ENSIGN GLOBAL UNIVERSITY, KPONG

EASTERN REGION, GHANA

FACULTY OF PUBLIC HEALTH

DEPARTMENT OF COMMUNITY HEALTH

ANTENATAL CARE AND DELIVERY SERVICES UTILISATION AMONG WOMEN AGED 15–49 YEARS IN ADA WEST DISTRICT, GREATER ACCRA REGION, GHANA

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BY

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MASTER OF PUBLIC HEALTH

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DECLARATION

I, Frederick Dodzi Kofi Afachao, hereby declare that this submission is my own work towards the award of the Master of Public Health (MPH) degree and, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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Dr Sandra Boatemaa Kushitor ……... ……

(Supervisor's Name) **Signature** **Date**

Certified by:

Dr Stephen Manortey …… ……

(Head of Academic Program) **Signature** **Date**

DEDICATION

This work is dedicated to the resilient women of the Ada West District, whose strength, courage, and voices inspired this study.

I also dedicate this thesis to my parents, whose unwavering support, encouragement, and sacrifices laid the foundation for my academic journey. To my family and loved ones, thank you for your patience and belief in me throughout this process.

Finally, this is dedicated to all individuals and institutions committed to improving maternal health in Ghana and beyond. May this research contribute meaningfully to those efforts.

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ABBREVIATION/ACRONYMS

ANC	Antenatal Care
CHPS	Community-Based Health Planning and Services
DHS	Demographic and Health Survey
FMHCP	Free Maternal Healthcare Policy
GHS	Ghana Health Service
HSB	Health-Seeking Behaviour
IPC	Intrapartum Care
IRB	Institutional Review Board
MHSB	Maternal Health-Seeking Behaviour
MICS	Multiple Indicator Cluster Survey
MMR	Maternal Mortality Ratio
NHIS	National Health Insurance Scheme
PNC	Postnatal Care
SDG	Sustainable Development Goal(s)
UHC	Universal Health Coverage
UN	United Nations
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organization

ABSTRACT

Background:

Despite progress in maternal healthcare in Ghana, maternal mortality remains a significant public health concern, particularly in underserved districts. In the Ada West District of the Greater Accra Region, limited research exists on ANC and delivery services utilisation and what factors shape their healthcare behaviours. Improving maternal health outcomes requires a context-specific understanding of the barriers that women face during pregnancy and childbirth.

General Objective: This study examined ANC and delivery service utilisation among women of reproductive age (15–49 years) in the Ada West District, Greater Accra Region, Ghana.

Methods: This study adopted a cross-sectional quantitative design. Data was collected using structured questionnaires deployed via Kobo ToolBox and administered through face-to-face interviews with 362 women who have experienced pregnancy and childbirth within the past three years. Sampling involved a multi-stage approach, targeting participants from health facilities and community settings. Data were analysed using STATA version 18, employing descriptive statistics, bivariate tests, and multivariate logistic regression to identify significant predictors of ANC and delivery utilisation.

Results: The study found a high antenatal care (ANC) utilisation rate of 95.0%, with 80.5% attending regularly and 91.0% completing adequate visits. However, 40.4% of women reported difficulties accessing ANC, primarily due to cost (60.1%). Facility delivery coverage was 81.2%, yet 18.8% of women delivered outside health facilities, predominantly at home (39.7%) or with Traditional Birth Attendants (30.9%).

Conclusion: Despite high antenatal care coverage in the Ada West District, a significant gap remains in converting this contact into facility-based deliveries. The findings underscore that consistent, quality ANC and positive service perceptions are critical for promoting skilled delivery. Interventions must extend beyond encouraging ANC attendance to address financial barriers, reinforce birth preparedness during ANC, and target high-parity and less-educated women to bridge this gap and improve maternal and newborn outcome

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background

Health and well-being are fundamental human needs (Hamzah, Mohd Zulkefli and Ahmad, 2024). The United Nations, through Sustainable Development Goal 3, aims to ensure that everyone can access comprehensive, high-quality healthcare services when needed and without financial difficulty (UN, 2022). This target, referred to as universal health coverage (UHC), includes all healthcare services, such as health promotion, prevention, treatment, rehabilitation, and palliative care (UN, 2022).

In the context of maternal health, Antenatal Care (ANC) is defined as "the utilisation of maternal health services by pregnant women to ensure the health of themselves and their unborn babies" (He *et al.*, 2022). While countries such as Armenia, Jordan, and Sierra Leone report high ANC utilisation rates (>73%), others like Senegal, Chad, and Benin show much lower utilisation (<8%). Improving Antenatal Care and facility delivery is widely recognised as a key strategy in lowering the maternal mortality ratio (MMR) in African countries (He *et al.*, 2022).

According to the World Health Organisation (2023), around 92% of maternal deaths occur in low and lower-middle-income countries. Consequently, Africa is classified as having an extremely high MMR, defined as over 1,000 maternal deaths per 100,000 live births (He *et al.*, 2022). This elevated MMR is linked to factors such as low health expenditure, limited availability and poor quality of maternal health services, and inadequate Antenatal care attendance (Guo *et al.*, 2021a; Guo *et al.*, 2021b).

According to the World Health Organisation (WHO) and UNICEF, the global maternal mortality ratio declined by 40%, from 328 per 100,000 live births in 2000 to 197 per 100,000 in 2023 (UNICEF, 2025; WHO, 2025a). Nevertheless, about 287,000 women continue to die annually due to pregnancy- and childbirth-related complications (WHO, 2025a).

Sub-Saharan Africa experiences the highest share of maternal mortality, accounting for roughly 70% of global maternal deaths (WHO, 2025a). The maternal mortality rate in this region is estimated at 375 per 100,000 live births, far exceeding that of developed countries (WHO, 2023a). This situation is a result of several interrelated factors, including limited access to quality maternal care, under-resourced health systems, and entrenched socio-cultural practices (Muriithi *et al.*, 2022).

Ghana has made notable progress in addressing maternal health issues, although persistent challenges continue to hinder optimal outcomes (Adawudu *et al.*, 2024). A major policy milestone was the launch of the Free Maternal Healthcare Policy (FMHCP) in 2008, implemented through the National Health Insurance Scheme (NHIS) (Adawudu *et al.*, 2024; Kanmiki *et al.*, 2024). The FMHCP aimed to remove financial barriers to maternal health services, thereby improving ANC uptake and promoting facility-based deliveries (Alatinga *et al.*, 2024). Despite the laudable intentions of the FMHCP, practical implementation has revealed that many families still face out-of-pocket expenses, suggesting that the policy does not fully eliminate financial constraints (Alatinga *et al.*, 2024).

Ghana's maternal mortality ratio has decreased significantly, from 943 deaths per 100,000 live births in 2000 to 234 in 2023 (Macrotrends, 2025; World Bank, 2025b). Although this decline places Ghana below the Sub-Saharan African average of 534 per 100,000 live births (WHO, 2023), maternal mortality remains a substantial challenge in achieving the SDGs (Adu, Mulay and

Owusu, 2021). Contributing factors include inadequate access to emergency obstetric care, especially in rural areas, and persistent quality issues in healthcare delivery (Adu, Mulay and Owusu, 2021)

Evidence indicates that while policies like the fee exemption policy have positively impacted maternal health service utilisation, disparities across regions and socio-economic groups still exist (Osei *et al.*, 2025). Other influencing factors include geographic accessibility of healthcare facilities, service quality, financial limitations, women's education, and cultural norms (Aboagye and Agyemang, 2013; Daniels, Anaba and Nettey, 2025).

However, ANC utilisation and facility delivery is not solely dependent on one determinant but several, including maternal household and regional conditions, maternal education, and mass media exposure (He *et al.*, 2022). For instance, literate women are nearly five times more likely to utilise ANC services than those who cannot read or write (Chadoka-Mutanda and Odimegwu, 2017; Ochieng and Odhiambo, 2019). Thus, identifying the determinants of ANC utilisation in Africa is critical to improving maternal health services and reducing the MMR worldwide.

To the best of our knowledge, and based on a review of existing literature, no study has specifically examined ANC and delivery utilisation among women of reproductive age in the Ada West District of the Greater Accra Region, Ghana. This study, therefore, seeks to address this gap by exploring the patterns, determinants, and contextual factors influencing Antenatal care and delivery service utilisation among women in this district.

1.2 Problem Statement

Sub-Saharan Africa continues to bear a disproportionate burden of the global maternal mortality crisis. While showing improvement from 1,120 in 1985, the burden remains significantly higher than the global average (World Bank, 2025b). Sub-Saharan Africa alone accounted for approximately 70% of all global maternal deaths in 2023 (WHO, 2023b; WHO, 2025a). Leading causes of maternal deaths in the region include obstetric haemorrhage and hypertensive disorders in pregnancy (Adu, Mulay and Owusu, 2021).

Despite global and regional efforts to improve maternal healthcare, Ghana continues to face substantial challenges in reducing maternal morbidity and mortality (Adu, Mulay and Owusu, 2021). The maternal mortality ratio in Ghana was 234 deaths per 100,000 live births in 2023 (World Bank, 2025a). While this represents a notable decrease from previous estimates, it still falls significantly short of the Sustainable Development Goal (SDG) target of less than 70 deaths per 100,000 live births by 2030 (UN, 2022).

Utilisation of maternal healthcare services in Ghana, while showing progress, still presents inequities. The facility delivery rate in Ghana was 86% of live births in the two years preceding the 2022 Demographic and Health Survey (DHS) (Mohammed *et al.*, 2025). Regarding antenatal care (ANC), 38.4% of women achieved the recommended global target of eight or more ANC visits according to the 2022 DHS (PMC, 2024). Further evidence that Ghana is not meeting the WHO benchmark is the observed maternal mortality ratio in the Greater Accra Region in 2024, which was 167 per 100,000 live births, which exceeds the WHO target of 70 per 100,000 live births (WHO, 2024). Additionally, teenage mothers, specifically those aged 15-19 years, continue to be a vulnerable group. The adolescent fertility rate in Ghana was 58 births per 1,000 girls aged 15-19 in 2023 (World Bank, 2025a). Previous research indicates that young mothers often face

lower odds of utilising skilled delivery services due to factors such as lower educational status, poorer households, and rural residency (Anaba *et al.*, 2022).

The Free Maternal Healthcare Policy (FMHCP) under the National Health Insurance Scheme (NHIS) has contributed to an overall increase in the utilisation of antenatal care and facility-based delivery (Adawudu *et al.*, 2024). However, systemic issues and socio-demographic inequalities persist, impeding full access and utilisation (Adu, Mulay and Owusu, 2021). These include financial barriers, long distances to health facilities, poor distribution of resources in rural areas, and cultural beliefs that deter timely service uptake (Adu, Mulay and Owusu, 2021; Aboagye *et al.*, 2024; Adawudu *et al.*, 2024).

Addressing these persistent gaps and inequalities is crucial for Ghana to accelerate its progress towards achieving the SDG target for maternal mortality and ensuring equitable access to quality maternal healthcare for all women, particularly those in vulnerable populations. There is limited district-level research on Antenatal care and delivery utilisation in Ghana.

The lack of up-to-date, Ada West district-specific data creates a critical knowledge gap, hindering the development of targeted, context-specific maternal health programs. Without a clear understanding of the local barriers and enablers of service use, efforts of district health management teams and policymakers to improve maternal and child health may be ineffective. This study, therefore, addresses this gap by examining Antenatal care and delivery services utilisation patterns within the Ada West District to inform evidence-based interventions and contribute to the reduction of maternal morbidity and mortality in this specific setting.

1.3 Rationale of Study

Maternal mortality remains a persistent public health challenge in Ghana and across Sub-Saharan Africa, despite global and national efforts to reduce preventable maternal deaths (Boafor *et al.*, 2025). This study is both necessary and timely, as it addresses the urgent need to understand Antenatal care and delivery services utilisation within localised contexts, particularly in underserved districts such as Ada West in the Greater Accra Region. This study in Ada West is crucial for designing targeted, effective interventions of Public Health interest aimed at strengthening outreaches, counselling or referral mechanisms to ensure pregnant women attend Antenatal care and deliver in health facilities.

This study directly addresses this gap by providing disaggregated insights into the determinants and patterns of Antenatal care and use of delivery services among women of reproductive age in the Ada West District. The findings of this study are expected to guide targeted health promotion strategies, resource allocation, and service delivery adjustments within the district health management framework.

Furthermore, the findings from this study will inform policy makers at the National level and in Greater Accra Region about the gaps in access utilisation and equity-thereby supporting policy refinement on resource allocation, transport support and facility strengthening to ensure quality Antenatal care and delivery services. It will also support the objectives of the Ghana Health Service's Reproductive, Maternal, New-born, Child and Adolescent Health and Nutrition (RMNCAHN) strategy (WHO, 2021). By identifying structural, socio-cultural, and individual barriers to maternal health care services, this research will inform interventions that are not only evidence-based but also culturally sensitive and community-driven.

The COVID-19 pandemic had earlier highlighted vulnerabilities in maternal health systems (Charadan, Duuti and Titigah, 2025), making renewed focus on access and service uptake especially critical. This study provides timely evidence in light of Ghana's efforts to strengthen primary healthcare and achieve equity in health outcomes across regions and demographic groups. The study also responds to growing concerns about equity in access to maternal healthcare and prioritises voices from a semi-rural district that is often underrepresented.

Beneficiaries of this research include policymakers at both national and district levels, particularly the Ministry of Health and the Ghana Health Service, who require granular data to allocate resources effectively. The findings will also benefit local health management teams, development partners, non-governmental organisations, and maternal health advocates seeking to improve service delivery and health education. Additionally, the study contributes to academic literature and policy discourse on Antenatal care and delivery utilisation in Ghana, filling a significant gap by offering insights specific to the Ada West District.

1.4 Conceptual Framework

This study is underpinned by Andersen's Behavioural Model of Health Services Use, complemented by selected constructs from the Health Belief Model, to provide a robust framework for examining maternal health-seeking behaviour in the Ada West District of Ghana. Andersen's Behavioural Model, developed in the late 1960s, is one of the most widely applied theoretical frameworks for understanding health service utilisation (Andersen, 1995).

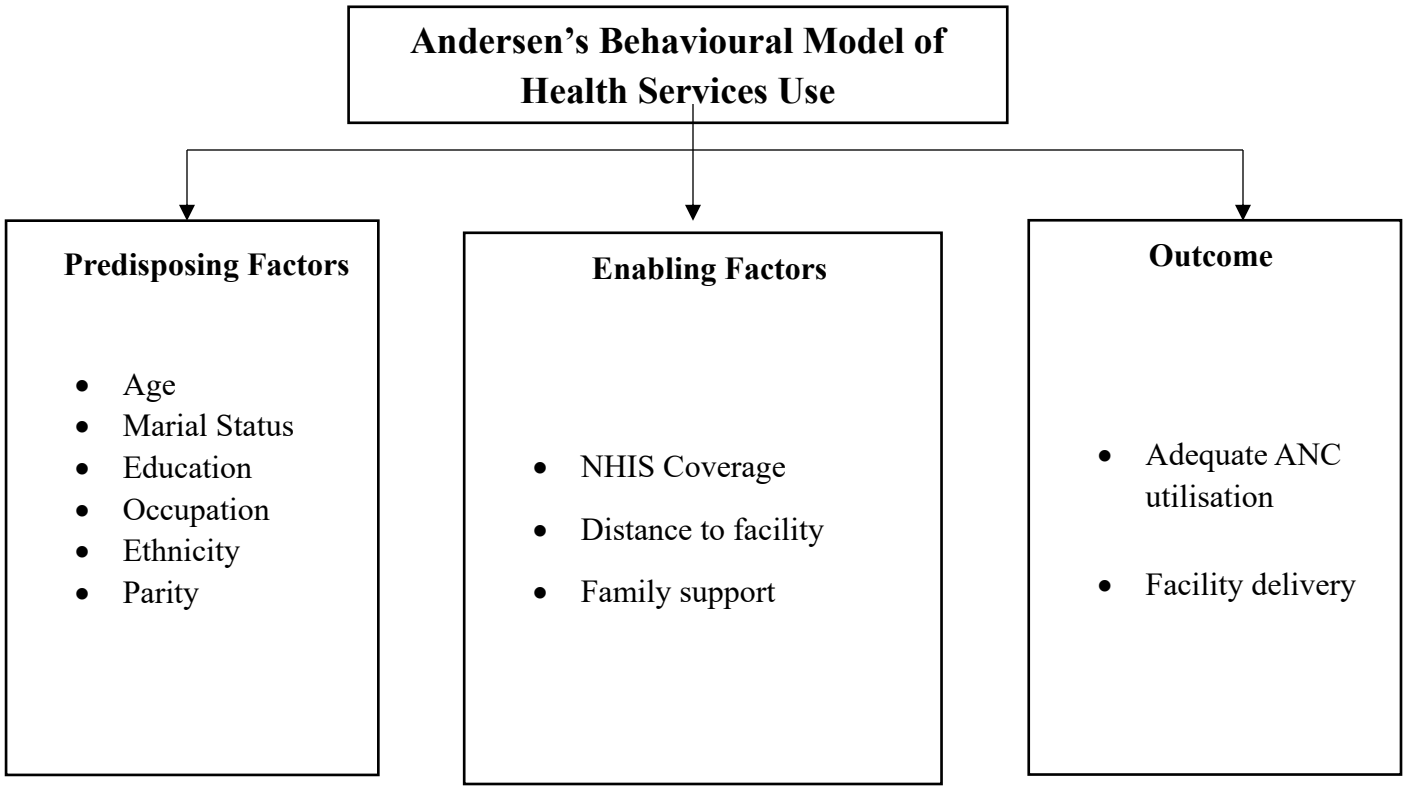

Figure 1.0 Conceptual Framework of Study (Andersen's Behavioural Model)

Source: Adopted from (Andersen, 1995; Green, Murphy and Gryboski, 2020)

It categorises the determinants of health service use into three domains: predisposing factors, enabling factors, and need factors, and the key theoretical assumption of this model is that healthcare utilisation is not random but rather systematically influenced by social structure, beliefs, enabling resources and perceived or evaluated need (Andersen, 1995).Predisposing factors refer to socio-demographic characteristics that make an individual more or less likely to use health services (Andersen, 1995). In this study, they include demographic elements such as age, marital status, educational status and parity.

Enabling factors pertain to the logistical and financial resources that facilitate or hinder access to healthcare (Andersen, 1995). These include family support, health insurance coverage and distance to healthcare facilities (Andersen and Newman, 2005).

Need factors capture the perceived or evaluated health conditions that drive the demand for health services (Andersen, 1995). This includes a woman's subjective perception of her health status or pregnancy risk (perceived need), as well as clinical assessments of obstetric complications or medical indications for care (evaluated need). These needs often serve as the most immediate triggers for seeking maternal health services (Andersen and Newman, 2005).

A supporting theory that makes the Andersen's model a more robust conceptual framework is the Health Belief Model, which explains how individuals' perceptions of risk and benefit influence their health-seeking behaviour. This theory aligns with Andersen's predisposing and need components, in that a woman's perceived susceptibility to pregnancy complications or perceived benefits of skilled delivery may determine whether she attends adequate ANC or delivers in a health facility (Rosenstock et al., 1974).

In this study, the conceptual framework will be used to guide data collection, analysis, and interpretation. Variables will be mapped onto the three core domains of Andersen's model.

1.5 Research Questions

1. How do women utilise ANC in the Ada West District?
2. What type of delivery services do women utilise in the Ada West District?
3. What determines women's utilisation of facility delivery in the Ada West District?

1.6 General Objective

To examine ANC and delivery service utilisation among women of reproductive age (15-49 years) in the Ada West District of the Greater Accra Region of Ghana.

1.7 Specific Objectives

1. To assess the utilisation of antenatal care services among women of reproductive age in the Ada West District
2. To identify the place of delivery utilised by women in the Ada West District
3. To examine the factors that determine utilisation of facility delivery by women in the Ada West District

1.8 Profile of Study Area

The Ada West District is one of the twenty-nine administrative assemblies located within Ghana's Greater Accra Region. Established in 2012 by Legislative Instrument 2129, the district was carved out of the former Dangme East District (Ada West District Assembly, 2025). Geographically, it is positioned in the southeastern corner of Ghana, lying between latitudes 5°45'S and 6°00'N and longitudes 0°20'W and 0°35'E. With a total land area of approximately 323.72 square kilometres, the district constitutes nearly 10% of the Greater Accra Region's total landmass (Ada West District Assembly, 2025).

The population of the Ada West District, as recorded in the 2021 Population and Housing Census, was 76,087 (GSS, 2021). By 2023, this figure had increased to a projected 80,878 individuals, growing at a rate of 3.1% annually. Females constitute 51.2% (41,408) of the district's population, while males represent the remaining 48.8% (39,470) (Ada West District Assembly, 2025).

Agriculture is the backbone of the district economy. The Ada West District is renowned for cultivating cassava, maize, legumes, fruits, and various vegetables (Ada West District Assembly, 2025). Notably, the district contributes more than 50% of the Greater Accra Region's output for crops other than maize and cassava (Ada West District Assembly, 2025). Aside from livestock rearing, the district is also known for salt mining and its marine fishing activities, with key species such as kingfish, anchovies, mackerel, tuna, shrimp, herrings, and barracuda being harvested. These fish are often processed through smoking and drying and supplied to markets in Sege, Kasseh, Denu, Agbogbloshie, Mamprobi, and Techiman (Ada West District Assembly, 2025).

The district's road infrastructure is a mix of highways and feeder roads, complemented by water transport. Out of a total road network of 297.42 kilometres, 244.42 kilometres are feeder roads, and 53.0 kilometres are highways (Ada West District Assembly, 2025). Electricity is the primary source of lighting for 66.6% of households in the district, followed by kerosene lamps (27.2%) and flashlights or torches (5.0%). Charcoal serves as the dominant fuel for cooking, used by 55.2% of households (Ada West District Assembly, 2025).

The district has a total of 103 schools, comprising 52 public schools and 51 private schools. Public schools represent 50.5% of the educational facilities, with one senior high school serving the entire district (Ada West District Assembly, 2025). A significant proportion of waste is either burned (29.7%) or disposed of in open spaces (39.4%), contributing to environmental degradation (Ada West District Assembly, 2025).

The district's health infrastructure is limited, with one polyclinic located in Sege and three health centers in Bonikope, Anyamam, and other areas (Ada West District Assembly, 2025). Additionally, there are five operational Community-Based Health Planning and Services (CHPS) compounds located in Madavunu, Matsekope, Luhuor, Caesakope, and Afiadenyigba. The district

lacks private health facilities but has fifteen chemical shops and about thirty untrained traditional birth attendants (Ada West District Assembly, 2025).

Notable amongst the maternal and child health issues in the Ada West District are high teenage pregnancy and unsafe abortions, with the district recording 357 teenage pregnancies among girls aged 10-19 years, with 7 cases of abortion (Ghana News Agency, 2022). The district has also been noted to have inadequate numbers of midwives and community health nurses, and the few in the district are faced with lack of accommodation for health workers and bad roads leading to hard-to-reach areas (Ghana News Agency, 2021).

***Figure** 2. Map of Ada West District*

Source: *(GSS, 2021)*

1.9 Scope of Study

This study focused on ANC and delivery utilisation among women of reproductive age (15–49 years) in the Ada West District of the Greater Accra Region of Ghana. It examined socio-demographic determinants, health-seeking practices during pregnancy and childbirth, perceptions and attitudes toward maternal health services, and service utilisation patterns across different socio-economic groups. It examined the factors that determine utilisation of facility delivery and identified the place of delivery utilised by women. The study was limited to women who experienced pregnancy and delivery within the past three years and relied on quantitative data collected through structured questionnaires. It does not include clinical assessments or qualitative interviews. The findings are context-specific and may not be generalizable to other districts or regions in Ghana.

1.10 Organisation of Thesis

This thesis is organised into six chapters. Chapter One (Introduction) presents an overview of the study, including the background, problem statement, research objectives, research questions, significance of the study, scope, and the organisation of the thesis. Chapter Two (Literature Review) examines relevant theoretical and empirical literature relevant to Antenatal care (ANC) and delivery utilisation among women of reproductive age. It explores key socio-demographic, cultural, and structural determinants, as well as the patterns of care-seeking during the pregnancy and childbirth period.

Chapter Three (Methodology) outlines the research design, study area, population, sampling procedures, data collection methods, instruments, and ethical considerations. It also details the study variables and techniques used for data analysis. Chapter Four (Results) presents the findings of the study using descriptive and inferential statistics aligned with the research objectives. It

highlights patterns of healthcare utilisation, health-seeking practices, and associated demographic factors.

Chapter Five (Discussion) interprets the results in the context of existing literature. It provides an in-depth analysis of the implications of the findings and how they relate to broader maternal health outcomes. Chapter Six (Conclusions and Recommendations) summarises the key findings, draws conclusions, and offers practical recommendations for improving maternal healthcare utilisation in Ada West District. It also suggests areas for future research.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter reviews literature relevant to Antenatal care (ANC) and delivery utilisation among women of reproductive age. It draws on empirical studies and evidence to understand the factors that influence maternity service use, particularly in low- and middle-income settings. The review focuses on socio-demographic and socio-economic determinants, cultural and attitudinal influences, access to healthcare services, and care-seeking patterns during pregnancy and childbirth. This synthesis of literature provides the foundation for the current study and helps to identify knowledge gaps within the context of the Ada West District in Ghana.

2.2 Trends and Patterns of Maternal Health Service Utilisation

Research across low- and middle-income countries (LMICs) reveals considerable variation and evolving patterns in the use of maternal health services (MHS). While progress has been achieved in several regions, disparities remain, largely shaped by geography, socio-economic status, education, and health system factors.

Shanto *et al.* (2023) highlight wide disparities across 37 LMICs: while countries such as Armenia, Jordan, and Sierra Leone report high ANC utilisation rates (>73%), others like Senegal, Chad, and Benin show much lower uptake (<8%). Similar cross-country variation is found among young women in sub-Saharan Africa, where Bain *et al.* (2022) report 55.2% ANC attendance, 78.8% skilled birth attendance (SBA). These differences are attributed to national strategies, socio-economic inequalities, and geographic accessibility (Bain *et al.*, 2022; Shanto *et al.*, 2023).

In Nepal, Mehata *et al.* (2017) observed substantial improvements between 1994 and 2011: four or more ANC visits rose from 9% to 54%, institutional deliveries from 6% to 47%, and C-sections from 1% to 6%. Yet, inequities persisted, with wealthier and more educated women disproportionately accessing services (Mehata *et al.*, 2017).

Further temporal analyses in the literature revealed improvements in service utilisation over time, but with persistent inequalities. Duodu *et al.* (2022) reported steady increases in ANC attendance in Ghana between 2006 and 2018. Longchar, Kodali and Hense (2025) documented gains in India between 2015 and 2021, although dropout rates in ANC remained high. Despite these positive trajectories, inequalities linked to residence, wealth, and education have not only persisted but in some contexts have widened, as shown in Ethiopia by Gebre, Worku and Bukola (2018) and in Nigeria by Obiyan and Kumar (2015) who demonstrated that ANC coverage was as low as 16 % among the poorest women compared to 93% among the wealthiest. Bain *et al.* (2022) showed that young women in the richest quintiles were more than twice as likely to use ANC and Skilled birth attendants compared to those in the poorest quintiles across sub-Saharan Africa.

Quality of care also shapes utilisation trends. Dotse-Gborgbortsi *et al.* (2023) showed that women in Ghana were more inclined to travel longer distances to access hospitals known for higher quality services rather than relying on nearby primary facilities.

2.3 Antenatal Care (ANC) Initiation, Number of ANC Attendances and Nutritional Supplementation during ANC

A common challenge in many contexts is the late initiation and inadequate number of ANC visits. Smith *et al.* (2022) in northern Lao PDR found that while 90% of women had at least one ANC visit, only 25% achieved the WHO-recommended eight contacts. Similarly, Das, Biswas and Raza (2017) In Bangladesh, it was reported that most women had only 1–2 visits, far below the national

guidelines of four. In Ethiopia, Shiferie *et al.* (2023) observed that women often delayed ANC until after the fourth month of pregnancy, citing cultural fears of miscarriage and reluctance to disclose pregnancy early.

Cultural beliefs significantly shape health-seeking behaviours. In southern Ghana, women delayed ANC to avoid the "evil eye" and refrained from crossing rivers during pregnancy due to taboos (Ansong, Asampong and Adongo, 2022). Herbal remedies, such as *awuo mre aduro*, were used to induce or ease labour, while sexual intercourse during pregnancy was encouraged to ensure a smooth delivery. Similar cultural influences were observed in Ethiopia, where secrecy around pregnancy delayed care-seeking (Shiferie *et al.*, 2023).

Pregnancy-related supplement use is inconsistent across contexts. In Lao PDR, although 84.6% of women used supplements, most only took iron or iron–folic acid, with low uptake of thiamine despite high deficiency risk (Smith *et al.*, 2022). In Bangladesh, 90% of women reported awareness of increased nutritional needs, but this knowledge did not always translate into dietary improvements (Das, Biswas and Raza, 2017). This highlights the gap between knowledge and practice in maternal nutrition.

2.4 Delivery Services Utilised by Women During Childbirth

Many women continue to deliver at home, often without skilled birth attendants. In Bangladesh, 59% of women delivered at home despite receiving some ANC (Das, Biswas and Raza, 2017). Similarly, Shiferie *et al.* (2023) noted that Ethiopian women preferred home births unless complications arose. In Ghana, Ansong, Asampong and Adongo (2022) found that women chose traditional birth attendants (TBAs) over hospitals because TBAs allowed culturally preferred squatting positions for delivery and were perceived as more supportive. Such practices, while culturally significant, limit access to skilled care and may increase maternal and neonatal risks.

Across 17 sub-Saharan countries, pooled data revealed that about 72% of deliveries occur in health institutions (Wan et al, 2023). Although supervised delivery has the potential to improve birth outcomes for both women and newborns, not all women, especially in low-income settings like Ghana, utilise supervised delivery. In Garu-Tempane, among those who had skilled delivery, 57% were attended by midwives (Ganle, Kombat and Baatiema, 2019).

2.5 Perceptions, Beliefs, and Attitudes Toward Maternity Services

Women's perceptions of ANC often extend beyond health benefits to more practical concerns. In South Africa, Drigo *et al.* (2020) found that many women sought ANC primarily for maternity records or HIV testing rather than broader health checks. In Tanzania, Mahiti *et al.* (2015) reported that while women valued ANC for complication management, they underestimated the importance of postpartum care for their own health. Such perceptions reflect a partial understanding of maternity care's full scope.

The behaviour of health workers strongly shapes women's attitudes. Negative experiences, such as rudeness, neglect, or breaches of privacy, discouraged women from seeking timely care in South Africa (Drigo *et al.*, 2020) and Tanzania (Mahiti *et al.*, 2015). Similarly, Strong *et al.* (2024) in Ghana reported mistrust stemming from verbal abuse and lack of privacy, leading some women to avoid health facilities. In contrast, Banda, Mukonka and Sianchapa (2025) in Zambia found that compassionate midwives who provided emotional and even spiritual support were highly valued, though inconsistent service quality tempered women's overall confidence.

Cultural norms continue to influence perceptions of care. In Ghana's Kwabre-East District, Boakye *et al.* (2024) found that some women resisted care from male midwives due to beliefs about modesty, religion, or marital propriety. Similarly, Strong *et al.* (2024) noted that many Ghanaian women preferred home births for cultural reasons, particularly the importance of family

support during labour. These beliefs can limit women's willingness to use formal services, even when they acknowledge their benefits.

Women also express dissatisfaction with structural and organisational aspects of maternity care. Konlan *et al.* (2018) in Ghana reported concerns about long waiting times, restrictions on support persons during labour, and limited partner involvement. While most women trusted midwives' competence, they desired more respectful treatment and continuous support. Such dissatisfaction often interacts with cultural beliefs to reinforce reluctance to seek facility-based care (Konlan *et al.*, 2018).

2.6 Socio-Demographic, Socio-Economic and Structural Factors as Determinants of Utilisation of Facility Delivery

Place of residence has been consistently identified as a key determinant of maternal healthcare utilisation. Urban women are more likely to attend antenatal care (ANC) and deliver in health facilities compared to rural women. For example, Paul and Chouhan (2020) in India found that urban residence significantly increased the likelihood of ANC and facility-based delivery.

Shanto *et al.* (2023), for instance, found that urban residence was strongly associated with higher maternal health service use across 37 low- and middle-income countries, largely due to proximity to facilities, greater health awareness, and better infrastructure. Similarly, Kassa *et al.* (2024) in sub-Saharan Africa reported that urban residence had a strong positive association with maternal continuum of care utilisation (POR = 2.69). In Pakistan, He, Bishwajit and Wu (2025) also confirmed that rural women were disadvantaged in accessing reproductive health services. Similar patterns are observed in Nigeria, where Adedokun, Uthman and Bisiriyu (2023) reported significantly higher participation among urban women than those in rural areas. Dotse-Gborgbortsi *et al.* (2023) add that in Ghana, women living beyond two hours from a facility had markedly

reduced Antenatal care and delivery service utilisation, highlighting how geographical accessibility interacts with urban–rural differences.

Maternal education strongly influences Antenatal care and delivery utilisation. Women with higher educational attainment are more likely to initiate ANC early, attend the recommended number of visits, and deliver in facilities. For instance, Emelumadu *et al.* (2014) in Nigeria observed that 92.6% of tertiary-educated women used hospitals for ANC compared to only 46.4% of women with primary education. Paul and Chouhan (2020) also found that women with at least a primary-level education were more likely to utilise maternity services compared to those without schooling. A systematic review by Kassa *et al.* (2024) confirmed education as a significant factor across sub-Saharan Africa (POR = 1.32). This suggests that education not only improves women's awareness but also empowers them to seek formal maternal healthcare. Similarly, Novignon *et al.* (2019) found that rising education levels in Ghana helped reduce disparities in maternal care utilisation, particularly when combined with NHIS expansion.

Poverty remains one of the strongest barriers to maternity service utilisation. Eloundou-Enyegue (2024) demonstrated that across Mali, Burkina Faso, Niger, and Senegal, poverty outweighed education as a determinant of access, with inequities widening in some countries, such as Mali. Similarly, Maitanmi *et al.* (2023) in Nigeria found that women in stable jobs were more likely to access Antenatal care and deliver in facilities. Novignon *et al.* (2019) also documented pro-rich inequalities in Ghana, where wealthier women were consistently more likely to complete ANC visits and deliver with skilled attendants.

Maternal age and parity also shape Antenatal care and delivery utilisation. Older women tend to use ANC and delivery services more frequently than younger women. In Nigeria, Emelumadu *et al.* (2014) found that women aged ≥30 years were more likely to attend ANC (82.3%) and deliver

in hospitals (88.0%) compared to women ≤24 years (67.9% and 60.3%, respectively). Similarly, Chamileke (2017) reported that older maternal age increased service uptake (OR = 2.1, P<0.05). However, high parity was linked with delayed ANC booking and fewer visits, as multiparous women often perceived less need for intensive care (Emelumadu *et al.*, 2014).

Marital status and household decision-making dynamics play important roles in determining care-seeking. Married women were found to have higher levels of ANC and facility delivery than single, widowed, or divorced women, who were more likely to rely on traditional birth attendants (Emelumadu *et al.*, 2014). In Zambia, Chamileke (2017) noted that joint or male-led decision-making was associated with greater postnatal care utilisation (OR = 4.5, P<0.05). These findings suggest that spousal support and household power relations directly influence service use.

Family and social support also determine utilisation. Maitanmi *et al.* (2023) found that support from spouses and mothers-in-law significantly influenced women's decisions to seek care in Nigeria. Similarly, Pandey and Karki (2014) noted that family structure (e.g., extended vs. nuclear households) shaped ANC attendance in Nepal. Such findings emphasise that health-seeking is often a collective rather than individual decision.

Beyond socio-demographics, system-level factors such as distance to facilities, quality of care, and health worker attitudes also influence utilisation. In Zambia, long distances reduced assisted delivery use (Chamileke, 2017). In Ghana, both Dapaah and Nachinaab (2019) and Akowuah, Agyei-Baffour and Awunyo-Vitor (2018) confirmed that distance, service quality, and satisfaction with ANC services were significant determinants. These findings illustrate that socio-demographic factors often interact with health system barriers to shape maternity service utilisation.

Policy initiatives can reduce inequalities in access. In Ghana, Novignon *et al.* (2019) found that the National Health Insurance Scheme (NHIS) substantially narrowed gaps in ANC and skilled

delivery by removing financial barriers. Likewise, improvements in health system performance, such as in Burkina Faso, contributed to more equitable progress (Eloundou-Enyegue, 2024). These examples highlight the role of systemic reforms in addressing socioeconomic disparities.

2.7 Summary

The literature shows that while Antenatal care and delivery utilisation have generally improved across low- and middle-income countries, access remains uneven and shaped by persistent inequalities. Temporal analyses from countries such as Nepal, Ghana, India, and Ethiopia confirm that antenatal care, skilled birth attendance, and postnatal care have increased over time, yet disparities linked to geography, wealth, and education continue to disadvantage certain groups and cultural norms continue to influence perceptions of care. Many Ghanaian women preferred home births or Traditional Birth Attendants (TBA) for cultural reasons, rude behaviour of health workers and negative experiences. Women delivered at home despite receiving some ANC.

Urban residence consistently facilitates better access due to proximity to health facilities, greater health awareness, and stronger infrastructure, whereas women in rural or remote areas delay ANC or forego care altogether. Economic status strongly influences service use, with wealthier women more likely to engage in all aspects of maternal care compared to poorer households. Similarly, education empowers women to initiate antenatal visits early, complete recommended schedules, and opt for facility-based delivery, while low literacy constrains these. Other factors, such as family size, autonomy in decision-making, and access to information through mass media and digital platforms, also shape utilisation patterns by either enabling or constraining care. Finally, the quality of services influences women's choices, with many preferring to bypass nearby facilities in favour of higher-quality hospitals, even at greater cost and distance, and some women still preferred home delivery with a TBA despite attending some ANC. Overall, while progress is

evident, the literature highlights persistent and sometimes widening inequities that reflect both socio-demographic vulnerabilities and structural barriers within health systems.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Introduction

This chapter outlines the methodological framework that will guide the investigation of ANC and delivery services utilisation among women of reproductive age (15–49 years) in the Ada West District of the Greater Accra Region of Ghana. It will examine the socio-demographic determinants, health-seeking practices during pregnancy and childbirth, perceptions and attitudes toward maternal health services, and patterns of service utilisation across different socio-economic groups. It will examine the factors that determine utilisation of facility delivery and identify the place of delivery utilised by women during pregnancy and childbirth. The methodology covers the study design, site selection, population characteristics, sampling procedures, data collection methods, analytical approaches, and ethical considerations. The chapter further details the procedures for maintaining data quality, ensuring participant safety, and addressing potential limitations of the study.

3.2 Research Methods and Design

This study employed a community-based cross-sectional quantitative research design to examine ANC and delivery utilisation among women of reproductive age (15–49 years) in the Ada West District, thereby giving a representative sample of all women in that age bracket in Ada West.. The cross-sectional design enabled the collection of data at a single point in time, providing a snapshot of current ANC and delivery utilisation among the target population (Wang and Cheng, 2020). The quantitative approach facilitated the collection of measurable data that can be statistically analysed to identify patterns, relationships, and factors influencing maternal healthcare utilisation

(Lim, 2025). This design allowed for the examination of multiple variables simultaneously and enabled the researcher to draw inferences about the study population based on the sample data collected (Setia, 2016).

3.3 Study Site

The study was conducted in the Ada West District of the Greater Accra Region of Ghana. The Ada West District served as an appropriate study site due to its diverse population characteristics and varied healthcare infrastructure. The research specifically focused on health facilities within the district that provide comprehensive antenatal and postnatal care services. These facilities included three primary health facilities that provide antenatal and postnatal care services: Sege Polyclinic, Anyamam Health Centre, and Bonikope Health Centre. These facilities served as the primary healthcare delivery points for maternal services in the district. Additionally, data collection extended to community settings during designated market days, providing opportunities to reach women who naturally gather at the market to engage in various trading activities. This multi-site approach ensured complete coverage of the target population and enhanced the representativeness of the findings across the district.

3.4 Study Population

The study population comprised women of reproductive age, specifically those between 15 and 49 years, residing in the Ada West District of the Greater Accra Region, Ghana. The target population focused on women who have experienced pregnancy and delivery within the three years preceding the study, from May 2025 to August 2025. This timeframe was considered appropriate as it ensured that participants could accurately recall their experiences with maternal healthcare services while capturing recent patterns of service utilisation that reflect current healthcare delivery systems and practices. The reproductive age range of 15-49 years aligns with international definitions used by

organisations such as the World Health Organisation (WHO, 2025b) and ensures consistency with global maternal health research standards.

3.5 Sampling

The study employed a multi-stage sampling technique to ensure a representative selection of participants from the target population. The first stage involved purposive sampling of health facilities based on their provision of comprehensive maternal services in the 3 sub-districts, resulting in the selection of Sege Polyclinic, Anyamam Health Centre, and Bonikope Health Centre. The second stage utilised systematic random sampling to select eligible participants from these facilities in the sub-districts. 92 participants were recruited from Sege-sub, 72 from Anyamam-sub and 65 from Bonikope sub-districts, respectively. In order to increase the sample size, the study recruited 133 participants from the Sege Central market. The Sege Central Market was selected due to its prime location in the heart of the Ada West District.

The sample size was calculated using the Cochran formula (Snedecor and Cochran, 1989) with a 95% confidence interval, a 5% margin of error and an estimated prevalence of maternal healthcare utilisation based on previous studies in similar settings in Ghana:

$$n = \frac{Z^2 \times p \times (1 - p)}{(e)^2}$$

where:

n = required sample size

z = reliability coefficient (1.96 for 95% confidence interval)

p = estimated prevalence of maternal healthcare utilisation

e = margin of error (5% or 0.05)

Based on findings from a previous study by Nuamah *et al.* (2019) conducted in the Amansie-West district of the Ashanti Region of Ghana, the estimated proportion of women utilising skilled maternal healthcare services is approximately 68.5% (p = 0.685). The sample size is therefore calculated as follows:

$$n = \frac{(1.96)^2 \times (0.69) \times (1 - 0.69)}{(0.05)^2}$$

$$n = \frac{3.8416 \times (0.69) \times (0.31)}{0.0025} \approx 329$$

Adjusting for a 10% non-response rate (33), the final sample size

= 329 + 33 = 362 participants

3.6 Inclusion and Exclusion Criteria

3.6.1 Inclusion Criteria:

- Women aged 15-49 years at the time of data collection
- Residents of Ada West District for at least six months before the study
- Women who have experienced pregnancy and delivery within the past three years before the study
- Women who are mentally competent and able to provide informed consent
- Women who are willing to participate voluntarily in the study

3.6.2 Exclusion Criteria:

Women were excluded from the study if they are outside the age range of 15–49 years, are non-residents of the Ada West District, have not experienced pregnancy and delivery within the past three years, have been diagnosed with severe mental health conditions that impair their ability to

provide informed consent or reliable responses, are critically ill or in emergency medical situations at the time of data collection, or are unwilling or unable to provide informed consent.

3.7 Data Collection Techniques and Tools

Data was collected using a structured questionnaire, and 362 of these questionnaires were administered through face-to-face interviews (Appendix). The questionnaire was developed based on the study objectives and incorporated validated instruments from previous research on ANC and delivery utilisation, where applicable. The instrument was designed to capture comprehensive information on socio-demographic characteristics, healthcare behaviours during pregnancy and childbirth, perceptions and attitudes toward maternity services, and patterns of healthcare utilisation.

The questionnaire was organised into five main sections. Section A comprised 10 questions which capture background variables such as age, education level, ethnicity, religion, marital status, employment status, parity, and place of residence. Secondly, section B with 5 questions, explores participants' sources of health advice, care-seeking practices for pregnancy-related illnesses, use of self-medication, and the type of health education sought and received during pregnancy.

Thirdly, section C comprised 14 questions which assess the use of antenatal and delivery services, including the frequency and timing of visits, types of providers, place of care, challenges faced, and type of delivery attended. Moreover, section D part with 19 questions, examines the socio-economic, cultural, and structural factors affecting healthcare behaviour, including financial constraints, autonomy in decision-making, family support, insurance coverage, and access to healthcare facilities.

Lastly, section E, with 12 questions, evaluates women's beliefs and attitudes toward antenatal care, skilled birth attendance and traditional birth attendants using a series of attitudinal statements with Likert-scale responses. The questionnaire was programmed into the KoBoCollect platform (UN-OCHA, 2024), enabling real-time data collection using mobile devices. This digital approach enhanced data quality through built-in validation checks, reduced transcription errors, and facilitated immediate data transmission to secure servers. The questionnaire was administered in local languages to ensure accessibility and comprehension among participants with varying educational backgrounds.

3.7 Study Variables

This study was guided by well-defined variables aligned with the research objectives. The variables were categorised into dependent and independent types to facilitate the analysis of factors influencing maternal healthcare utilisation. The dependent variables represented the key outcomes related to the use of maternity services, while the independent variables captured socio-demographic and behavioural characteristics that may affect these outcomes.

3.7.1 Dependent Variables

A dependent variable is the outcome of interest for any given study (National Library of Medicine, 2025). The dependent variables in this study are indicators of maternal health service utilisation, specifically the uptake of antenatal care (ANC) and facility delivery. These include whether the respondent attended ANC, the place of delivery (health facility or home), and the type of birth attendant (skilled or unskilled).

Table 1: Dependent variables

Dependent Variable	Description	Scale of Measurement
ANC attendance	Whether the woman attended ANC	Binary
Place of delivery	Whether the delivery was in a health facility	Binary
Type of birth attendant	Whether the delivery was by a qualified or an unqualified birth attendant	Binary

3.7.2 Independent Variables

Independent variables are the factors or conditions a researcher manipulates or observes to see how they affect other variables, specifically, the dependent variables (National Library of Medicine, 2025). The independent variables of this study include a range of socio-demographic and behavioural factors expected to influence the utilisation of maternity services. These comprise age, educational level, marital status, employment status, income level, parity, place of residence, religion, and exposure to health information. Additionally, decision-making autonomy, cultural beliefs, and perceived quality of care are explanatory variables.

Table 2: Independent variables

Independent Variable	Description	Scale of measurement
Age	A woman's age in years	Continuous
Educational level	A woman's highest level of education	Categorical
Marital status	A woman's marital status	Categorical

Employment status	A woman's employment status	Categorical
Parity	The number of births by a woman	Categorical
Residence	A place where a woman lives for at least 6months	Binary

Pretesting

A pretest was conducted among 36 women (approximately 10% of the calculated sample size) in Kasseh in neighbouring Ada East District (which shares similar socio-demographic characteristics with Ada West), who met the inclusion criteria but were not included in the main study. This helped assess the clarity of questions, relevance, time required for completion, and functionality of the digital data collection system. A reliability analysis using Cronbach's alpha coefficient was 0.81, indicating good internal consistency. Feedback from the pretest aided the inclusion of Ga-Dangbe as an option for the Ethnic groups in the questionnaire and the need to include an interpreter during data collection.

3.10 Data Handling

All data collected through KoboCollect was automatically encrypted and transmitted to a secure Google Drive account with restricted access. Unique participant identification numbers were assigned to maintain anonymity, and personal identifiers were stored separately from survey responses. Access to data was limited to authorised research team members who had signed confidentiality agreements. Regular data backups were performed to prevent data loss, and version control measures were established to track any modifications. Physical documents, including signed consent forms, were stored in locked cabinets with limited access. Data will be retained for a period of 5 years and will be securely destroyed following the completion of the research and

any required follow-up activities. All data handling procedures complied with relevant data protection regulations and institutional policies.

3.11 Data Analysis

Statistical analysis was conducted using STATA version 18 software to address the research objectives. Descriptive statistics were used to characterise the study population, including frequencies, percentages, means, and standard deviations for relevant variables. Univariate analysis examined the distribution of socio-demographic factors, health-seeking behaviours, and healthcare utilisation patterns. Bivariate analysis explored associations between independent variables and Antenatal care utilisation using chi-square tests for categorical variables and t-tests or ANOVA for continuous variables, to help address specific objectives 1 and 2. Additionally, for specific objective 3, Multivariate logistic regression analysis was performed to identify significant predictors of facility delivery while controlling for potential confounding factors. Odds ratios with 95% confidence intervals were calculated to quantify the strength of associations. Statistical significance was set at $p<0.05$ for all analyses. Data visualisation techniques, including graphs and charts, were employed to present findings effectively and facilitate the interpretation of results.

3.13 Ethical Considerations

Ethical protocols were implemented to ensure the protection of participants' rights, dignity, and welfare throughout the research process. Ethical approval for the study was obtained from the Institutional Review Board (IRB) of Ensign Global University (ENSIGN/IRB/EL//SN-267/01) before the commencement of the study. Oral informed consent was sought from all participants after providing detailed explanations about the study purpose, procedures, potential risks and benefits, and their rights as research participants. Literate participants further had the choice to read the informed consent for themselves. Special considerations were made for minors (15-17

years), including parental consent where culturally appropriate and ethically required. Participants were informed of their right to withdraw from the study at any time without consequences. Confidentiality and anonymity were strictly maintained using unique identifiers and secure data storage systems. The research adhered to the principles of beneficence, non-maleficence, autonomy, and justice throughout all phases of the study.

3.13 Limitations of the Study

This study was subject to several limitations that may have affected the interpretation of findings. First, the cross-sectional design restricted the ability to establish causal relationships between the independent variables and maternal healthcare utilisation outcomes. Secondly, the reliance on self-reported data might have introduced recall bias, particularly in reporting past healthcare-seeking behaviours during pregnancy and childbirth. Social desirability bias might have also influenced responses, especially on sensitive topics such as decision-making autonomy and cultural beliefs. Lastly, the inability to have access to ANC booklets of participants encountered in the market, to verify ANC attendance.

3.14 Assumptions

This study was based on several underlying assumptions. It is assumed that respondents will provide honest and accurate responses during interviews and that they will be able to recall relevant details about their maternal healthcare experiences. It was also assumed that the structured questionnaire adequately captures the key constructs related to health-seeking behaviour and service utilisation. Additionally, the study presumed that the selected sample is representative of the broader population of women of reproductive age in the Ada West District and that external factors influencing service utilisation, such as national health policies, remain relatively stable during the data collection period.

3.12 Dissemination of Results

The findings of this study will be disseminated through submission of the thesis to the graduate school at Ensign Global University, presentation at academic conferences and seminars, and publication in peer-reviewed journals. Findings will be shared with the District Health Directorate of the Ghana Health Service in Ada West and will be discussed during review meetings that will include Doctors and Midwives. It will also be shared with stakeholders, such as the Ada West District Assembly, Chiefs and Community leaders, religious leaders, Civil society organisations and local Non-Governmental Organisations (NGOs) such as Indigenous Women Empowerment Network (IWEN) Ghana. This will inform interventions targeting Antenatal Care (ANC) uptake and early initiation, skilled birth attendance and facility delivery, emergency referral and transport of high-risk pregnancies and associated complications, health financing and NHIS enrolment, adolescent pregnancy and youth-friendly services, community engagement and social norms and overall health system quality.

CHAPTER FOUR

4.0 RESULTS

4.1 Introduction

This chapter presents the findings of the study on ANC and delivery utilisation among women of reproductive age in the Ada West District of the Greater Accra Region, Ghana. The results are organised according to the study objectives. Both descriptive and inferential statistics are presented where appropriate, while supported by tables and figures where necessary. A total of 362 questionnaires were administered to the respondents, and all were retrieved as cleaned data and used for the final analysis, thereby yielding a 100% response rate.

4.2 Sociodemographic Characteristics of Participants

A total of 362 respondents participated in the study. The majority (53.31%) were aged between 26 and 35 years, followed by 25.14% aged 15 to 25 years, 20.17% aged 36 to 45 years, and 1.38% aged 45 years and older. Regarding educational attainment, 36.46% of respondents had completed SSS/SHS/Vocational education, 24.59% had Middle/JSS/JHS education, 18.23% had Primary education, 12.15% had Tertiary/Polytechnic education, while 8.56% had no formal education.

In terms of ethnicity, the Ga-Dangme and Krobo group constituted the majority (55.52%), followed by Ewe (10.77%), Akan (4.7%), and Other ethnic groups (8.29%). Most respondents (86.74%) identified as Christians, 11.88% as Muslims, and 1.38% as Traditionalists. Most respondents (96.69%) resided in rural areas, while only 3.31% lived in urban areas. Regarding employment status, 68.23% were informal or self-employed, 23.2% were not working, and 8.56% were formal or salaried workers.

Concerning the mode of delivery of their last child, 91.71% delivered vaginally, 6.35% had an emergency caesarean section, and 1.93% underwent a planned caesarean section.

In terms of marital status, 46.41% were married, 35.91% were cohabiting, 15.19% were single, and 2.49% were divorced, separated, or widowed. Regarding the number of children, 52.76% of respondents had 1–2 children, 33.98% had 3–4 children, and 13.26% had five or more children. Finally, 67.88% of respondents initiated antenatal care (ANC) early, while 32.32% initiated late.

Table 3 ***Sociodemographic Characteristics of Women in Ada West District***

Variable	Frequency (n=362)	Percentage (%)
Age in years		
15-25	91	25.14
26-35	193	53.31
36-45	73	20.17
45 and above	5	1.38
Highest educational level		
Middle/JSS/JHS	89	24.59
No Formal Education	31	8.56
Primary	66	18.23
SSS/SHS/Vocational	132	36.46
Tertiary/Poly	44	12.15
Ethnic group		
Akan	17	4.7
Ewe	39	10.77
Ga-Dangme and Krobo	276	55.52
Other	30	8.29
Religion		
Christianity	314	86.74
Muslim	43	11.88
Traditionalist	5	1.38
Place of Residence		
Rural	350	96.69
Urban	12	3.31
Employment Status		
Formal/Salary worker	31	8.56
Informal/Self-employed	247	68.23
Not Working	84	23.2
Mode of Delivery of last child		
Emergency Caesarean	23	6.35
Planned Caesarean	7	1.93
Vaginal	332	91.71
Marital status		
Co-habitation (living together)	130	35.91
Divorced/Separated/Widowed	9	2.49
Married	168	46.41
Single	55	15.19
Number of Children		
1-2 children	191	52.76

3-4 children	123	33.98
5+ children	48	13.26
ANC Initiation		
Early ANC	245	67.88
Late ANC	117	32.32

4.3 ANC Utilisation Among Women in Ada West District

Out of 362 respondents, the majority (95.03%) reported attending antenatal care (ANC), while 4.97% did not. Of those who attended ANC, 80.52% indicated they attended regularly, whereas 19.48% did not. Regarding the number of ANC visits, 90.99% of respondents had an adequate number of visits, while 9.01% had inadequate visits.

The main ANC provider for most respondents was the midwife (97.38%), followed by obstetricians/doctors (1.74%) and nurses (0.87%). Regarding the place of ANC attendance, 68.6% received care at a hospital or clinic, 30.23% at a health centre, and 1.16% at other or private facilities.

A little over half of the respondents (59.59%) reported no difficulty accessing ANC services, while 40.41% experienced difficulties. Among those who faced challenges, the main reasons cited were cost (60.11%), lack of family support (12.92%), poor physical condition (11.24%), access issues (10.11%), and other reasons (5.62%).

Table 4 ***ANC Utilisation Among Women in Ada West District***

Variable	Frequency (n=362)	Percentage
ANC Attendance		
No	18	4.97
Yes	344	95.03
Regular ANC Attendance		
No	67	19.48
Yes	277	80.52
Number of ANC Visits		
Inadequate	31	9.01
Adequate	313	90.99
ANC Provider		
Midwife	335	97.38
Nurse	3	0.87
Obstetrician/Doctor	6	1.74
ANC Place		
Health Centre	104	30.23
Hospital or Clinic	236	68.6
Other / Private Facility	4	1.16
Difficulty Accessing ANC		
No	205	59.59
Yes	139	40.41
Reasons for Difficulty (Multiple Responses)		
Cost	107	60.11
Access	18	10.11
Lack of family support	23	12.92
Poor physical condition	20	11.24
Other	10	5.62

4.4 Place of Delivery Utilised Among Women in Ada West District

Out of 362 respondents, the majority (81.22%) reported delivering at a health facility, while 18.78% had home deliveries. Among those who delivered in a facility, 54.76% did so in a public hospital or clinic, 43.88% at a health centre, 1.02% at a private facility, and 0.34% at a maternity home. For respondents who delivered outside a facility, 39.71% gave birth at home, 30.88% delivered with a traditional birth attendant (TBA), 16.18% at a spiritual or prayer centre, 10.29% on the way to the hospital, and 2.94% in other locations.

Regarding delivery assistance, 80.94% of respondents were attended to by qualified health personnel, while 19.06% were not. Among those assisted by skilled personnel, 91.47% were attended to by a midwife, 6.48% by a doctor, and 2.05% by a nurse. Among those assisted by non-qualified attendants, 43.48% were helped by a traditional birth attendant (TBA), 23.19%

by a family member, 20.29% delivered on their own, and 13.04% were assisted by others. Among the women who did not deliver at a facility, 95.59% of them were not delivered by a qualified health personnel, whilst 4.41% were assisted by skilled health personnel despite not delivering in a health facility.

Table 5: ***Place of Delivery Among Women in Ada West District***

Variable and Category	Frequency (n=362)	Percentage
Facility Delivery		
No	68	18.78
Yes	294	81.22
Type of Facility		
Health Centre	129	43.88
Public Hospital/Clinic	161	54.76
Maternity Home	1	0.34
Private Facility	3	1.02
Home Delivery Place		
With a TBA	21	30.88
Home	27	39.71
Spiritual/Prayer Centre	11	16.18
On the way to the hospital	7	10.29
Other	2	2.94
Delivery by Skilled Personnel		
No	69	19.06
Yes	293	80.94
Skilled Delivery Among Women Who Didn't Deliver in a Facility		
No	65	95.59
Yes	3	4.41
Type of Qualified Personnel		
Midwife	268	91.47
Doctor	19	6.48
Nurse	6	2.05
Delivery Attendant (Non-Qualified)		
Traditional Birth Attendant (TBA)	30	43.48
Family Member	16	23.19
Self-Assisted	14	20.29
Other	9	13.04

4.5 Sociodemographic Factors Influencing Health Facility Delivery Among Women in Ada West District

The table below presents the association between sociodemographic and maternal factors and facility delivery among respondents. A higher proportion of respondents aged 26–35 years (86.0%) delivered at a facility compared to those aged 15–25 years (78.0%), 36–45 years

(74.0%), and 45 years and above (60.0%), although the difference was not statistically significant ($\chi^2 = 7.50$, $p = 0.058$).

Educational level showed a significant association with facility delivery ($\chi^2 = 25.41$, $p < 0.001$). Respondents with no formal education were significantly less likely to deliver at a facility compared to those with Middle/JSS education (AOR = 0.32; 95% CI: 0.10–1.00; p = 0.049).

Ethnicity was also significantly associated with facility delivery ($\chi^2 = 13.01$, $p = 0.011$). After adjustment, none of the ethnic groups showed a statistically significant association with facility delivery, although respondents of Krobo ethnicity had higher odds of delivering in a facility compared to the Akan group (AOR = 2.88; 95% CI: 0.69–12.03; p = 0.147).

Religion was not significantly associated with facility delivery ($\chi^2 = 1.50$, $p = 0.473$).

Place of residence showed a significant association with facility delivery ($\chi^2 = 4.26$, $p = 0.039$). However, after adjustment, the association was no longer significant (AOR = 0.93; 95% CI: 0.16–5.27; p = 0.932). Employment status was significantly associated with facility delivery ($\chi^2 = 9.41$, $p = 0.009$). Nonetheless, after adjustment, the relationship was not statistically significant (AOR = 0.67; 95% CI: 0.12–3.77; p = 0.647).

Marital status was significantly associated with facility delivery ($\chi^2 = 16.91$, $p = 0.001$). After adjustment, respondents who were divorced, separated, or widowed were significantly less likely to deliver in a facility compared to those cohabiting (AOR = 0.15; 95% CI: 0.02–0.90; p = 0.038).

The number of children was also significantly associated with facility delivery ($\chi^2 = 26.41$, $p < 0.001$). Respondents with 3–4 children (AOR = 0.43; 95% CI: 0.20–0.92; p = 0.029) and those with five or more children (AOR = 0.19; 95% CI: 0.07–0.49; p = 0.001) were significantly less likely to deliver in a facility compared to those with 1–2 children. Mode of delivery ($\chi^2 = 0.94$,

p = 0.624), child's sex ($\chi^2 = 2.56$, p = 0.110), and ANC initiation ($\chi^2 = 0.76$, p = 0.385) were not significantly associated with facility delivery.

Table 6 ***Sociodemographic Factors Influencing Health Facility Delivery Among Women in Ada West District***

Variable	Facility Delivery		χ^2 (p-value)	AOR (95% CI)	p-value
	Yes (%)	No (%)			
Age (years)			7.50 (0.058)		
15-25 (Ref)	71 (78.0)	20 (22.0)		1	
26-35	166 (86.0)	27 (14.0)		1.50 (0.66,3.45)	0.334
36-45	54 (74.0)	19 (26.0)		1.24 (0.43,3.54)	0.694
45+	3 (60.0)	2 (40.0)		1.37 (0.11,17.78)	0.811
Education			25.41 (<0.001)		
Middle/JS (Ref)	74 (83.2)	15 (16.8)		1	
No Formal	19 (61.3)	12 (38.7)		0.32 (0.10, 1.00)	0.049
Primary	44 (66.7)	22 (33.3)		0.69 (0.30, 1.62)	0.399
SSS/SHS/Vocational	116 (87.9)	16 (12.1)		1.47 (0.64, 3.39)	0.366
Tertiary/Poly	41 (93.2)	3 (6.8)		6.64 (0.94, 46.78)	0.057
Ethnicity			13.01 (0.011)		
Akan (Ref)	11 (64.7)	6 (35.3)		1	
Ewe	29 (74.4)	10 (25.6)		0.90 (0.20, 4.01)	0.889
Ga-Dangme	126 (77.8)	36 (22.2)		1.23 (0.33, 4.55)	0.755
Krobo	104 (91.2)	10 (8.8)		2.88 (0.69, 12.03)	0.147
Other	24 (80.0)	6 (20.0)		5.54 (0.84, 36.32)	0.075
Religion			1.50 (0.473)		
Christian (Ref)	256 (81.5)	58 (18.5)			
Muslim	35 (81.4)	8 (18.6)			
Traditionalist	3 (60.0)	2 (40.0)			
Residence			4.26 (0.039)		
Rural (Ref)	287 (82.0)	63 (18.0)		1	
Urban	7 (58.3)	5 (41.7)		0.93 (0.16, 5.27)	0.932
Employment			9.41 (0.009)		
Formal/Salaried (Ref)	28 (90.3)	3 (9.7)		1	
Informal/Self-employed	207 (83.8)	40 (16.2)		1.80 (0.32, 10.24)	0.509
Not Working	59 (70.2)	25 (29.8)		0.67 (0.12, 3.77)	0.647
Marital Status			16.91 (0.001)		
Co-habitating (Ref)	107 (82.3)	23 (17.7)		1	
Divorced/Separated/Widowed	3 (33.3)	6 (66.7)		0.15 (0.02, 0.90)	0.038

Married	143 (85.1)	25 (14.9)		1.69 (0.80, 3.56)	0.172
Single	41 (74.5)	14 (25.5)		0.86 (0.32, 2.31)	0.766
Number of Children			26.41 (<0.001)		
1-2 children (Ref)	169 (88.5)	22 (11.5)		1	
3-4 children	98 (79.7)	25 (20.3)		0.43 (0.20, 0.92)	0.029
5+ children	27 (56.3)	21 (43.7)		0.19 (0.07, 0.49)	0.001
Mode of Delivery			0.94 (0.624)		
Emergency C-section (Ref)	20 (87.0)	3 (13.0)			
Planned C-section	5 (71.4)	2 (28.6)			
Vaginal	269 (81.0)	63 (19.0)			
Child's Sex			2.56 (0.110)		
Female (Ref)	137 (77.8)	39 (22.2)			
Male	157 (84.4)	29 (15.6)			
ANC Initiation			0.76 (0.385)		
Early ANC (Ref)	202 (82.4)	43 (17.6)			
Late ANC	92 (78.6)	25 (21.4)			

4.6 Influence of ANC Utilisation on Health Facility Delivery Among Women in Ada West District

The table below presents the relationship between ANC-related factors and facility delivery among respondents. A significant association was found between ANC attendance and facility delivery ($\chi^2 = 16.79$, $p < 0.001$). Women who attended ANC were more likely to deliver at a facility compared to those who did not. However, ANC attendance was omitted from the multivariable model due to collinearity.

Regular ANC attendance was significantly associated with facility delivery ($\chi^2 = 32.61$, $p < 0.001$). After adjustment, respondents who attended ANC regularly were over three times more likely to deliver at a facility compared to those who did not (AOR = 3.22; 95% CI: 1.49–6.95; $p = 0.003$).

The number of ANC visits was also significantly associated with facility delivery ($\chi^2 = 29.35$, $p < 0.001$). Respondents with adequate ANC visits were more likely to deliver at a facility than those with inadequate visits, although the association was not significant after adjustment (AOR = 1.93; 95% CI: 0.69–5.43; $p = 0.213$).

A significant association was observed between place of treatment and facility delivery ($\chi^2 = 33.86$, $p < 0.001$). Respondents who sought care at a health facility were more likely to deliver in a facility, but this relationship was not significant after adjustment (AOR = 3.40; 95% CI: 0.28–41.78; $p = 0.339$). Receiving enough information during ANC was also significantly associated with facility delivery ($\chi^2 = 9.17$, $p = 0.002$). However, after adjustment, the association was not statistically significant (AOR = 5.46; 95% CI: 0.37–79.68; $p = 0.215$).

Table 7: ***Influence of ANC Utilisation on Health Facility Delivery Among Women in Ada West District***

Variable and Category	Facility Delivery		χ^2 (p-value)	AOR (95% CI)	p-value
	Yes (%)	No (%)			
ANC Attendance			16.79 (<0.001)	Omitted (collinearity)	
No (Ref)	8 (44.4)	10 (55.6)			
Yes	286 (83.1)	58 (16.9)			-
Regular ANC			32.61 (<0.001)		
No (Ref)	40 (59.7)	27 (40.3)		1	
Yes	246 (88.8)	31 (11.2)		3.22 (1.49, 6.95)	0.003
ANC Visits Adequacy			29.35 (<0.001)		
Inadequate (Ref)	15 (48.4)	16 (51.6)		1	
Adequate	271 (86.6)	42 (13.4)		1.93 (0.69, 5.43)	0.213
Treatment Place			33.86 (<0.001)		
Other (Ref)	1 (25.0)	3 (75.0)		1	
Self-treatment	5 (41.7)	7 (58.3)		1.20 (0.07, 21.02)	0.903
Health Facility	278 (85.0)	49 (15.0)		3.40 (0.28, 41.78)	0.339
Herbalist/Spiritualist	10 (52.6)	9 (47.4)		1.56 (0.10, 24.48)	0.753
Received Enough Information			9.17 (0.002)		
No (Ref)	2 (33.3)	4 (66.7)		1	
Yes	292 (82.0)	64 (18.0)		5.46 (0.37, 79.68)	0.215

4.7 Pregnancy and Perception-Related Factors Influencing Health Facility Delivery Among Women in Ada West District

The table below presents the relationship between pregnancy-related, health service, and perception factors and facility delivery among respondents. A significant association was found between planned pregnancy and facility delivery ($\chi^2 = 9.68$, $p = 0.002$). Women with planned pregnancies were significantly more likely to deliver at a facility compared to those with unplanned pregnancies (AOR = 3.93; 95% CI: 1.38–11.14; $p = 0.010$).

Working during pregnancy was significantly associated with facility delivery at the bivariate level ($\chi^2 = 4.79$, $p = 0.029$). However, after adjustment, the association was not statistically significant (AOR = 0.82; 95% CI: 0.40–1.68; $p = 0.586$).

Health status showed a strong and significant relationship with facility delivery ($\chi^2 = 22.93$, $p < 0.001$). Compared to those with fair health, respondents who reported good health (AOR = 2.37; 95% CI: 1.07–5.25; $p = 0.033$) and very good health (AOR = 11.36; 95% CI: 2.36–54.74; $p = 0.002$) were significantly more likely to deliver at a health facility.

The availability of maternal health services was significantly associated with facility delivery ($\chi^2 = 6.88$, $p = 0.009$). Respondents who reported that maternal services were available were more likely to deliver in a facility compared to those who did not (AOR = 6.84; 95% CI: 1.17–40.14; $p = 0.033$). Health worker attitude was significantly associated with facility delivery ($\chi^2 = 27.16$, $p < 0.001$). Respondents who rated provider attitude as poor were less likely to deliver at a facility, although this association was not significant after adjustment (AOR = 0.24; 95% CI: 0.04–1.44; $p = 0.118$).

Distance to the health facility was also significantly associated with facility delivery ($\chi^2 = 8.45$, $p = 0.015$). Respondents living less than 5 km from a facility were significantly less likely to deliver in a facility compared to those living 5–10 km away (AOR = 0.26; 95% CI: 0.10–0.67;

p = 0.006). Finally, perception of care showed a strong association with facility delivery (χ^2 = 29.09, p < 0.001). Respondents with a high perception of care were significantly more likely to deliver in a facility compared to those with a low perception of care (AOR = 3.98; 95% CI: 1.79–8.82; p = 0.001).

Table 8 ***Pregnancy and Perception Related Factors Influencing Health Facility Delivery Among Women in Ada West District***

Variable	Facility Delivery		χ^2 (p-value)	AOR (95% CI)	p-value
	Yes (%)	No (%)			
Planned Pregnancy			9.68 (0.002)		
No (Ref)	222 (77.9)	63 (22.1)		1	
Yes	72 (93.5)	5 (6.5)		**3.93 (1.38, 11.14)**	**0.01**
Working During Pregnancy			4.79 (0.029)		
No (Ref)	70 (73.7)	25 (26.3)		1	
Yes	224 (83.9)	43 (16.1)		0.82 (0.40, 1.68)	0.586
Health Status			22.93 (<0.001)		
Fair (Ref)	30 (57.7)	22 (42.3)		1	
Good	233 (84.4)	43 (15.6)		**2.37 (1.07, 5.25)**	**0.033**
Very Good	31 (91.2)	3 (8.8)		**11.36 (2.36, 54.74)**	**0.002**
Maternal Services Available			6.88 (0.009)		
No (Ref)	3 (42.9)	4 (57.1)		1	
Yes	291 (82.0)	64 (18.0)		**6.84 (1.17, 40.14)**	**0.033**
Health Worker Attitude			27.16 (<0.001)		
Excellent (Ref)	14 (82.4)	3 (17.6)		1	
Fair	63 (78.8)	17 (21.2)		0.69 (0.14, 3.55)	0.66
Good	177 (86.8)	27 (13.2)		0.94 (0.20, 4.36)	0.933
Poor	11 (44.0)	14 (56.0)		0.24 (0.04, 1.44)	0.118
Very Good	29 (80.6)	7 (19.4)		0.49 (0.08, 2.80)	0.42
Distance to Facility			8.45 (0.015)		
5-10 km (Ref)	223 (83.5)	44 (16.5)		1	
<5 km	25 (64.1)	14 (35.9)		**0.26 (0.10, 0.67)**	**0.006**
>10 km	46 (82.1)	10 (17.9)		0.96 (0.41, 2.26)	0.93
Perception of Care			29.09 (<0.001)		
Low (Ref)	27 (55.1)	22 (44.9)		1	
Moderate	41 (75.9)	13 (24.1)		1.82 (0.70, 4.73)	0.218
High	226 (87.3)	33 (12.7)		**3.98 (1.79, 8.82)**	**0.001**

CHAPTER FIVE

5.0 DISCUSSION

5.1 Introduction

This chapter discusses the main findings of the study on how women in the Ada West District seek health services and use maternity care. The discussion follows the study's goals and places the findings in the context of maternal health research in Ghana and similar areas. By comparing our results with existing studies, we can gain a clearer picture of the unique and common factors that influence maternal service use in this district.

5.2 Utilisation of Antenatal Care Services

The near-universal ANC attendance (95.0%) in this study exceeds Ghana’s average within the 2022 Ghana Demographic and Health Survey (GDHS) and is also higher than rates from similar studies done among other rural districts. For instance, a study by Aboagye et al. (2024) reported knowledge gaps despite high levels of awareness, while the current study indicates not just awareness but high exposure to services. This suggests that ANC promotion within Ada West has helped promote new service utilization. Dominance by midwives (97.4%) as the initial provider aligns with Ghana's policy for task-shifting to midwife-led care for improving access, as also observed in other sub-Saharan countries.

However, this high coverage has a dramatic contrast with the severe reported impediments. That 40.4% indicated difficulty, the bulk of which was cost (60.1%), is a familiar refrain in maternal health literature. Research conducted by Shawel et al. (2023) in low-resource settings reported money as the primary impediment despite services being nominally free due to associated indirect costs such as transportation and missed wages. This study supports that abolishing user fees alone

is insufficient without removing these ancillary charges. A significant drawback of our research, however, was being unable to physically verify ANC visits from booklets for everyone, as some were met in the community without their records. This application of self-reporting is a common drawback of cross-sectional surveys and may result in overestimation of healthy behaviour.

5.3 Place of Delivery and Skilled Assistance

This study found an 81.2% facility delivery rate in Ada West, which is noteworthy and higher than the national average of 79% reported in the 2022 GDHS. This is a positive local development. However, the 18.8% non-facility delivery rate is a public health concern. Skilled delivery assessment for women who failed to deliver in a facility reveals that there is a significant gap: 95.6% of these women also didn't receive skilled birth attendance, predominantly relying on TBAs, family members, or themselves. This finding is consistent with a study conducted by Abredu et al. (2024), where it was also seen that non-facility delivery is strongly associated with no skilled attendant being present, indicating a persistent failure at the final step in completing the transition from ANC to skilled delivery.

This lack of activation identifies a "leakage" in the continuum of care. Even though women are engaged during pregnancy, this engagement is not necessarily translated into enhanced delivery practices (Fry et al., 2023). The phenomenon has been experienced elsewhere; for example, studies in Kenya suggested that women might view ANC as a pregnancy and delivery service as two separate incidents, with fewer logistical, economic, or cultural considerations during past ANC visits (Chimatiro et al., 2018). The over-reliance on TBAs (43.5% of non-facility deliveries) shows that faith in the conventional system remains a primary consideration that public health initiatives must address and integrate with dignity.

5.4 Factors Determining Utilisation of Facility Delivery

The association between higher education and facility delivery is one of the most consistent findings in global maternal health literature, observed in studies conducted in Kenya. Education empowers women with health knowledge and increases their autonomy in decision-making (Nguyen, 2025). Similarly, the inverse relationship between parity and facility delivery is well-documented. As found by Zhang et al. (2021), women with more children often perceive less risk based on previous uneventful deliveries, leading to a "complacency effect." The finding that divorced, separated, or widowed women were less likely to deliver in a facility highlights the role of social support, a factor sometimes less emphasised than economic status but crucial in patriarchal societies.

The powerful role of regular ANC attendance as an independent predictor of facility delivery is an important finding. This is consistent with a study in the Ashanti Region by Abuosi et al. (2024), which also found that consistent engagement was more critical than the number of visits alone. The argument is that regular contact provides more opportunities for health education, building trust with providers, and developing a birth preparedness plan. While this study, being cross-sectional, cannot establish causality, the strong association supports the hypothesis that consistent, high-quality ANC, rather than sporadic attendance, is a crucial pathway to promoting facility-based deliveries. This is a nuanced but important distinction for program planners.

The influence of perceived service availability and quality on facility delivery is supported by the Health Belief Model and empirical studies. For example, a study in Switzerland found that women's perception of poor-quality care was a stronger deterrent than actual distance (Gemperle et al., 2021). The finding that women living <5 km from a facility were less likely to deliver there compared to those 5-10 km away has also been observed. Proximity leads to a false sense of

security, causing delays in decision-making when labour begins, whereas those farther away make more concrete and timely arrangements (Armstrong & Kenyon, 2015). This contrasts with studies that show a straightforward linear relationship between distance and utilisation, suggesting that perceptual and behavioural factors can sometimes override pure geography.

The association between planned pregnancy and facility delivery has been established in previous studies (Dona & Mue, 2024; Duodu *et al.* 2022), and this study confirms its relevance in the Ghanaian context. A wanted pregnancy is more likely to involve planned investment in health resources. Furthermore, the association between better self-rated health and facility delivery suggests that women who value preventive care for maintaining good health are also more likely to seek skilled delivery—a marker of positive health-seeking behaviour overall.

5.5 Chapter Summary

In conclusion, while Ada West District demonstrates strong performance in ANC uptake, it faces a familiar challenge in bridging the gap to universal facility delivery. The determinants uncovered—education, parity, marital support, the quality of ANC, and perceptions of care—are consistent with the broader literature on maternal health in low- and middle-income countries. However, the specific strength of regular ANC (over mere attendance) and the paradoxical effect of short distance offer refined insights for local intervention. The findings suggest that future efforts must evolve from simply promoting ANC visits to enhancing the educational and motivational quality of those visits, implementing targeted support for high-parity and socially vulnerable women, and addressing the perceptual and financial barriers that persist even for women who are already engaged with the health system during pregnancy.

CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

This chapter provides a summary of the key findings from the study on health-seeking behaviour and maternity service utilisation in the Ada West District. It presents the study's conclusions and offers evidence-based recommendations for policy, practice, and future research, grounded in the study's theoretical perspective and the empirical results.

6.2 Conclusion

This study has revealed a high level of antenatal care (ANC) utilisation among women in the Ada West District, demonstrating significant success in engaging pregnant women with the health system. However, this high ANC contact does not universally translate into facility-based deliveries, indicating a critical gap in the continuum of care. The findings indicate that while socio-demographic factors like education, parity, and marital status play a significant role, the quality and consistency of ANC, specifically regular attendance, are pivotal in influencing a woman's decision to deliver in a health facility. Furthermore, perceptual factors, including the perceived availability of services and the quality of care, are powerful determinants that can either facilitate or hinder facility delivery. The persistence of financial barriers and the complex role of geographical proximity highlight the multifaceted nature of the challenges. Ultimately, achieving universal facility delivery requires moving beyond merely promoting service attendance to addressing these deeper, interconnected barriers.

6.3 Recommendations

Based on the findings of this study, the following recommendations are proposed:

1. The Ada West District Health Directorate should strengthen the educational and motivational content of Antenatal Care (ANC) sessions. This should move beyond routine check-ups to explicitly emphasise the importance of skilled birth attendance and develop personalised birth plans with each pregnant woman. This intervention should particularly target high-parity women (those with 3 or more children) who demonstrated a significantly lower likelihood of facility delivery.
2. The District Health Management Team, in collaboration with the National Health Insurance Authority, should develop strategies to mitigate the indirect costs of accessing delivery services. This could involve exploring transportation vouchers or community-based savings schemes to address the financial barrier, which was the most frequently cited challenge, thereby making facility delivery more accessible for all women, especially the self-employed and unemployed.
3. The Sege Polyclinic, in collaboration with its subordinate health centres (Anyamam and Bonikope) and CHPS compounds, must invest in continuous professional development for healthcare providers. Training should focus on improving client-facing communication skills and fostering positive, respectful attitudes. Positive interactions during ANC can build trust and significantly influence a mother's decision to return to the facility for delivery.
4. There should be a fostered collaboration among community leaders, religious figures, and the Health Directorate to create a supportive environment for facility delivery. Engaging these local influencers can help promote the importance of skilled birth attendance, address

cultural beliefs that may favour home deliveries, and provide social support, particularly for single, divorced, or widowed women who were identified as a vulnerable group.

5. Future research should employ a mixed-methods approach to qualitatively explore the paradoxical finding that women living closest to health facilities (<5 km) were less likely to use them for delivery. Understanding the underlying reasons, such as perceptions of convenience, past negative experiences, or cultural factors, would provide deeper insights for designing targeted community-level interventions.

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APPENDICES

APPENDIX I: INFORMED CONSENT

(for participants aged 18 and above or guardians of minors)

Title of Study: ***Antenatal Care And Delivery Services Utilisation Among Women Aged 15–49 Years In Ada West District, Greater Accra Region, Ghana***

Introduction:

Hello,

My name is Frederick Afachao, and I am a researcher at Ensign Global University. I am conducting a study as part of my academic work on Antenatal care and delivery services utilisation among women aged 15–49 years in Ada West District.

Your experiences and insights will be valuable for this study, which is for academic purposes and may help inform better maternal health services in Ghana. Please take time to read this form and ask questions before deciding to participate. If you are under 18 years old, your parent or guardian will also need to give permission.

Purpose of the Study:

This study seeks to examine Antenatal care and delivery services utilisation among women aged 15–49 in the Ada West District.

Procedures:

If you agree to participate, you will be asked to respond to a questionnaire regarding your Antenatal care and delivery services utilisation. This will take approximately 20–30 minutes. Your responses will be collected face-to-face by trained field personnel or the researcher.

Voluntary Participation:

Participation is completely voluntary. You can choose to stop at any time or skip any questions without any consequences.

Risks and Discomforts:

This study involves minimal risks. Some questions may be personal or sensitive. If you feel uncomfortable at any time, you may choose not to respond or stop the interview.

Benefits:

While there may be no direct benefits to you personally, your participation may contribute to improving maternal healthcare policies and service delivery in the district and beyond.

Confidentiality:

All responses will be kept strictly confidential. Your name and identity will not be recorded in the final report. Data will be stored securely and accessible only to the research team for academic use.

Questions and Contacts:

If you have questions about this study or your rights as a participant, you may contact:

Principal Investigator:

Dr. Frederick Dodzi Kofi Afachao

Ensign Global University, Kpong

frederick.afachao@st.ensign.edu.gh

Tel: 0243571092

Project Supervisor:

Dr. Sandra Kushitor

Ensign Global University, Kpong

This study has been reviewed and approved by the Institutional Review Board (IRB) of Ensign Global University. For questions regarding your rights as a participant, you may contact the IRB at 0245762229 or registrar@ensign.edu.gh.

Statement of Consent:

By signing below, you confirm that:

- You have read or had this form explained to you.
- You understand the purpose, procedures, risks, and benefits of the study.
- You voluntarily agree to take part.

Participant's Consent

Name of Participant (in block letters): _____

Signature/Thumbprint: _____ Date: _____

Parent/Guardian Consent (for minors):

Name of Parent/Guardian: _____

Relationship to Participant: _____

Signature: _____ Date: _____

Researcher's Declaration:

I have explained the purpose, procedures, and risks of the study to the participant, and I believe they understand and have voluntarily agreed to participate.

Researcher's Name: _____

Signature: _____ Date: _____

APPENDIX II – ASSENT FORM

(for participants under 18 years old)

Title of Study: ***Antenatal Care and delivery services utilisation among women aged 15–49 Years in Ada West District, Greater Accra Region, Ghana***

Introduction:

Hello,

My name is Frederick Afachao. I am doing a research study to learn how women, including young women like you, utilise Antenatal care and delivery services. We want to learn how services like antenatal care and health facility delivery are used and what helps or prevents women from using them.

What Will Happen?

If you agree to be part of the study, you will be asked some questions about where and how you sought care during pregnancy and childbirth. This should take about 20 to 30 minutes.

Do You Have to Join?

No, you do not have to participate. It is your choice. If you start and later change your mind, that's okay. You can stop at any time, and no one will be upset with you.

Will It Be Hard or Uncomfortable?

Most questions are simple, but some might feel personal. If any question makes you feel uncomfortable, you do not have to answer it. You can also stop the interview at any time.

Will Your Answers Be Shared?

No. Everything you say will be kept private. Your name will not appear in any report, and no one, not your parents or anyone else, will know your answers.

Are There Any Good Things About This Study?

You might not get anything directly, but your answers can help healthcare providers understand how to make services better for young women like you in the future.

Questions?

If you have any questions, feel free to ask the researcher or talk to your parent or guardian.

Assent Statement:

I understand what the study is about and what I will be asked to do. I know I can stop at any time. I have had a chance to ask questions and agree to take part.

Name of Participant (in block letters): _____

Signature/Thumbprint: _____ Date: _____

APPENDIX III – ETHICAL CLEARANCE

GHANA HEALTH SERVICE
DISTRICT HEALTH DIRECTORATE
ADA WEST

P. O. Box AF 18, Sege – Ada.
Digital Address: GX - 0000 - 4582

Quote this number and date on all correspondence
My Ref. No: GHS/ADW/DHD/HASS/105/25
Your Ref. No: _____
Date: 14th AUGUST, 2025

THE ACADEMIC REGISTRAR
ENSIGN GLOBAL UNIVERSITY
KPONG- EASTERN REGION

PERMISION TO CARRY OUT A RESEARCH STUDY IN HEALTH FACILITIES AND SERVING COMMUNITIES IN ADA WEST DISTRICT

DR. FREDERICK D.K. AFACHAO- MASTER OF PUBLIC HEALTH CANDIDATE, ENSIGN GLOBAL UNIVERSITY, KPONG-EASTERN REGION

Management of the Ada West Health Directorate grants permission to Dr. Frederick D.K. Afachao, a Master of Public Health candidate of Ensign Global University, Kpong-Eastern Region to carry out a Research Study in its Health facilities and their serving communities, titled *HEALTH-SEEKING BEHAVIOUR AND HEALTHCARE UTILIZATION DURING PREGNANCY AND CHILDBIRTH AMONG WOMEN AGED 15-49 YEARS IN ADA WEST DISTRICT, GREATER ACCRA REGION, GHANA.*

The candidate will be accorded the necessary support for a successful exercise.

Thank you.

DR. MAXWELL W. ONASSIS -FIADJOE
AG. DISTRICT DIRECTOR OF
HEALTH SERVICES
ADA WEST DISTRICT

DR. MAXWELL W. ONASSIS-FIADJOE
AG. DISTRICT DIRECTOR OF HEALTH SERVICES
ADA WEST DISTRICT

Cc: ***Dr. Frederick D.K. Afachao, MPH candidate, Ensign Global University, Kpong-ER***

APPENDIX IV – SURVEY QUESTIONNAIRE

Questionnaire Number……

Date……/……/…….

TOPIC: ANTENATAL CARE AND DELIVERY SERVICES UTILISATION AMONG WOMEN AGED 15–49 YEARS IN ADA WEST DISTRICT, GREATER ACCRA REGION, GHANA

INSTRUCTIONS: Tick or circle your choice(s) from the options given. Also, supply the answer where options are not provided to choose from.

(REMINDER ABOUT ELIGIBILITY: Women Aged 15-49 Years

SECTION A: SOCIO-DEMOGRAPHIC OR BACKGROUND INFORMATION

1. Age in years a. 15-25[ ] b. 26-35 [ ] c. 36 – 45 [ ] d. 45 and above [ ]

2. Highest completed educational level a. Primary[ ] b. Middle/JSS/JHS [ ]

c. SSS/SHS/Vocational [ ] d. Tertiary/Poly [ ] e. No Formal Education [ ]

3. Ethnic group a. Akan [ ] b. Ewe [ ] c. Krobo [ ] d. Ga-Dangbe e. Other [ ] Please Specify...

4. Religion a. Christianity [ ] b. Muslim [ ] c. Traditionalist [ ] d. Other [|

5. Place of Residence a. Urban [ ] b. Rural [ ]

6. Employment Status a. Formal/Salary worker [ ] b. Informal/Self-employed [ ] c. Not Working [ ] c. Others [ ] Please specify....

7. Mode of Delivery of last child a. Vaginal [ ] b. Emergency Caesarean [ ] c. Planned Caesarean [ ]

8. Number of children?.....

9. How old is your last child (In Months)?...Sex? Male [ ] Female[ ]

10. Marital status a. Married [ ] [ ] b. Single [ ] c. Co-habitation (living together) [ ] d. Divorced/Separated/Widowed [ ]

NOTE: (Only information relating to your Last pregnancy and/or childbirth as at the time of the study is being requested)

SECTION B: WOMEN'S BEHAVIOUR DURING PREGNANCY AND DELIVERY

11. What type(s) of health advice and practices did you mostly follow? a. Self-studied information from online/radio or tv [ ] b. Professional advice from health worker [ ]

c. Family/Friends advice [ ] d. Others [ ] Please specify e. don't know

12. Where did you go for treatment when you were faced with any pregnancy related illness?

a. Visited Health Facility [ ] b . Visited Herbalist/Spiritualist [ ] c. Self -Treatment at home d . Others [ ] . Specify....

13. Did you self-medicate whiles pregnant? a. Yes[ ] b . No [ ]

14. If Yes to the above, what kind of self-medication did you practice? a. Use of prepared

herbal concoction [ ] b. Use of chemical drug without prescription [ ]

c. Use of prescribed drug from past treatment [ ] d. Others [ ] Please specify....

15. Which aspects about pregnancy and childbirth were you interested in seeking information or education on? a. Mother's health [ ] b. Child's health [ ]b. Nutrition [ ]

c. Medication [ ] d. Others [ ] Please specify ....

16. Did you receive enough information on pregnancy and childbirth related issues?

a. Yes [ ] b. No [ ]

17. If No, what additional information did you desire or what was missing?

SECTION C : ANC UTILIZATION

Utilization of ANC Services during your last pregnancy

18. Did you attend any Antenatal (ANC) care? a. Yes [ ] b . No [ ]

19. If yes, did you seek full term/regular Antenatal care throughout the period of your last pregnancy? a. Y e s [ ] b. No [ ]

20. What was the gestational age of your first ANC visit? a. One Month [ ] b . Two Months [ ] c . Three Months [ ] d . Four Months [ ] e . Five Months [ ] f . Six months [ ] g . Others [ ] Please specify . . . .

21. How many ANC visits did you have during your last pregnancy?..... visits

22. Who was your ANC provider? a. Obstetrician or Health Center Doctor [ ]

b. Nurse [ ] c. Midwife [ ]d. Others [ ] Specify..

23. Which place did you often receive ANC? a. Hospital or Clinic [ ]

b. Health Center [ ] c . Private Facility [ ] d. Others [ ]Please specify.

24. Did you have any Difficulty receiving ANC?

a . Yes [ ] b. No [ ]

25. If yes, what reasons accounted for the difficulty? a. Cost [ ] b . Access [ ] c . Lack of family support [ ] d. Poor physical condition [ ] e . Others [ ] Please specify...

Questions related to delivery or Childbirth

26. Did you have your delivery in a health facility? a. Yes [ ] b . No [ ]

27. If Yes, which type of health facility? a. Public (Hospital or Clinic) [ ] b. Maternity Home [ ] c. Health Center [ ] d. Private health facility [ ]

28. If No to Question 26 above, where did you have your delivery? a. Home [J

b. Spiritual/Prayer Center [ ] c. On the way to the hospital [ ]

d. with TBA e. Other [ ] Please Specify

29. Was your delivery done by a qualified healthcare personnel? a. Yes [1 b . No [ ]

30. If Yes, who? a. Doctor [ ] b. Nurse [ ] c. Midwife [ ] d. Others [ ] specify.....

31. If No to Question 29 above, who attended to you? a. Traditional Birth Attendant (TBA) [ ] b. Family member [ ] c. Self-Assisted [ ] d. Others [ ] Please specify.....

SECTION D: FACTORS INFLUENCING WOMEN'S BEHAVIOUR

37. Did you have children before your last pregnancy? a. Yes [ ] b . No [ ]

38. Was your last pregnancy planned? a. Yes [ ] b. No [ ]

39. Did you face any difficulties during your last pregnancy? a. Yes[ ] b. No [ ]

40. If Yes, what kind of difficulty did you experience? a. Cost [ ]

b. Access [ ] c . Lack of family support [ ] d. Others [ ] Please Specify...

41. Did you face any difficulties with your previous pregnancy before your last pregnancy?

a. Yes [ ] b . No [ ] Not applicable [ ]

42. Were you actively working during your last pregnancy? a. Yes [ ]b. No [ ]

43. How much will you estimate your monthly income? (a) under 500 ghc [ ] (b) 500 to

1000 ghc [ ] (c) 1001 to 1500 ghc [ ] (d) Over 1500 ghc [ ] f. Not Applicable [ ]

44. What is your Family Structure? a. Nuclear Family [ ] b. Extended Family [ ]

45. Who is the head or takes most decisions in the family? a. Father [ ] b . Mother [ ]

c. Husband [ ] d . Self [ ] e. Others [ ] Please specify….

46. How will you rate your ability to make decisions on matters concerning your pregnancy

and childbirth? a. High [ ] b. Medium [ ] c. Low [ ]

47. How will you describe your health status during your last pregnancy? a. Fair [ ] b .Good [ ] c

. Very Good [ ]

48. Were there any available Maternity services in your community? a. Yes [ ] b. No [ ]

49. How will you describe the attitudes of health workers? a. Poor [ ] b. Fair [ ]

c. Good [ ] d . Very Good [ ] e . Excellent [ ]

50. How long is the distance to the nearest health facility? a. Less than 5 kilometers [ ]

b. 5 to 10 kilometers [ ] c. More than 10 kilometers [ ]

51. Did you receive any pregnancy related information on the radio/television/Phone/ social media? a. Yes [ ] b. No [ ], If yes, state which ...

52. Were your family/ friends supportive during the period of pregnancy and childbirth?

a. Yes [ ] b . No [ ]

53. If Yes, who was the most supportive family member? a. Husband [ ]

b. Mother/Mother-in-law [ ] c. Friend(s) [ ]

d. Others [ ] Please Specify....

54. Did you have an active Health Insurance during your last pregnancy? a. Yes [ ] b. No [ ]

55. How did you pay for your care? a. Personal Finance [ ] b . Health Insurance [ ]

c. Family support [ ] d. NGO or Philanthropic Support [ ]

e . Loan from Bank or People [ ] f. Others [ ] Please specify...

56. How will you describe the cost of maternity services during your last pregnancy and childbirth? a. High [ ] b. Moderate [ ] c. Low [ ] d. Not Applicable [ ]

SECTION E: WOMEN'S PERCEPTIONS ON ANC AND DELIVERY SERVICES

	QUESTIONS	RESPONSE	CODES
1.	A pregnant woman does not need to go to a hospital for regular checks to be safe	Agree [ ] Don't Know [ ] Don't Agree [ ]	0 0 1
2.	Antenatal care is more effective than self-treatment or the use of herbal medicine at home.	Agree [ ] Don't Know [ ] Don't Agree [ ]	1 0 0
3.	Antenatal care is good for every pregnant woman	Agree [ ] Don't Know [ ] Don't Agree [ ]	1 0 0
4.	Antenatal care is mostly recommended for first time pregnancy	Agree [ ] Don't Know [ ] Don't Agree [ ]	0 0 1
5.	Going for regular antenatal care helps to identify and reduce complications	Agree [ ] Don't Know [ ] Don't Agree [ ]	1 0 0

6.	Women who utilize Antenatal services are more likely to have better birth or pregnancy outcomes	Agree [ ] Don't Know [ ] Don't Agree [ ]	1 0 0
7.	Pregnant women are not treated with respect and dignity by health facility	Agree [ ] Don't Know [ ] Don't Agree [ ]	0 0 1
8.	8. It is safe and convenient to delivery at home than in the health facility	Agree [ ] Don't Know [ ] Don't Agree [ ]	0 0 1
9.	9. Health facility delivery is the sure way to reduce your risk to dying from birth	Agree [ ] Don't Know [ ] Don't Agree [ ]	1 0 0
10.	I believe that skilled attendant is the best person to assist my delivery	Agree [ ] Don't Know [ ] Don't Agree [ ]	1 0 0
11.	A woman who has experienced with childbirth does not need the presence of a skilled attendant in her subsequent delivery	Agree [ ] Don't Know [ ] Don't Agree [ ]	0 0 1

12.	The TBA in my village or time can give me all the assistance I need just as a skilled health worker	Agree [ ] Don't Know [ ] Don't Agree [ ]	0 0 1

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