How much?	GHS____________
b. Was the cost incurred full or part payment	[] Full payment [] Part payment/top up [] Don't know
NON-MEDICAL COST	
63. How long does it take you to get to this facility? (one way)	_________________
64. Did you incur any transportation costs to come to the health facility for maternal health services?	[ ] Yes [ ] No
a. If yes, how much did you incur on transportation (one-way).	GH S_________
a. Will you pay the same amount back home?	[] Yes [] No
b. If no, how much will you pay back home?	GH S__________
65. Did you incur any cost on food during this visit (current visit)?	[ ] Yes [ ] No [ ] Can't Remember
a. If yes, how much?	GH S…………
66. Did you incur any cost on bed preparedness delivery bag?	[] Yes [] No
a. How much?	GHS____________
INDIRECT COST	

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(The following questions are referring to since your recent pregnancy)	
67. How many days have you been absent from work due to seeking care (delivery)?	_________days
68. On average how much time did you spend traveling to and from to deliver?	______hrs_______mins
69. How many days have you spent here?	_______days
70. On average how much time did you spend at the facility seeking delivery services (i.e. waiting to be seen doctor, going for lab test, medicines, etc.)?	________hrs_______mins
71. Is somebody (relative/friend) taking care of you whilst receiving care?	[] Yes [] No
(if yes as the following questions: caregiver)	
72. How many days have you been absent from work in order to give care to your Patient (Relative)?	____________days
73. How much time did you spend traveling to and from the facility to care for your patient?	_____hrs____mins
74. How much time did you spend in the facility to care for your patient?	
Access/Utilization and Cost of Maternal Health Services (Current visit) *In this section I will like to ask you few questions on your utilization of maternal health care services and cost incurred during your current visit. (the day of the interview)*	

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75. Did you use your national health insurance today	[] Yes [] No

a. If yes, did you use it today?	[] Yes [] No
Did you pay out of pocket for the following services?	
76. *Consultation*	GH S__________
a. Did you pay for full or part?	[] Full payment [] Part payment/top up [] Don't know
77. *Drugs*	GH S____________
a. Did you pay for full or part?	[] Full payment [] Part payment/top up [] Don't know
78. *Surgery*	GH S__________
a. Did you pay for full or part?	[] full-payment [] Part-payment/top up []Don't know
79. Counselling	GHS___________
a. Did you pay for full or part?	[] Full payment [] Part payment/top up [] Don't know
80. Registration/Folder	GHS___________
a. Did you pay for full or part?	[] Full payment [] Part payment/top up [] Don't know
81. Laboratory test	GHS__________

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a. Did you pay for full or part?	[] Full payment [] Part payment/top up [] Don't know
82. Diagnostic/scan	GHS_________
a. Did you pay for full or part?	[] Full payment [] Part payment/top up

	[] Don't know
83. Incubation	GHS_________
a. Did you pay for full or part?	[] Full payment [] Part payment/top up [] Don't know
84. Neonatal care/NICU	GH S__________
a. Did you pay for full or part?	[] Full payment [] Part payment/top up [] Don't know
POSTNATAL ***(The following questions are referring to your new-born baby, since you delivered and started postnatal care)***	
85. How many times have you received postnatal care?	______________
(the following questions will be applied to each time she has visited postnatal)	
86. Did incur any cost on consultation?	[] Yes [] No
a. How many times have you experienced this since you started coming for antenatal care?	__________times
b. How much on average did you pay for consultation in your previous visits?	GHS__________

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b. Did you pay for full or part?	[] full-payment [] Part-payment/top up [] Don't know
87. Did you incur any cost on medication?	[] Yes [] No
a. How many times have you experienced this since you started coming for postnatal care?	__________times
b. Did you receive all your medications from the hospital's pharmacy/dispensary? (if No, skip to Q88)	[] Yes [] No [] Can't remember
c. If yes, did you pay for any of the medications in your previous visits?	[] Yes [] No [] Can't remember

d. How much on average did you pay for medication in your previous visits?	GHS__________
88. Did you go and buy the medications from outside the hospital (e.g., community pharmacy, over the counter medicine seller shop)?	[] Yes [] No
a. How much on the average did you pay for your previous visit?	GHS S_______________
89. Did you incur any cost on laboratory test?	[] Yes [] No
a. How many times have you experienced this since you started coming for antenatal care?	__________times
a. Did you get all your laboratory test done from the hospital's laboratory? (if No, skip to Q90)	[] Yes [] No [] Can't remember
b. If yes, did you pay for any of the laboratory test in your previous visits?	[] Yes [] No [] Can't remember
c. How much on average did you pay for laboratory test in your previous visits?	GHS__________
d. Did you pay for full or part?	[] full-payment [] Part-payment/top up [] Don't know

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90. Did you get any of your laboratory test done outside the hospital?	[] Yes [] No
a. If yes, how much on the average did you pay for the labs outside the hospital in your previous visit?	GHS___________
b. Did you pay for full or part?	[] full-payment [] Part-payment/top up [] Don't know
91. Did you incur any cost on scan/ultrasound?	[] Yes [] No
a. How many times have you experienced this since you started coming for antenatal care?	__________times
b. How much on average did you pay for scan in your previous visits?	GH S__________
c. Did you pay for full or part?	[] full-payment [] Part-payment/top up [] Don't know

92. Did you incur any cost on postnatal record books/registration?	[] Yes [] No
a. How many times have you experienced this since you started coming for antenatal care?	__________times
b. How much on average did you pay for registration in your previous visits?	GHS__________
c. Did you pay for full or part?	[] full-payment [] Part-payment/top up [] Don't know
93. Did you incur any cost on urine bottles?	[] Yes [] No
a. How many times have you experienced this since you started coming for antenatal care?	__________times
b. How much on average did you pay for urine bottles in your previous visits?	GHS__________
c. Did you pay for full or part?	[] full-payment [] Part-payment/top up

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	[] Don't know
94. Did you incur any cost on immunization? (e.g. BCG, polio Hepatitis B, Tetanus, Rotavirus)	[] Yes [] No
a. How many times have you experienced this since you started coming for antenatal care?	__________times
b. How much on average did you pay for immunization in your previous visits?	GHS__________
c. Did you pay for full or part?	[] full-payment [] Part-payment/top up [] Don't know
95. Did you incur cost on any other supplies?	[]Yes []No
a. If yes mention them?	_________________
b. How many times have you experienced this since you started coming for antenatal care?	__________times
c. How much on average did you pay for each of the supplies in your previous visits?	GHS__________

d. Did you pay for full or part?	[] full-payment [] Part-payment/top up [] Don't know
NON-MEDICAL COST	
96. How long does it take you to get to this facility? (one way)	_______hrs______mins
97. Did you incur any transportation costs to come to the health facility for postnatal services?	[ ] Yes [ ] No
a. If yes, how much did you incur on transportation (one-way).	GHS_________

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b. Will you pay the same amount back home?	[] Yes [] No
e. If no, how much will you pay back home?	GHS____________
f. How many times (visits)?	_________times
98. On the average, how long do you spend in the hospital to receive postnatal care service	_______hrs______mins
99. Did you incur any cost on food during this visit?	[ ] Yes [ ] No [ ] Can't Remember
a. If yes, how much?	GHS…………
INDIRECT COST	
(The following questions are referring to since your recent pregnancy)	
100. How many days have you been absent from work due to seeking postnatal care?	_________days

101. On average how much time did you spend traveling to and from seeking postnatal care?	______hrs_______mins
a. How many visits?	_______
102. On average how much time did you spend at the facility seeking postnatal care (i.e. waiting to be seen doctor, going for lab test, medicines, etc.)?	________hrs_______mins
a. How many visits	_______
103. Is somebody (relative/friend) taking care of you whilst receiving care?	[] Yes [] No

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(if yes as the following questions: caregiver)	
104. How many days have you been absent from work in order to give care to your Patient (Relative)?	____________days
105. How much time did you spend traveling to and from the facility to care for your patient?	_____hrs____mins
106. How much time did you spend in the facility to care for your patient?	
Access/Utilization and Cost of Maternal Health Services (Current visit) *In this section I will like to ask you some few questions on your utilization of maternal health care services and cost incurred during your current visit.*	
107. Did you use National Health insurance today?	[] Yes [] No
Did you pay out of pocket for the following services?	
108. *Consultation*	GHS__________
a. Did you pay for full or part?	[] Full payment [] Part payment [] Don't know
109. *Drugs*	GHS____________
a. Did you pay for full or part?	[] Full payment [] Part payment [] Don't know
110. *Surgery*	GHS__________
a. Did you pay for full or part?	[] full-payment [] Part-payment [] Don't know

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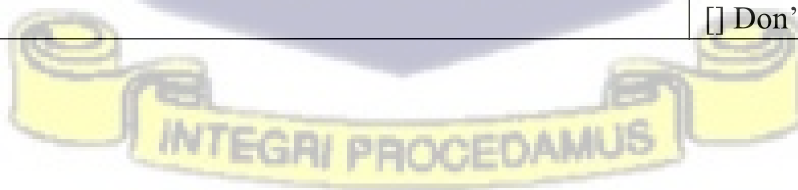
111. Counselling	GHS___________
a. Did you pay for full or part?	[] Full payment [] Part payment [] Don't know
112. Registration/Folder	GH S___________
a. Did you pay for full or part?	[] Full payment [] Part payment [] Don't know
113. Laboratory test	GH S__________
a. Did you pay for full or part?	[] Full payment [] Part payment [] Don't know
114. Diagnostic/scan	GHS_________
a. Did you pay for full or part?	[] Full payment [] Part payment [] Don't know
115. Incubation	GHS_________
a. Did you pay for full or part?	[] Full payment [] Part payment [] Don't know
116. Neonatal care/NICU	GHS__________
a. Did you pay for full or part?	[] Full payment [] Part payment [] Don't know



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APPENDIX VIII: QUALITATIVE INTERVIEW GUIDE (Health care providers)

SECTION A: DEMOGRAPHIC DATA

Age:	
Sex	
Educational Background:	
Ethnicity:	
Religion	
How many years have you worked here	
Rank	
Position/role	

Understanding Costs and Services and perception of Cost Burden

1. Kindly tell me about free maternal health care policy under the NHIS?
   (Probe; What are the components of free maternal health care policy, specific services covered, specific service they must pay for).
2. Do you think that under the free maternal health care policy, mothers still make out-of-pocket payments? Have you heard any complaints of out-of-pocket payments from clients?
3. Please share with me some of the direct, indirect cost that women encounter when seeking maternal care services
4. How do you perceive the financial burden of maternal care on households under the current free maternal care policy?
5. Please tell me about how these costs affect the utilization of maternal care services?

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Barriers to Access

6. Please describe barriers and challenges women face in accessing maternal care services, even with the free care policy in place if any?
7. Please mention some of the significant changes in maternal and neonatal health outcomes in this region since the implementation of the free care program.

Provider Experiences / Support

8. Please explain how you handle situations where women are unable to pay for certain services or supplies?

   Probe; Are there any forms of support? Source of support?

Policy and Implementation

9. How do you perceive the implementation and effectiveness of the free maternal care policy?

Recommendations for Improvement

10. What do you recommend to help reduce costs associated with maternal care under the free care program?
11. In your opinion, what are the key factors that need to be addressed to ensure the sustainability and effectiveness of the free maternal care policy?
12. How can policy makers better support healthcare providers in minimizing costs for maternal care services?
13. Any other comments you have to help improve the policy?

Thank you for your time

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APPENDIX IX: QUALITATIVE INTERVIEW GUIDE (Mothers and expectant mothers)

SECTION A: DEMOGRAPHIC DATA

Age:	
Sex	
Educational Background:	
Ethnicity:	
Religion	
Occupation	

Access and Awareness

1. Please kindly tell me how you first learn about the free maternal care policy?
2. Describe your experiences in accessing antenatal, delivery, and postnatal care services under the free care program?

Understanding of Covered Services/ Perception of Financial Burden

3. What are the specific services you receive for free during your antenatal, delivery, and postnatal care?

Probe; any services or supplies that you had to pay for; drugs, labs, scan, registration, consultation, transportation, food, admission, vaccines,)

4. How has these additional costs affected your financial situation?
5. How would you describe your financial burden associated to with your attendance? **Quality of Care**

6. In your opinion, what are the quality of maternal health care women received under the free maternal care policy?

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Support and Assistance

6. Describe the form of support you received during your most recent pregnancy? Probe; type of support, source of support, reasons for support, how has this reduce your household cost?

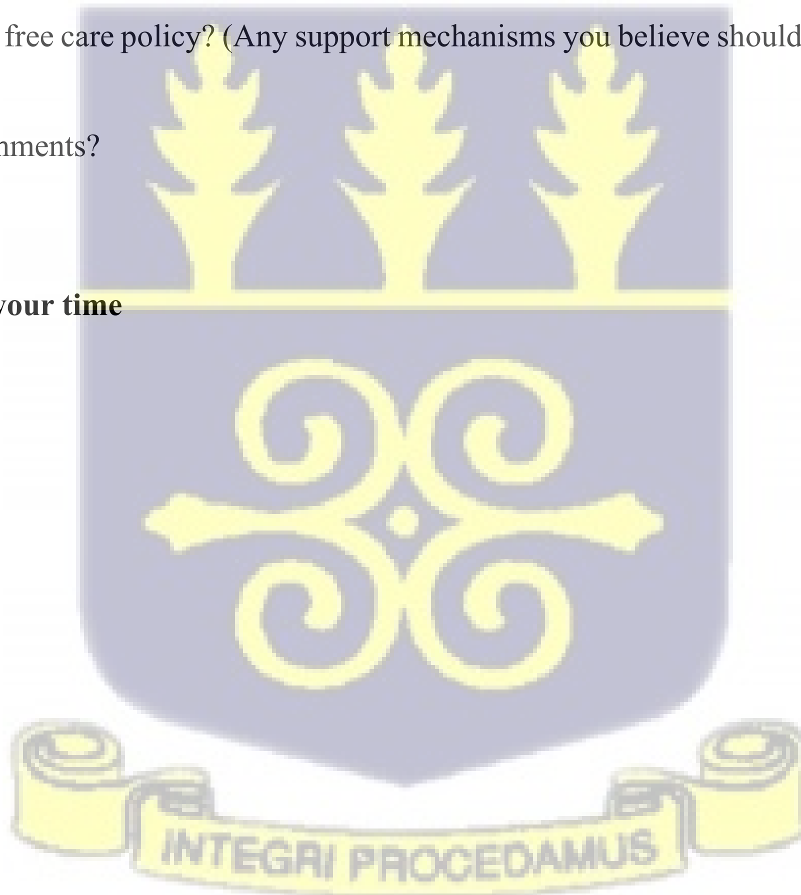
Barriers to Access

6. Explain the challenges or barriers you faced in accessing maternal care services, even with the free care policy? How did these barriers affect the overall costs incurred?

Recommendation

8. In your opinion, what recommendation will you suggest to reduce costs associated with maternal care under the free care policy? (Any support mechanisms you believe should be included in the policy?)
9. Any other comments?

Thank you for your time



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APPENDIX X: QUALITATIVE INTERVIEW GUIDE (National health insurance district officers)

SECTION A: DEMOGRAPHIC DATA

Age:	
Sex	
Educational Background:	
Ethnicity:	
Religion	
How many years have you worked here	
Rank	
Position/role	

Understanding Costs and Services and perception of Cost Burden

1. Kindly tell me about free maternal health care policy under NHIS?
   (Probe; What are the components of free maternal health care policy, specific services covered, specific service they must pay for).
2. Do you think that under the free maternal health care policy, mothers still make out-of-pocket payments? Have you heard any complaints of out-of-pocket payments from clients?

Barriers to Access

3. Please describe barriers and challenges women face in accessing maternal care services, even with the free care policy in place if any?

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4. Please mention some of the significant changes in maternal and neonatal health outcomes in this region since the implementation of the free care program?

Implementation and Challenges

5. What are the challenges faced by the NHIA at the district level in implementing the free maternal health care policy?
6. How does the National Health Insurance Authority (NHIA) address issues related to out-ofpocket payments that are covered by the policy?

Policy and Implementation/Financial management

7. How do you perceive the implementation and effectiveness of the free maternal care policy? Financial Management:
8. Are there any discrepancies between the funds allocated for maternal health care and the actual expenses incurred by expectant mothers?
9. What recommendations do you have for improving the free maternal health care policy to reduce out-of-pocket payments for expectant mothers?
10. Are there any specific policy changes or initiatives that the NHIA is considering to enhance the effectiveness of the free maternal health care policy?

Recommendations for Improvement

11. How can policy makers better support healthcare providers in minimizing costs for maternal care services?

12. Any other comments you have to help improve the policy?

Thank you for your time

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APPENDIX XI: ETHICAL REVIEW APPROVAL LETTER

GHANA HEALTH SERVICE
ETHICS REVIEW COMMITTEE

Research & Development Division
Ghana Health Service
P. O. Box MB 190
Accra.
Digital Address: GA-050-3303

Quote this number and date on all correspondence
My Ref. No: GHS/25/011
Your Ref. No:
Date: 6th January 2025

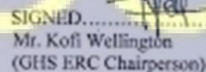
Janet Nsorpika
University of Ghana
P.O. Box LG 13
Legon-Accra

The Ghana Health Service Ethics Review Committee has reviewed and given approval for the implementation of your Study Protocol.

GHS-ERC Number	GHS-ERC: 049/08/24
Study Title	Assessing Household Cost of Women Seeking Maternal Health Care Services Under Free Maternal Health Care Policy in Eastern Region of Ghana.
Approval Date	6th January 2025
Expiry Date	5th January 2026
GHS-ERC Decision	Approved

This approval requires the following from the Principal Investigator

- Submission of a yearly progress report of the study to the Ghana Health Service Ethics Review Committee (GHS ERC)
- Renewal of ethical approval if the study lasts for more than 12 months.
- Reporting of all serious adverse events related to this study to the GHS ERC within three days verbally and seven days in writing.
- Submission of a final report after completion of the study
- Informing GHS ERC if study cannot be implemented or is discontinued and reasons why
- Informing the GHS ERC and your sponsor (where applicable) before any publication of the research findings.
- Please note that any modification of the study without GHS ERC approval of the amendment is invalid.
- The GHS ERC may observe or cause to be observed procedures and records of the study during and after implementation.
- Kindly quote the protocol identification number in all future correspondence in relation to this approved protocol
- **Please note that in the event where samples will be shipped outside Ghana, a signed Material Transfer Agreement should be submitted to the GHS ERC for approval.**
- **Please note that future use of biological samples will require GHS ERC approval and the samples cannot be used for commercial purposes.**



SIGNED...
Mr. Kofi Wellington
(GHS ERC Chairperson)

Cc: The Director, Research & Development Division, Ghana Health Service, Accra