

**ENSIGN GLOBAL COLLEGE
KPONG, EASTERN REGION, GHANA
DEPARTMENT OF COMMUNITY HEALTH**

**THE MATERNITY PROTECTION STATUS OF WORKING
MOTHERS IN GHANA**

BY

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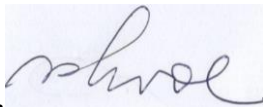
SEPTEMBER, 2023

DECLARATION

I, Philip Korbla Lavoe, declare that the content of this work is the outcome of my own research and has not been presented for any degree anywhere, with the exception of the use of elements from published sources that have been recognized and properly cited.

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DEDICATION

This work is dedicated to Almighty God for his unflinching love and grace that has enabled me to undertake this Project and also protected and guided me through the entire Masters of Public Health Programme.

I also want to thank my lovely wife and children for supporting me. Family and friends who encouraged me in diverse ways I dedicate this work to you all.

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ABBREVIATIONS

MP - Maternity Protection

MH - Maternal Health

ML - Maternity Leave

WHO- World Health Organization

CI- Confidence interval

AOR: Adjusted Odds Ratio

DHS: Demographic and Health Survey

GHDS: Ghana Demographic and Health Survey

STATA: Statistical Analysis Software

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ABSTRACT

Background: Maternal protection and the well-being of women in their reproductive age had gained increasing attention in global discourse. This study investigated the maternity protection status of women in Ghana. **Methods:** This was an analytical cross-sectional study conducted with secondary data from the Ghana Demographic and Health Survey (2014). STATA 17.0 statistical software was used to analyze the data retrieved. **Results:** The study used a sample of 1,598 participants. The majority were literate (76%) and identified as Christians (76%). Urban residents account for 51% of the sample, with the Akan ethnic group being predominant. Male household heads were more common (70.46%), and most participants worked in the informal sector (63.09%). Notably, 90.18% were not currently pregnant, and the majority did not have access to paid maternity leave (90.86%), while only 9.14% received paid maternity leave, primarily from their employers (92.7%). Significant associations were found in factors influencing maternity protection status. Age played a role, with odds ratios ranging from 3.28 (95% CI: 0.91-11.83) to 4.63 (95% CI: 1.61-15.2) for different age groups compared to the reference group (20-24). Education also significantly affected maternity protection status, with odds ratios ranging from 0.23 (95% CI: 0.14-0.40) to 0.21 (95% CI: 0.15-0.29) for women with different educational backgrounds compared to secondary education. Knowledge of ovulatory cycles, breastfeeding practices, occupation type, and health insurance coverage were associated with maternity protection status. **Conclusion:** This study provided vital insights into the complexities of maternity protection status among working mothers in the formal sector in Ghana. The findings emphasized the need for policy interventions and highlight regional disparities, awareness levels, and socio-economic influences on maternity protection. This study was in consonant with global efforts to empower women in their reproductive age and improved their overall well-being. **Keywords:** Maternity Protection, Maternal Health, Ghana, Maternity leave

CHAPTER ONE

INTRODUCTION

1.0 Background of Study

Although women's labour-force participation has expanded considerably, they continue to face a variety of obstacles, including access to employment, job security, salary equity, discrimination, and balancing the conflicting demands of work and family life, among others (Sharma, 2015). Providing maternal protection therefore, is not only an essential part of social justice and protection but also favourable for economic and social development (Pereira-Kotze *et al.*, 2022).

Maternity protection is a fundamental labour right that is recognized in significant international human rights treaties (Addati, Cassirer and Gilchrist, 2014). The tenets of the most recent International Labour Organization Maternity Protection Convention, 2000 (No. 183) are dedicated to protect pregnant women and those who have recently given birth (Addati, Cassirer and Gilchrist, 2014). They ensure prevention of exposure to health and safety hazards during and after pregnancy, the right to paid maternity leave, maternal and child health care, and breastfeeding breaks, protection against maternity discrimination and dismissal, and the guaranteed right to return to work after maternity leave (ILO, 2006).

Maternity income protection relates to better health outcomes for women and their children, such as breastfeeding establishment and maintenance, as well as increased emotional and psychological well-being (ILO and ECASSA, 2019). A systematic review and meta-analysis of 22 research found that maternity leave was associated with a lower risk of maternal death and morbidity, demonstrating the various advantages of maternity protection for mothers' health outcomes (Sharma, 2015). According to a study done in Ghana, having access to

skilled delivery assistance through maternity protection programs lowers the incidence of maternal mortality (Kwambai *et al.*, 2013). An Australian study discovered that women who were given lactation breaks were less likely to experience breastfeeding challenges and breast infections (Brown and Jordan, 2013). Maternity protection policies that ensure longer maternity leave periods can help reduce the risk of postpartum depression, improve birth outcomes, and promote the health and well-being of mothers and their infants (Kornfeind and Sipsma, 2018)

The ILO, as an agency of the United Nations prioritizes gender equality in all of its work to strengthen the framework for women's access to decent work, health, education, political and legal empowerment, among others (Sharma, 2015). Maternity protection helps to accomplish the Sustainable Development Goals (SDGs) 1 to end poverty; SDG 3 on healthy lifestyles, involving reproductive, maternity, and child health, and SDG 5 on gender equality and empowerment of women and girls (ILO and ECASSA, 2019). This builds on the achievements of the previous Millennium Development Goals (MDGs) 3 and 5 on gender equality promotion and women empowerment and improvement of maternal health respectively (Stumbitz *et al.*, 2017).

The most popular sources of funding for maternity leave cash benefits are: employment-related social insurance (contributory scheme); direct payment of maternity benefits by the employer ("employer liability"); or a combination of the two (Addati, Cassirer and Gilchrist, 2014). Eastern European and Central Asian countries, like 88% of developed economies, solely rely on social security programs. One of the most important goals of social and economic policy in Europe is to provide favorable conditions for increasing the birth rate, however this varies greatly across countries. For example, Ireland provides 13 weeks and

Albania provides 52 weeks maternity leave while most European countries pay 100% of past earnings (Shavaleyeva, Nikonova and Timerkhanov, 2017). Employer responsibility schemes are more popular in Africa, Asia, and the Middle East, where establishing maternity branches of social security systems presents significant obstacles (Addati, Cassirer and Gilchrist, 2014).

While nearly every country in the world has some type of maternity protection legislation, only approximately half of all countries fulfill the minimal 14-week requirement (Convention 183), and less than a quarter reach the suggested 18-week or longer need (Recommendation 191) (Nguyen *et al.*, 2022)

The current social security framework is likely to exacerbate gender bias both in the African setting and worldwide because most women work in the informal sector, while men tend to have greater rates of formal employment (ILO and ECASSA, 2019). Women and households headed by women are more susceptible when social insurance is limited mostly to the formal sector (Mokomane, 2013).

Despite increased interest in the topic of maternity protection, only a few nations in Eastern and Southern Africa have built a social insurance-based system of maternity income protection and these do not adequately protect women who are self-employed, domestic, agricultural, or temporary workers (ILO and ECASSA, 2019). This is same for Senegal where it was found that although detrimental to their health, 26 % of women farmers work until the day of childbirth (Addati, Cassirer and Gilchrist, 2014). While South Africa and Namibia have short-term social insurance funds, the majority of the sub-region have pension

funds but lack experience with short-term benefits, apart from medical coverage in some cases (Pereira-Kotze *et al.*, 2022).

Ghana has ratified the International Labor Organization's Maternity Protection Convention (No. 103) and offers 12 weeks paid maternity leave, which can be extended to 14 weeks due to complicated cases, reimbursed by the employer (Stumbitz *et al.*, 2017). Convention No. 103, ratified directly and fully by Ghana, states that employers are not personally accountable for the costs of maternity leave, however the national legislation (Labour Act 2003, Act 651), stipulates that employers will continue to pay maternity cash benefits (Stumbitz *et al.*, 2017). Employers frequently shoulder the full direct cost of maternity protection benefits when paid maternity leave is not covered by social insurance or public funding. This may provide impediments for hiring, retaining, and promoting female employees (ILO and ECASSA, 2019).

In the absence of considerable progress over the years, the ILO devised a project named "Building a Social Protection Floor for Pregnant Women and Nursing Mothers in Ghana," which was completed in 2008. The project aimed to provide a foundation of social protection for pregnant women and breastfeeding moms by boosting access to health care and employment opportunities. Given Ghana's strong informal economy, the ILO Transition from the Informal to the Formal Economy Recommendation, 2015 (No. 204), also offers guidelines for the extension of maternity protection for those employed in the informal economy, who are insufficiently or not covered by formal arrangements or social security benefits (Stumbitz *et al.*, 2017).

Ratification of Convention No. 183 would be a step forward for Ghana and might enable the introduction of additional measures to ensure non-discrimination employment policies linked to maternity, including employment protection during pregnancy and for a period following her return to work.

1.1 Statement of Problem

Maternity leave is an integral component of maternal protection, aimed at ensuring the well-being of women and children. It is designed to mitigate the challenges faced by working women during childbirth and childcare. Maternity leave serves as a crucial provision, allowing women to take time off work before and after giving birth without compromising their income or job security. This leave can significantly enhance the overall health outcomes of mothers, including their mental and physical well-being (Aitken et al., 2015).

However, not all women have equal access to adequate maternity leave and other forms of maternal protection. Globally, the International Labor Organization (ILO) reports that 830 million female workers still lack sufficient maternal protection, particularly regarding leave and income security during childbirth (Addati, Cassirer, & Gilchrist, 2014). In the context of Ghana, where approximately 80% of the workforce is engaged in the informal sector, many women encounter challenges in securing social security and face numerous hurdles in balancing their work and family responsibilities (Stumbitz et al., 2017). The gender disparity in self-employment without employees in Ghana further accentuates this issue, with 50.2% of women compared to 44.6% of men being self-employed (GSS, 2014).

Even among formal sector workers in Ghana, the current maternity leave policy provides only 12 weeks of paid leave, falling short of the International Labor Organization's minimum guideline of 14 weeks (Lewis et al., 2014).

Despite the implementation of the National Health Insurance Scheme's (NHIS) free maternal health care policy in 2008, which offers comprehensive maternal health care services to all pregnant women, regardless of their employment status or financial situation, the policy's funding and execution continue to face challenges (Azaare et al., 2020).

Hence, further research is essential to explore the impact of maternity leave and other maternal protection measures on maternal health outcomes in Ghana. Such research can inform the development and implementation of policies aimed at ensuring that all women have access to high-quality medical care and social security during pregnancy and the postpartum period (Stumbitz et al., 2017).

1.2 Rationale of the Study

Maternal protection is essential for ensuring women have safe pregnancies and deliveries and for lowering maternal mortality. One of the policies that can enhance maternal protection is maternity leave, which enables women to get prenatal care, facility delivery, and postpartum care without jeopardizing their financial stability.

Yet, maternity leave regulations vary from country to country and may affect maternal health outcomes differently based on personal and community factors. Maternity leave is provided for 12 weeks in Ghana (Labour Act, 2003), where the rate of maternal death has decreased from 740/100,000 in the late 1990s to 319/100,000 in 2015 (WHO, 2021). There is, however, no research to show how this policy impacts Ghana's maternal health outcomes and whether

it is adequate to satisfy the needs of expectant mothers(Azaare *et al.*, 2020). The proposed study intends to investigate the influence of maternity leave policy on maternal health outcomes and how maternity leave policy might be enhanced in Ghana to increase maternal protection and minimize maternal mortality.

The research is crucial for several reasons. First, it addresses a fundamental problem facing Ghanaian working moms, improving women's health and labor rights. Women and babies need maternal protection throughout pregnancy and delivery. This research examines Ghanaian working moms' maternity protection challenges and remedies.

Many will be interested in the study's findings. Policymakers and government authorities in Ghana will utilize these results to decide on maternity leave and working mother social protection. Women's rights and health policies improve when maternity protection gaps are understood. Ghanaian firms benefit from this research. They'll learn about women's requirements and establish maternity-friendly workplaces. Female employee morale, productivity, and retention may improve. Working parents gain most from this research. The findings will reveal their pregnancy and birthing rights. Results may help families negotiate better maternity protection for their children. Women's rights and maternity health NGOs and advocacy groups may benefit from the study. The results may increase awareness, lobby for legislative changes, and support working moms.

1.3 Conceptual Framework

This study's conceptual framework is built upon the principles outlined in the International Labor Organization's (ILO) Convention on Maternity Protection. The ILO recognizes that women of reproductive age constitute a vulnerable population that requires specific

employment safeguards and maternity protection (ILO and ECASSA, 2019). In Ghana, it's essential to acknowledge that women between the ages of 15 and 49 account for 49% of the total population, and they confront various sociodemographic challenges that can impact their access to maternity protection (GSS, 2014).

Maternity Leave as a Key Variable

The central focus of this framework is on maternity leave, which plays a pivotal role within the broader context of maternal protection. Maternity leave represents a fundamental component of maternity protection policies, enabling women to take time off work prior to and after childbirth, ensuring the preservation of their income and job security (Aitken et al., 2015).

Role of Maternity Leave

Maternity leave acts as a primary indicator of maternal protection status within the framework. It serves as both an outcome and an exposure variable:

- *As an Outcome:* Maternity leave is influenced by sociodemographic factors, including a woman's level of education, income, and social support, as well as structural laws and policies such as NHIS/insurance coverage. These factors impact her eligibility for and utilization of maternity leave benefits.
- *As an Exposure Variable:* Maternity leave, in turn, influences women's health outcomes, specifically antenatal care (ANC), skilled birth attendance (SBA), and postnatal care (PNC). Access to maternity leave can empower women to access

essential healthcare services during pregnancy and postpartum, thereby improving their health outcomes.

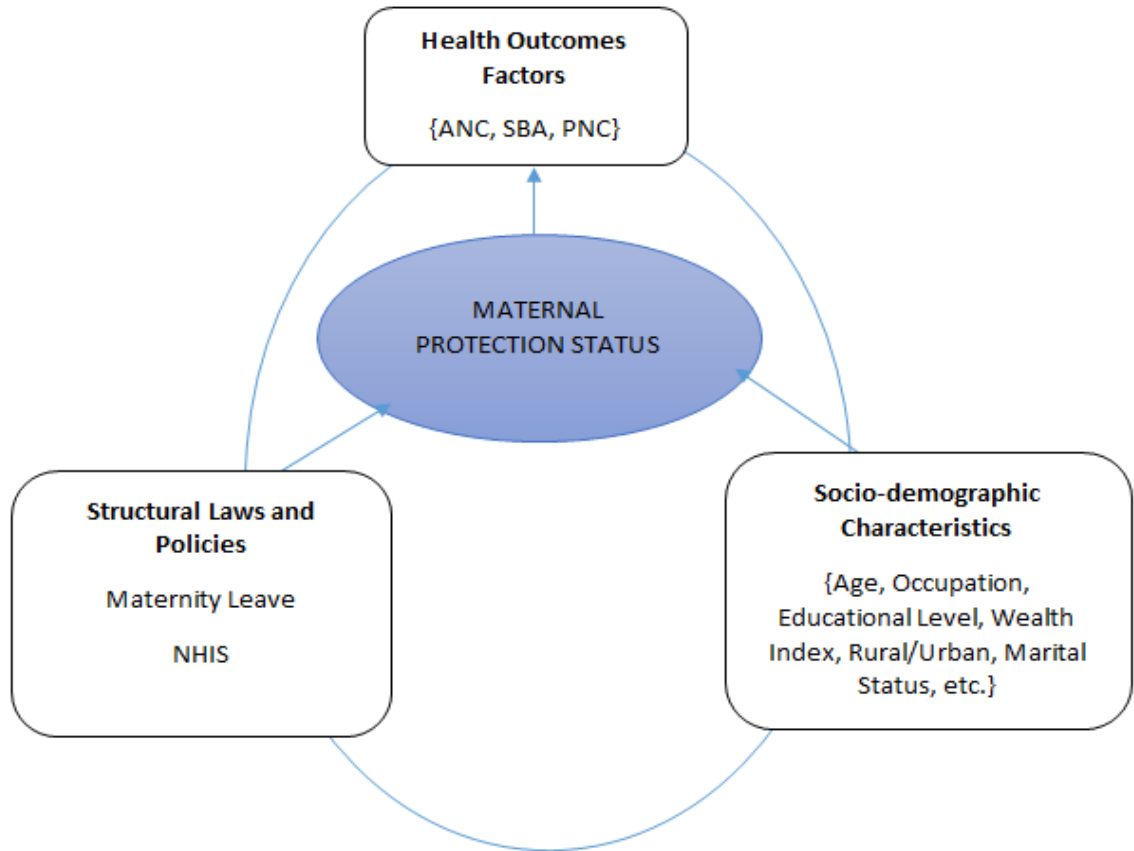
Sociodemographic Factors and Maternity Protection

The sociodemographic factors include a woman's age, occupation, marital status, wealth index, and residence. These factors shape her eligibility for maternity protection and her ability to access maternity leave, contributing to disparities in maternal protection and health outcomes.

Structural Laws and Policies

Structural laws and policies, including maternity leave and the National Health Insurance Scheme (NHIS)/insurance coverage, play a crucial role in determining a woman's eligibility for maternity protection and her ability to access healthcare services. Maternity leave provides income security during pregnancy and postpartum, while NHIS/insurance coverage ensures access to quality healthcare services.

In summary, this conceptual framework emphasizes the significance of maternity leave as a key variable within maternal protection, its influence on women's health outcomes, and the role of sociodemographic factors and structural laws and policies in shaping eligibility and access. Maternity leave acts as a central connector within this framework, representing both an outcome of sociodemographic influences and structural policies and an exposure variable affecting health outcomes.



SOURCE: *Author's Construct, 2023*

Figure 1: An adopted and modified conceptual framework based on the ILO Convention (No. 183) on maternal protection.

1.4 Research Questions

1. What are the socio-demographic and economic characteristics of women in their reproductive age in Ghana?
2. What is the maternity protection status of women in their reproductive age in Ghana?
3. What are the factors associated with maternity protection status of women in Ghana?

1.5 Research Objective

To investigate the maternity protection status of women in Ghana and its associated factors

1.6 Specific Objectives

1. To describe the socio-economic characteristics of women in their reproductive age
Ghana
2. To examine the maternity protection status of women in their reproductive age in
Ghana
3. To investigate the factors that is associated with maternity protection status of
women in their reproductive age in Ghana

1.7 Profile of the Study Area

1.7.1 Geography

The Republic of Ghana is centrally located on the West African coast. It is bounded on three sides by French-speaking countries: Togo on the east, Côte d'Ivoire on the west, and Burkina Faso on the north and northwest. It covers a total area of 238,537 square kilometers. The Gulf of Guinea borders the 560-kilometer-long coastline to the south. Ghana is a lowland country with a series of highlands on its eastern border. Mount Afadjato, located in the mountains of Akuapem-Togo, has the highest elevation at 884 meters above sea level. Ghana's ecological zones are as follows: the low, sandy coastal lowlands; the middle and western regions; and the northern savannah. Ghana has a tropical climate with variable temperatures and precipitation (GSS, 2014).

1.7.2 Demographic Profile

Censuses, surveys, and administrative statistics are some of the sources of demographic data on Ghanaians. Population censuses provide more precise demographic data than other sources. The Population and Housing Census (PHC) of 2000 tallied 18.9 million people, whereas the PHC of 2010 counted 24.7 million. The average yearly growth rate between 2000 and 2010 was 2.5 percent. The relative growth rates from 1960 to 1970, 1970 to 1984, 1984 to 2000, and 2000 to 2010 were 2.4%, 2.6%, 2.7%, and 25%, respectively. Censuses of the population and homes are normally conducted every 10 years and require a significant amount of resources to carry out (GSS, 2014).



Figure 2: Map of the study area - Ghana

1.7.2 History

Ghana achieved independence from British colonial rule on March 6, 1957. On July 1, 1960, it became a republic and joined the British Commonwealth of Nations, with Accra serving as the nation's political and administrative center. Ghana's multi-party system elects a four-year executive president who can serve a maximum of two terms. Ghana boasts an

independent judicial system, a vibrant media, and a parliament that is elected every four years (GSS, 2014).

1.7.3 Economy

The Ghanaian economic structure has not changed significantly in recent years. Agriculture, which used to account for the majority of Ghana's economy, has been eclipsed by the service and industrial industries. 41% of people who are economically engaged work in the service sector, while 45% work in agriculture. In Ghana, a sizable proportion of the working population is self-employed or works in the informal economy (GSS, 2014). Ghana's biggest exports include cocoa, gold, and lumber. Non-traditional crops such as cashew nuts, pineapples, bananas, and yams are now being exported. The tourist industry, which is a major driver of economic growth, contributes significantly to the national economy. The industry now earns the third highest amount of foreign currency(GSS, 2014).

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This literature review of the research first investigates the wider notion of maternity protection, then dives into the disparities in maternity leave periods around the world, and then investigates the relationship between paid maternity leave and maternal health outcomes.

2.1 The Concept of Maternity Protection

Maternity protection has evolved into a fundamental human right, underlining its global importance (Sharma & Verma, 2015). The International Labour Organization (ILO), as a global advocate for labor rights, has been instrumental in championing maternity leave as a fundamental right for working women and in setting standards for maternal protection initiatives worldwide through conventions, recommendations, and guidelines (ILO, 2023).

Various countries have made significant strides in aligning their maternity protection policies with internationally accepted standards, encompassing aspects such as maternity leave, workplace accommodations, medical insurance, and breastfeeding support (Addati, Cassirer & Gilchrist, 2014).

However, the realization of this right by women is a critical component of maternity protection. In some countries, such as Vietnam, studies have been conducted to assess women's awareness and perceptions regarding maternity protection. Research findings from Vietnam indicate that maternity protection rights are widely recognized and utilized by

legally employed women, with most perceiving these regulations as advantageous (Nguyen et al., 2022).

On the other hand, it's essential to highlight the significance of protection against pregnancy discrimination in the workplace, as it safeguards women's human rights and job stability (Mogapaesi, 2022). The International Labour Organization's Maternity Protection Convention and Recommendation provide countries with guidance on developing comprehensive maternity protection programs (ILO, 2022). Nevertheless, even when legislation is in place, there may be challenges with enforcement and public awareness, with some women remaining unaware of their rights or facing obstacles in exercising them (Stumbitz et al., 2017).

In Ghana, despite the improvements in national legislative measures regarding paid maternity leave in line with international labour standards, a significant proportion of female workers in the informal sector remain inadequately covered when becoming mothers (Addati, 2015). Additionally, organizations may face difficulties in compliance, leading to ineffective implementation (Sharma & Verma, 2015).

A study conducted in Scotland and Australia that investigated the gender dimensions of female academic careers in university contexts, involving 35 academics, identified tensions between organizational policies such as maternity leave and flexible work and the contemporary demands of academic labor (Huppertz, Sang, & Napier, 2022).

Furthermore, the limitations in many countries' maternity protection laws, such as exclusions for specific worker categories, restricted coverage for self-employed and informally employed women, or insufficient protections for temporary and part-time workers, result in a significant percentage of women not being adequately covered during maternity (Stumbitz

et al., 2018). For example, a review of maternity protection reforms in Chile between 2000 and 2015 highlighted the need for additional policies to ensure access and equity in a country with significant socioeconomic stratification, despite improvements in maternity protection rights (Delgado et al., 2019).

In a policy brief focusing on the maternity protection rights of female domestic workers, Addati and Cheong (2023) underscored the significant disadvantages faced by pregnant domestic workers due to the lack of formal employment contracts and legal protection. These women may encounter dismissals, be compelled to abandon their jobs, or face health risks for themselves and their new-borns (Addati and Cheong, 2023).

2.2 Maternity Leave

International labour standards, as established by the International Labour Organization (ILO), serve as a foundation for maternity protection rights across the globe. These standards are designed to provide a framework that countries can adapt to their unique cultural, legal, and economic contexts (Rys, 2013). They recognize that countries have different cultural backgrounds, legal systems, and levels of economic development.

As a result, the variations in maternity leave periods are a reflection of the diverse approaches and considerations taken by different countries (Addati, Cassirer & Gilchrist, 2014). An illustrative example of this is Sweden, where maternity leave policies are notably generous. New mothers in Sweden are entitled to 480 days of paid leave, with 390 days paid at around 80% of their pay and the remaining 90 days paid at a fixed rate (Juárez et al., 2021).

In Ghana, the Labour Act of 2003 (Act 651) stipulates that "a woman worker, on production of a medical certificate indicating the expected date of her confinement, is entitled to a period of maternity leave of at least twelve (12) weeks in addition to any period of annual leave she is entitled to after her period of confinement" (Konlan et al., 2023).

The United States, on the other hand, relies on the Family and Medical Leave Act (FMLA) to govern maternity leave. Under FMLA, eligible employees are entitled to up to 12 weeks of unpaid leave, which includes both maternity and paternal leave. Paid maternity leave in the U.S. is not mandated at the federal level, but its availability varies by state and employer policy (Niel et al., 2020).

In Vietnam, women who have contributed to the public social insurance fund for at least six months in the twelve months preceding their childbirth are eligible for six months (180 days) of paid maternity leave funded by social insurance. This policy is complemented by other benefits, including paid breastfeeding breaks, guaranteed job security, and five standard free prenatal check-ups (Nguyen et al., 2022). These examples underscore how maternity leave policies can vary significantly from one country to another, reflecting the unique circumstances and priorities of each nation.

2.4 Effects of maternity leave on maternal health outcomes

Maternity leave plays a pivotal role in facilitating the well-being of new mothers, allowing them the necessary time and support to recover from childbirth, establish breastfeeding, and form strong bonds with their infants, leading to improved health outcomes for both mother and child (Kornfeind and Sipsma, 2018; Navarro-Rosenblatt and Garmendia, 2018). It is

important to note that the World Health Organization (WHO) strongly recommends exclusive breastfeeding for the first six months of a baby's life (WHO, 2021).

Maternity leave policies that encourage and support breastfeeding have a significant impact on breastfeeding rates and duration. Research conducted in Ghana found that working mothers provided with longer maternity leave periods were more likely to extend the duration of exclusive breastfeeding compared to those with shorter maternity leave periods (Dun-dery and Laar, 2016). This is particularly relevant given the common issue of high breastfeeding initiation but low exclusive breastfeeding continuation rates among professional working mothers. It highlights the need for enhanced maternity leave policies and breastfeeding-friendly workplaces.

Similar findings were observed in a study conducted in Brazil, which revealed that not being on maternity leave was strongly associated with the discontinuation of exclusive breastfeeding among employed women in the Federal District of Brazil (Monteiro *et al.*, 2019).

In China, Jia *et al.* conducted an analysis using data from the 2010 Survey on Chinese Women's Social Status, assessing the impact of paid maternity leave on breastfeeding duration from 1988 to 2008. The findings supported the idea that paid maternity leave enhances the ability of employed women to breastfeed, emphasizing the importance of universal paid leave benefits (Jia, Dong and Song, 2018). This suggests that extending the period of statutorily mandated paid maternity leave can improve breastfeeding practices, especially in low- and middle-income countries, offering a promising approach to overcoming barriers to breastfeeding for working women (Chai, Nandi and Heymann, 2018).

In the United States, research showed that paid maternity leave significantly reduces the likelihood of maternal and newborn re-hospitalization and increases the likelihood of engaging in healthy activities and stress management (Jou *et al.*, 2018). These positive effects, coupled with favorable findings from economic impact studies, indicate a compelling evidence-based rationale for the United States to establish a national paid maternity leave policy (Niel *et al.*, 2020).

Furthermore, reforms in maternity leave policies, such as those implemented in Norway, have had a profound impact on post-partum maternal health outcomes. The reform in Norway resulted in improvements across various maternal health indicators, including BMI, blood pressure, pain levels, mental health, and the adoption of health-promoting behaviors such as exercise and not smoking. These positive outcomes were particularly pronounced among first-time and low-resource mothers, as well as women who might not have taken unpaid leave in the absence of the reform (Butikofer, Riise and Skira, 2018).

On the other hand, research suggests that short maternity leaves of 12 weeks or less may increase the likelihood of postpartum depression symptoms. The adjustment to returning to work while managing significant physical and emotional changes during this time can contribute to postpartum depression symptoms (Kornfeind and Sipsma, 2018).

When conducting a country-level comparison, Kwegyir-Afful *et al.* (2018) discovered that the duration of maternity leave is closely linked to birth outcomes, although the relationship was not significant in the case of the 36 nations that specified prenatal maternity leave. This underscores the need for further research to comprehensively assess the relationship between prenatal leave and birth outcomes (Kwegyir-Afful *et al.*, 2018).

2.5 Determinants of Maternity Protection Status of Women in Their Reproductive

Age

The maternity protection status of women in their reproductive years is impacted by a range of circumstances, including socio-demographic characteristics, economic conditions, and healthcare-related issues. Comprehending these factors is essential for advancing mother and child health and guaranteeing that women obtain sufficient assistance throughout the prenatal and birthing processes. In the following discussion, we examine many crucial factors that influence the status of maternity protection, drawing from pertinent scholarly sources.

Younger women, namely teens, often face an elevated vulnerability to insufficient pregnancy protection as a consequence of their restricted access to resources and knowledge. In addition, it is worth noting that women who have given birth several times may have difficulties in obtaining adequate maternity protection. This is due to the fact that they may already have numerous caregiving obligations, as highlighted by Gage (2013) and Neal et al. (2015).

The educational attainment of individuals has a significant influence on their eligibility for maternity protection. Research suggests that women who have attained lesser levels of education may possess a restricted understanding of maternal health, leading to decreased use of prenatal care services and reduced likelihood of taking maternity leave (Addai, 2000; Furuta & Salway, 2006).

The economic status of an individual or a country refers to their financial condition and overall well-being in terms of income, wealth, and

Socioeconomic variables, such as individuals' income and job position, play a crucial role in determining outcomes. Women belonging to lower-income families or working in the informal sector may encounter financial obstacles when attempting to avail themselves of maternity protection services (Ruhm, 2000; Bonfrer et al., 2018).

The existence of health insurance has the potential to have a beneficial effect on the status of maternity protection. Research studies have shown that there is a positive correlation between women possessing health insurance coverage and their increased likelihood of using crucial maternal health services, as well as receiving financial assistance throughout the periods of pregnancy and delivery (Goudge et al., 2009; Bintabara et al., 2018).

The accessibility of healthcare facilities in terms of their geographic location is a crucial factor in determining access to healthcare services. Limited access to adequate maternity care, including prenatal and postnatal treatments, is a prevalent issue faced by women living in rural or remote locations (Gabrysch & Campbell, 2009; Kyei-Nimakoh et al., 2017).

The acquisition of knowledge pertaining to maternal health and the rights associated with maternity protection may significantly impact women's choices to pursue healthcare services and avail them of maternity leave. The implementation of education and awareness campaigns has the potential to augment knowledge and empower women, enabling them to demand their rights pertaining to maternity protection (Babalola et al., 2015; Yaya et al., 2017).

The maternity protection status may be influenced by cultural ideas, customs, and social support networks. The impact of cultural traditions on access to maternal health care and maternity leave has been examined by Koblinsky et al. (2016) and Biza et al. (2017).

The topic of gender equality and empowerment is a significant area of study and discourse in academic circles.

Gender dynamics and the empowerment of women are crucial factors. The existence of disparities in decision-making authority and autonomy may have an impact on women's capacity to avail themselves of maternity protection services and exercise their entitlements (Sen, 2001; Singh et al., 2012).

The analysis of policy and legal frameworks is a crucial aspect of academic inquiry. It involves examining the many policies and legal structures that govern a certain domain or issue. This examination allows for a comprehensive understanding of the regulatory

The presence and implementation of policies and legislation pertaining to maternity protection are crucial factors. The implementation of robust legislative frameworks that include provisions for maternity leave, workplace accommodations, and access to healthcare services has been shown to have a substantial positive impact on the overall status of maternity protection (ILO, 2019; Chatterjee et al., 2020).

The implementation of community-based initiatives and the establishment of support networks have the potential to provide excellent outcomes in the realm of maternal protection. According to previous studies conducted by Manandhar et al. (2004) and Raj et al. (2010), interventions that provide information, enhance service accessibility, and encourage women's health-seeking behavior have shown effectiveness.

In summary, the status of maternity protection among women in their reproductive age is shaped by a complex interaction of several circumstances. The variables under consideration involve several dimensions, including human characteristics, socioeconomic factors, cultural influences, and policy-related elements. Comprehending these determinants is crucial in order to develop focused treatments and policies aimed at enhancing maternity protection and maternal health outcomes.

2.6 Summary of literature review

Maternity protection is essential to promoting gender equality at work and advancing decent work for women and ensuring positive health outcomes (Addati and Cheong, 2023). Maintenance of breastfeeding for the optimal duration has proved difficult for working mothers because it interferes with wage employment (Jia, Dong and Song, 2018). The statutory maternity leave for new mothers in Ghana is 12 weeks. This is inadequate because women combine the care of their babies with the demands of other members of the family (Konlan *et al.*, 2023). In Ghana where majority of women are economically engaged in the informal sector, most women do not enjoy the full benefits of policy-regulated maternity leave (Stumbitz *et al.*, 2018). It is important that the maternity protection policies are reformed to cater to the various socio-economic strata of the society (Lewis *et al.*, 2014)

CHAPTER THREE

METHODOLOGY

3.1 Research methods and design

An analytical cross-sectional study was conducted using secondary data from the Ghana Demographic and Health Survey (2014). The study integrated a community survey, employing a cross-sectional design to provide a one-time assessment of the factors associated with this endeavor. In the 2014 GDHS, three distinct questionnaires were employed: the Household Questionnaire, the Woman's Questionnaire, and the Man's Questionnaire. These surveys followed the standard format of the Demographic and Health Survey (DHS).

3.2 Study population

The data set employed by this study includes women aged between the ages of 15 and 49, as well as children under the age of five who regularly resided in the selected homes and slept there the night before the survey. However the data was further cleaned to suit the objective of the study. This process resulted in a sample size of 1598. See sampling technique for the general procedure.

3.3 Sampling Technique

In the 2014 GDHS, a two-stage sampling design was used. At the first stage, groups of the specified enumeration regions were selected (EAs). Overall, 427 clusters were selected, with 216 located in urban regions and 211 in rural ones. The next stage was systematically sampling households. Each of the approved EAs underwent a residential listing operation

from January to March 2014. (GDHS, 2014). 13,784 people participated in the 2014 GDHS as a whole (GSS, 2014).

The study population for the women's dataset includes women aged between the ages of 20 and 49, as well as children under the age of five who regularly resided in the selected homes and slept there the night before the survey. However the data was further cleaned to suit the objective of the study. The variables reviewed included age, birth index and occupational status. With the categorized age groups in the dataset, the study excluded women below within the 15-19 age bracket in order to include only women in the working age groups (20-49). The study also excluded women within the informal sector since maternity protection in Ghana currently covers only women in the formal sector. Finally the study included data on the last birth in terms of birth index. This resulted in a sample size of 1598.

3.4 Pretesting of the Ghana Demographic and Health Survey

Ten women and five men participated in the pretest training and field testing of the GDHS survey technique and instruments over a three-week period, from June 9 to June 28, 2014. The majority of respondents had previously participated in GDHS surveys. Six trainers chosen by the GSS led the training under the guidance of the International Classification of Functioning, Disability, and Health (ICF) International. The participants actively debated the questions and provided suggestions for how to make each version better. Field exercises were done in both urban and rural regions over the period of four days. Five teams of health professionals and interviewers were assembled (two female interviewers, one male interviewer, and one health technician). During the pretest field practice, questions were asked in English, Akan, Ewe, and Ga to a total of 88 families, 77 women, and 34 men.

Following the field practice, the pretest field staff was debriefed, and revisions to the questionnaires were made in light of the lessons discovered. 2014 (GSS, 2014).

3.5 Data collection techniques and tools

The 2014 Ghana Demographic and Health Survey (GDHS) is the sixth in a series of Demographic and Health Surveys performed in Ghana, following surveys carried out in 1988, 1993, 1998, 2003, and 2008. The 2014 GDHS's primary goal was to gather reliable, up-to-date information on nutrition, family planning, infant and child mortality, fertility, and maternal and child health.

The main data source employed in this research was the 2014 Ghana Demographic and Health Survey (GDHS). In order to protect the integrity and pertinence of the dataset, a comprehensive data cleansing procedure was implemented. The first step was obtaining of the entire data set, which encompassed a diverse collection of factors. In order to enhance the study emphasis on mother and child health as well as maternity protection, characteristics that were not directly relevant to these particular areas were carefully excluded. The dataset underwent further refinement via the application of certain criteria, resulting in the selection of a particular sample. This sample consisted only of women who had undergone the process of delivery and had supplied detailed information about their most recent birthing experience. Furthermore, the selected sample was limited to women falling within the age range of 20 to 49 years. In the present dataset that has been processed, a significant variable of interest was developed to measure the extent of maternal protection. The study distinguished between women employed in the public sector who reported availing paid

maternity leave and those who did not, while also identifying women working in the informal sector. In order to carry out the data processing and subsequent analysis, the researchers used STATA version 17.0 software. This program allowed the investigation of the maternity protection status among women in Ghana, as well as the evaluation of the influence of different socio-demographic characteristics on this status.

3.6 Study Variable

The study variables are methodically grouped and explained in the table, helping us understand their functions in the research. This framework focuses on the dependent variable, "Maternity Protection Status," for the research. It comprises formal sector workers who have maternity protection status and therefore take paid leave, as well as those who do not have maternal protection status and consequently take unpaid or no leave. This variable is important because it exposes research participants' maternal protective behaviors and experiences.

Other demographic factors, such as age, region, highest educational level, religion, ethnicity, and household head sex, are independent variables. These characteristics help contextualize the research population and determine how they affect maternity protection status. This table provides a structured foundation for the research by distinguishing between the dependent and independent variables, allowing for the exploration of relationships and patterns in the dataset and a better understanding of formal sector maternity protection.

Table 3.1 Variable Operationalized Table

Variable	Type	Form	Dependent/ Independent	Definition
Age in 5-year groups	Categorical	Ordinal	Independent	Participant's age group in 5-year intervals.
Region	Categorical	Nominal	Independent	Geographic region where the participant resides.
Highest educational level	Categorical	Ordinal	Independent	The highest level of education achieved by the participant.
Religion	Categorical	Nominal	Independent	The participant's religious affiliation.
Ethnicity	Categorical	Nominal	Independent	The participant's ethnic background.
Sex of household head	Categorical	Nominal	Independent	Gender of the head of the participant's household.
Type of Occupation	Categorical	Nominal	Independent	Whether the participant's occupation is informal or formal.
Wealth Index	Categorical	Ordinal	Independent	Participant's wealth status categorized as middle, poorer, or richer.
Type of place of residence	Categorical	Nominal	Independent	Whether the participant resides in a rural or urban area.
Currently pregnant	Categorical	Nominal	Dependent	Indicates whether the participant is currently pregnant.
Currently Breastfeeding	Categorical	Nominal	Dependent	Indicates whether the participant is currently breastfeeding.
Covered by Health Insurance	Categorical	Nominal	Dependent	Indicates whether the participant has health insurance coverage.
Knowledge of ovulatory cycle	Categorical	Nominal	Dependent	Participant's knowledge of the ovulatory cycle.

Source: *Author's Construct (2023)*

3.7 Data Handling

The data was cleaned before being arranged and made clear. Data handling was under the primary investigator's control. Data accuracy and completeness was evaluated. To preserve secrecy, all datasets was given to the investigator through email and an external disk with data protection. The data will kept for a period of five years until the studied is published.

3.8 Data analysis

For the analysis of this data, STATA version 17.0, a statistical analysis program, was employed. The characteristics of the study participants were summarized in tables and graphs using descriptive statistical analysis. Frequency distributions and percentages were utilized to provide an overview of the results. To evaluate the degree of connection between the variables, chi-square analysis was conducted.

Moreover, to identify the predictors of maternal protection status and maternal health outcomes, both bivariate and multivariate logistic regression analyses were performed. Odds ratios (ORs) and their 95% confidence intervals (CI) were calculated and presented, shedding light on the associations between various factors and maternity protection status. A p-value of 0.05 was chosen as the cutoff for statistical significance.

3.9 Ethical considerations

The foundation of ethics is a set of rational rules of right and wrong that outline what people need to do. These standards are typically expressed in terms of rights, obligations, and benefits to society, fairness, or virtues. The Ensign College of Public Health's Ethical Review

Committee granted approval for the study. Finally, the study's data were utilized strictly for the study's stated objective.

CHAPTER FOUR

DATA ANALYSIS AND RESULTS

4.0 Introduction

This chapter presented the results and discussions of the responses received from the respondents. It provided presentations on the objectives and offered responses to the research questions of the study. The results were presented in tables and charts with a particular focus on the socio-demographic characteristics of the respondents, health outcomes, and maternity protection status among working women in the reproductive age group (20-49).

4.1 Socio-Demographic and Economic Information of Study Participants

Table 1 provides a comprehensive overview of the socio-demographic and economic information of the study participants, offering valuable insights into the characteristics of the 1,598 individuals included in this research.

The participants' age distribution is categorized into five-year groups. The majority of participants fall within the 30-34 years age group, constituting 25.78% of the total, followed by the 25-29 age group at 25.66%. The 45-49 age group represents the smallest percentage at 2.57%.

Concerning marital status, the majority of participants are married (67.77%), with 17.65% living with a partner. A smaller percentage is never in union (6.57%), and 8.01% are widowed, divorced, or separated. The data shows that the majority of households have a male as the head (70.46%), while female-headed households account for 29.54% of the total.

The study participants come from various regions. Greater Accra, Ashanti, and Eastern regions are the most represented, each accounting for around 12-13% of the total. In contrast, the Upper West region has the fewest participants, making up only 5.38% of the sample. The data highlights that the majority of participants reside in urban areas (58.95%), with 41.05% residing in rural regions.

The educational background of the participants varies, with 52.38% having completed secondary education, followed by those with primary education (19.46%). About 7.32% of participants have higher education degrees, while 20.84% have no formal education.

In terms of religion, a significant proportion of the participants identify as Christians (76.28%), while 19.59% are Muslims. There is also a smaller percentage of participants who follow traditional or spiritualist beliefs (1.63%), and some claim no religious affiliation (2.50%).

The study represents a diverse ethnic composition. The Akan ethnic group is the most prominent, constituting 47.31% of the participants. Other significant ethnic groups include the Mole-Dagbani (22.40%), Ewe (12.89%), and Ga/Dangme (6.07%).

The participants' economic status is categorized into wealth index groups. The majority are in the "Richer" category (25.03%), while the "Poorest" category represents 14.27% of the participants. Concerning pregnancy status, 90.18% of participants are not currently pregnant, while 9.82% confirm that they are expecting.

Participants' knowledge of the ovulatory cycle varies. The majority know that ovulation occurs "During Her Period" (35.23%), "Middle of the Cycle" (38.61%), or "After Period

Ended" (9.32%). There is also a percentage who either "Don't Know" (6.95%) or believe ovulation can happen "At Any Time" (6.32%).

The data indicates that the majority of participants (71.28%) are covered by health insurance, while 28.72% are not covered. Occupational status categories show that a significant number of participants are engaged in sales-related jobs (63.09%), followed by "Skilled Manual" workers (23.41%). "Professional/Tech/Managerial" roles account for 9.04% of participants. Agricultural employees and clerical workers have the smallest representation, at 1.26% and 0.94%, respectively.

Table 1, sourced from the GDHS (2014), serves as a valuable foundation for understanding the socio-demographic and economic characteristics of the study's 1,598 participants. These insights are crucial for contextualizing the research and its implications (See Table 4.1).

Table 4. 1: Socio-Demographic and Economic Factors among Respondents

Variable	N=1,598	%
<i>Age in 5-Year Groups</i>		
20-24	214	13.39
25-29	410	25.66
30-34	412	25.78
35-39	356	22.28
40-44	165	10.33
45-49	41	2.57
<i>Sex of Household Head</i>		
Male	1,126	70.46
Female	472	29.54
<i>Region</i>		
Western	170	10.64
Central	195	12.20
Greater Accra	200	12.52
Volta	131	8.20
Eastern	175	10.95
Ashanti	201	12.58
Brong Ahafo	173	10.83
Northern	105	6.57
Upper East	162	10.14

Upper West	86	5.38
<i>Type of Place of Residence</i>		
Urban	942	58.95
Rural	656	41.05
<i>Highest Educational Level</i>		
No Education	333	20.84
Primary	311	19.46
Secondary	837	52.38
Higher	117	7.32
<i>Religion</i>		
Christian	1,219	76.28
Islam	313	19.59
Traditional/Spiritualist	26	1.63
No religion	40	2.50
<i>Ethnicity</i>		
Akan	756	47.31
Ga/Dangme	97	6.07
Ewe	206	12.89
Guan	33	2.07
Mole-Dagbani	358	22.40
Grusi	73	4.57
Gurma	35	2.19
Mande	18	1.13
Other	22	1.38
<i>Wealth Index</i>		
Poorest	228	14.27
Poorer	266	16.65
Middle	375	23.47
Richer	400	25.03
Richest	329	20.59
<i>Currently Pregnant</i>		
No or Unsure	1,441	90.18
Yes	157	9.82
<i>Knowledge of Ovulatory Cycle</i>		
During Her Period	57	3.57
After Period Ended	563	35.23
Middle of the Cycle	617	38.61
Before Period Begins	149	9.32
At Any Time	101	6.32
Don't Know	111	6.95
<i>Covered by Health Insurance</i>		
No	459	28.72
Yes	1,139	71.28
<i>Occupational status</i>		
Professional/Tech/Managerial	144	9.04
Clerical	15	0.94

Sales	1,005	63.09
Agricultural - Employee	20	1.26
Services	36	2.26
Skilled Manual	373	23.41
<i>Total</i>	<i>1,598</i>	<i>100.00</i>

Source: GDHS (2014)

In Figure 3, the marital status of the respondents was examined, and the percentages were analyzed as follows: The "Divorced" category, representing 13% of the respondents, consisted of individuals who had undergone the formal dissolution of their marriages after previously being married. Approximately 13% of the participants were engaged in domestic partnerships characterized by shared residence with a significant other, without the formal bond of marriage. The largest proportion of respondents, accounting for 45% of the participants, fell into the "Married" category. These individuals were characterized by their membership in officially acknowledged marital partnerships. The "Non-Union" category, comprising 32% of the surveyed population, included individuals who had never entered into marriage or domestic partnership arrangements. This category indicated that they were either unmarried or not currently engaged in a committed relationship. A total of 3.9% of the participants reported that they were no longer living together or had split from their former spouses or partners, signifying the termination of their previous cohabitation arrangements. The survey findings revealed that approximately 2.9% of the respondents had been widowed, leading to their current status as single individuals due to the unfortunate death of their spouses.

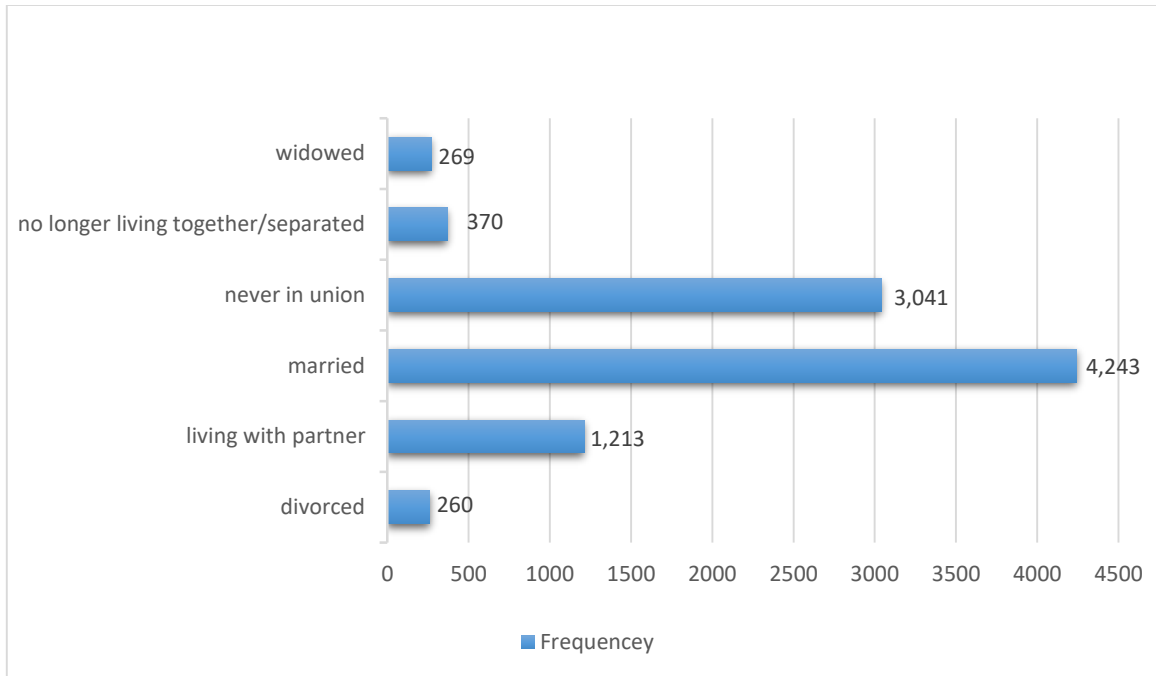


Fig. 3: Marital Status of Study Participants

4.2 Maternity protection Status among Reproductive (15-49) Women in Ghana

Figure 4 illustrates the prevalence of maternity protection status among working mothers in Ghana, with a specific focus on whether they received paid maternity leave for their last birth.

The study reveals a striking pattern: a significant majority of working mothers, representing 90.86% of the total sample (1,452 individuals), did not have access to paid maternity leave for their most recent birth. This means that approximately nine out of ten (90.86%) working mothers in Ghana's formal sector lack the essential maternity protection status they need during the critical periods of pregnancy, childbirth, and early motherhood (1,452 out of 1,598).

Conversely, a smaller but noteworthy portion, accounting for 9.14% of the total sample (146 individuals), did receive paid maternity leave. These findings shed light on the existing disparities in maternity protection for working mothers in Ghana, underscoring the importance of addressing this gap to ensure the well-being of both mothers and their children.

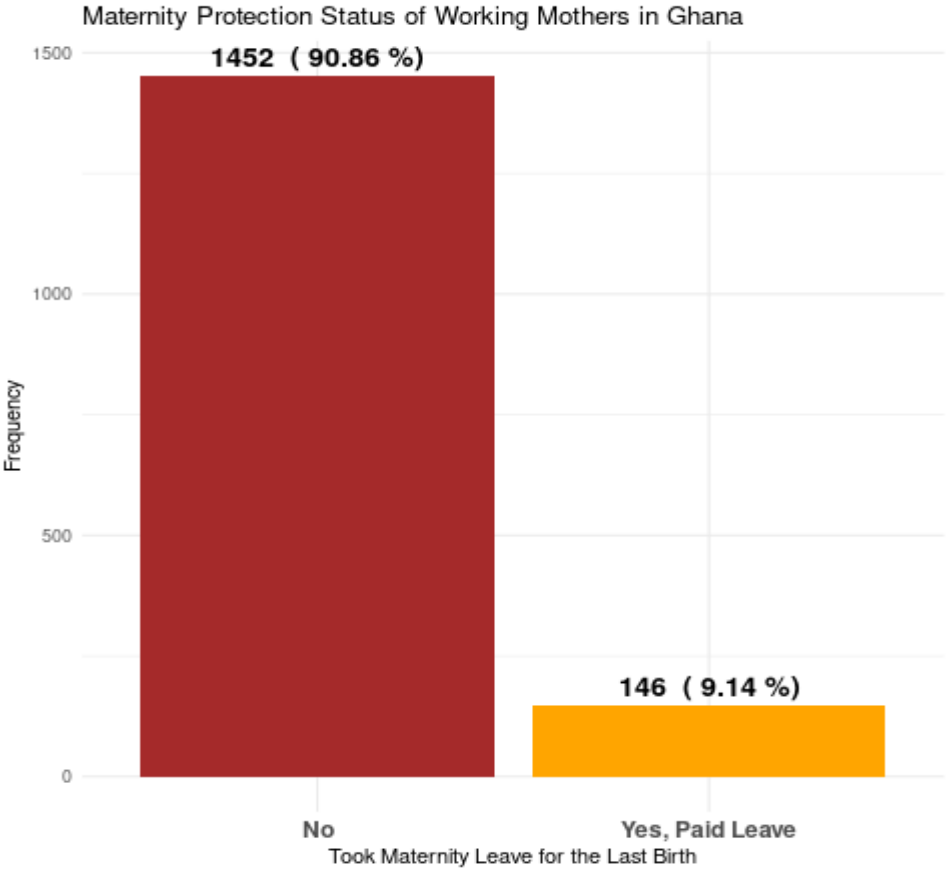


Fig. 4: prevalence of maternity protection status among study population

4.2 Socio-demographic factors associated with maternity protection status of women in their reproductive age in Ghana (Bivariate Analysis)

Table 4.2 presents the results of a bivariate analysis examining the association between socio-demographic factors and Maternity Protection Status (MPS), including p-values signifying the statistical significance of these associations. The study assessed how various socio-demographic variables relate to the likelihood of having Maternity Protection.

Age appears to be significantly associated with Maternity Protection. Among women aged 20-24, only 3.42% have Maternity Protection, whereas 36.30% of those aged 25-29 have Maternity Protection. The likelihood of having Maternity Protection decreases as age increases. The region of residence does not seem to have a significant impact on Maternity Protection status, with p-value=0.5. The distribution of Maternity Protection across different regions remains relatively consistent.

Education has a notable impact on Maternity Protection. Those with no education (1.37%) or only primary education (2.74%) have limited Maternity Protection compared to those with secondary education (30.82%) and higher education (65.07%).

Religion also shows a significant association. Christian women (86.30%) are more likely to have Maternity Protection than Muslim women (13.70%). No significant Maternity Protection is reported among women who identify with other religions (0%) or traditional/spiritualist beliefs (0%). Ethnicity does not appear to have a significant impact on Maternity Protection, with a p-value of 0.062. The distribution of Maternity Protection among various ethnic groups remains fairly consistent.

The sex of the household head does not significantly influence Maternity Protection status, with 72.60% of households headed by females and 27.40% by males having Maternity Protection. Marital status demonstrates a significant association with Maternity Protection. Women who are married (82.19%) are more likely to have Maternity Protection compared to those never in union (6.85%) or living with a partner (6.85%).

Wealth has a substantial impact on Maternity Protection. Women in the "Richest" category (63.01%) have a higher likelihood of having Maternity Protection than those in the "Poorest" (2.74%) or "Poorer" (1.37%) categories. The place of residence significantly affects Maternity Protection status, with urban residents (21.23%) having higher Maternity Protection compared to rural residents (78.77%).

Pregnancy status is not significantly associated with Maternity Protection, as both women who are not pregnant (88.36%) and those who are pregnant (11.64%) have some level of Maternity Protection. Occupation demonstrates a significant impact on Maternity Protection. Women in professional/technical/managerial roles (66.44%) have a much higher likelihood of having Maternity Protection compared to those in other occupational categories.

Health insurance is significantly associated with Maternity Protection. Women with health insurance (87.67%) are more likely to have Maternity Protection than those without insurance (12.33%). Knowledge of the ovulatory cycle is significantly associated with Maternity Protection. Women who are aware that ovulation occurs "During Her Period" (3.42%) or "After Period Ended" (26.03%) have lower Maternity Protection compared to those who understand the cycle "Middle of the Cycle" (58.90%) or "Before Period Begins" (7.53%).

Table 4. 2: Association among socio-demographic information and PPD (Bivariate Analysis)

Variables	Maternity Protection Status		p-value ²
	NO, N=1,452 (90.86%) ¹	YES, N = 146 (9.14%) ¹	
Age in 5-year groups			<0.001
20-24	209 (14.39%)	5 (3.42%)	
25-29	357 (24.59%)	53 (36.30%)	
30-34	368 (25.34%)	44 (30.14%)	
35-39	320 (22.04%)	36 (24.66%)	
40-44	158 (10.88%)	7 (4.79%)	
45-49	40 (2.75%)	1 (0.68%)	
Region			0.5
Western	158 (10.88%)	12 (8.22%)	
Central	180 (12.40%)	15 (10.27%)	
Greater Accra	168 (11.57%)	32 (21.92%)	
Volta	123 (9%)	8 (5.48%)	
Eastern	160 (11.02%)	15 (10.27%)	
Ashanti	184 (12.67%)	17 (11.64%)	
Brong ahafo	156 (10.74%)	17 (11.64%)	
Northern	93 (6.40%)	12 (8.22%)	
Upper East	151 (10.40%)	11 (7.53%)	
Upper West	79 (5.44%)	7 (4.79%)	
Highest educational level			<0.001
No education	332 (22.80%)	2 (1.37%)	
Primary	307 (21.14%)	4 (2.74%)	
Secondary	792 (54.55%)	45 (30.82%)	
Higher	22 (1.52%)	95 (65.07%)	
Religion			0.006
Christian	1,093 (75.28%)	126 (86.30%)	
Islam	293 (20.18%)	20 (13.70%)	
Other	26 (1.79%)	0 (0%)	
traditional/spiritualist	40 (2.75%)	0 (0%)	
Ethnicity			0.062
Akan	677 (46.63%)	79 (54.11%)	
Ga/Dangme	88 (6.06%)	9 (6.16%)	
Ewe	190 (13.09%)	16 (10.96%)	
Guan	30 (2.07%)	3 (2.05%)	
Mole-Dagbani	328 (22.59%)	30 (20.55%)	
Grusi	66 (4.55%)	7 (4.79%)	
Gurma	35 (2.41%)	0(0%)	
Mande	16 (1.10%)	2 (1.37%)	
Other	22 (1.52%)	0(0%)	
Sex of household head			0.634
Female	1020 (70.25%)	106 (72.60%)	

Variables	Maternity Protection Status		p-value ²
	NO, N=1,452 (90.86%) ¹	YES, N = 146 (9.14%) ¹	
<i>Male</i>	432 (29.75%)	40 (27.40%)	
<i>Current marital status</i>			<0.001
<i>Never in union</i>	95 (6.54%)	10 (6.85%)	
<i>Married</i>	963 (66.32%)	120 (82.19%)	
<i>Living with partner</i>	272 (18.73%)	10 (6.85%)	
<i>Widowed/divorced/separated</i>	122 (8.40%)	6 (4.11%)	
<i>Wealth Index</i>			<0.001
<i>Poorest</i>	224 (15.43%)	4 (2.74%)	
<i>Poorer</i>	246 (18.18%)	2 (1.37%)	
<i>Middle</i>	359 (24.72%)	16 (10.96%)	
<i>Richer</i>	368 (25.34%)	32 (21.92%)	
<i>Richest</i>	237 (16.32%)	92 (63.01%)	
<i>Type of place of residence</i>			<0.001
<i>Rural</i>	827 (56.96%)	115 (78.77%)	
<i>Urban</i>	625 (43.04%)	31 (21.23%)	
<i>Currently pregnant</i>			0.465
<i>no or unsure</i>	1,312 (90.36%)	129 (88.36%)	
<i>Yes</i>	140 (9.64%)	17 (11.64%)	
<i>Respondent's Occupation</i>			<0.001
Professional/Tech/Managerial	47 (3.25%)	97 (66.44%)	
Clerical	2 (0.14%)	13 (8.90%)	
Sales	977 (67.52%)	28 (19.18%)	
Agricultural - Employee	20 (1.38%)	0 (0.0%)	
Services	33 (2.28%)	3 (2.05%)	
Skilled Manual	368 (25.43%)	5 (3.42%)	
<i>Covered by Health Insurance</i>			<0.001
<i>No</i>	441 (30.37%)	18 (12.33%)	
<i>Yes</i>	1011 (69.63%)	128 (87.67%)	
<i>Knowledge of ovulatory cycle</i>			<0.001
during her period	52 (3.58%)	5 (3.42%)	
after period ended	525 (36.16%)	38 (26.03%)	
middle of the cycle	531 (36.57%)	86 (58.90%)	
before period begins	138 (9.50%)	11 (7.53%)	
at any time	99 (6.82%)	2 (1.37%)	
don't know	107 (7.37%)	4 (2.74%)	

MPS - maternity protection statistical significance at p-value= 0.05

Source: GDHS (2014)

4.4 Determinants of maternity protection status of women in their reproductive age in Ghana

Table 4.3 presents the results of the multivariate analysis examining the factors associated with maternity protection status among women in their reproductive age in Ghana.

Age: When comparing different age groups, it was found that women aged 35-39 had an adjusted odds ratio (aOR) of 3.28 (95% CI: 0.91-11.83), suggesting a relatively higher likelihood of maternity protection status compared to the reference group (20-24 years). However, the p-value of 0.069 indicates that this association is not statistically significant. Age groups 25-29, 30-34, 40-44, and 45-49 did not show a statistically significant association with maternity protection status.

Current Marital Status: Women who were married had an aOR of 0.66 (95% CI: 0.22-1.99), indicating a lower likelihood of maternity protection status compared to women who had never been in union (never in union is the reference category). However, this association was not statistically significant (p-value = 0.459). Women living with a partner and widowed, divorced, or separated women also did not exhibit a statistically significant relationship with maternity protection status.

Type of Place of Residence: Women residing in rural areas had an aOR of 1.93 (95% CI: 0.90-4.14), suggesting a higher likelihood of maternity protection status when compared to urban areas. However, the association was not statistically significant, with a p-value of 0.091.

Highest Educational Level: Among women with no education, primary education, and secondary education, there were no statistically significant associations with maternity protection status. However, women with a higher level of education had a significantly higher likelihood of maternity protection status (aOR = 47.78, 95% CI: 8.94-255.38, p-value < 0.001).

Religion: Women practicing Islam or traditional/spiritualist beliefs did not show a statistically significant association with maternity protection status compared to Christians, who were used as the reference group.

Wealth Index: Women in the richest wealth index category had a significantly higher likelihood of maternity protection status (aOR = 4.61, 95% CI: 1.05-20.32, p-value = 0.043). However, other wealth index categories, including poorest, poorer, middle, and richer, did not exhibit statistically significant associations.

Knowledge of Ovulatory Cycle: Women with knowledge of the ovulatory cycle at any time did not have a statistically significant relationship with maternity protection status. The other categories, such as during her period, after period ended, middle of the cycle, before period begins, and don't know, also did not show statistically significant associations.

Covered by Health Insurance: Women who were covered by health insurance had an aOR of 1.49 (95% CI: 0.71-3.12) when compared to those not covered. However, this association was not statistically significant, with a p-value of 0.288.

Respondent's Occupation: Women in the clerical profession had an aOR of 4.95 (95% CI: 0.88-27.88), indicating a higher likelihood of maternity protection status, although this association was not statistically significant (p-value = 0.070). Women in sales and services professions exhibited statistically significant associations. Women in sales had a significantly lower likelihood of maternity protection status (aOR = 0.06, 95% CI: 0.03-0.13, p-value < 0.001), while women in services had a significantly higher likelihood (aOR = 0.24, 95% CI: 0.06-1.02, p-value = 0.053). Women in the skilled manual profession also showed a statistically significant association with a lower likelihood of maternity protection status (aOR = 0.03, 95% CI: 0.01-0.10, p-value < 0.001). The constant term represents the baseline odds of maternity protection status when all other variables are held constant. It had an a OR of 0.05 (95% CI: 0.00-0.80, p-value = 0.034).

Table 4. 3: Factors associated with maternity protection status of women in their reproductive age in Ghana (Multivariate Analysis)

Maternity Protection Status	aOR	95% CI		P-value
Age				
20-24	<i>Ref</i>			
25-29	1.933628	.5496229	6.802696	0.304
30-34	1.993861	.5589202	7.112787	0.288
35-39	3.28486	.9124545	11.82558	0.069
40-44	2.096851	.4339064	10.13302	0.357
45-49	4.362628	.4116318	46.23676	0.221
Current Marital Status				
Never in union	<i>Ref</i>			
Married	.6577147	.2167425	1.995864	0.459
living with partner	.9496753	.2618188	3.444684	0.937
Widowed	.7260825	.1486068	3.547589	0.692
Type of place of residence				
Urban	<i>Ref</i>			
Rural	1.930681	.9000114	4.141648	0.091
Highest educational level				
no education	<i>Ref</i>			
Primary	2.133364	.3639595	12.5048	0.401
Secondary	4.02843	.8460206	19.18186	0.080
Higher	47.77862	8.938715	255.3831	0.000
Religion				
Christian	<i>Ref</i>			
Islam	1.327295	.5821297	3.026324	0.501
traditional/spiritualist	1			
no religion	1			
Wealth Index				
Poorest	<i>Ref</i>			
Poorer	.3438422	.041558	2.844878	0.322
Middle	1.476392	.35447	6.149278	0.593
Richer	1.624268	.3823771	6.89959	0.511
Richest	4.613951	1.047436	20.32443	0.043
Knowledge of ovulatory cycle during her period				
after period ended	<i>Ref</i>			
middle of the cycle	.4296715	.0986943	1.870601	0.260
before period begins	.5202567	.1220473	2.217723	0.377
at any time	.2739996	.0480325	1.563021	0.145
	.4220287	.0421297	4.227616	0.463

don't know	.2435142	.0301568	1.966359	0.185
<i>Covered by Health Insurance</i>				
No	Ref			
Yes	1.49121	.7137927	3.11534	0.288
<i>Respondent's Occupation</i>				
Professional/Tech/Managerial	Ref			
Clerical	4.948982	.8783491	27.88461	0.070
Sales	.0646193	.0320991	.1300861	0.000
agricultural – employee	1			
Services	.237852	.0553987	1.021208	0.053
skilled manual	.0348575	.0118877	.1022101	0.000
_cons	.0511963	.0032636	.8031119	0.034

MPS - maternity protection statistical significance at p-value= 0.05

Source: GDHS (2014)

4.8 Chapter summary

In conclusion, the results in this research reveals that socio-demographic and economic information, health outcomes related factors such as general awareness, healthcare, pregnancy and breastfeeding experiences have a some consequential role in the maternity protection status of women in their reproductive age in Ghana. The study discovered that age groups, educational status, religious affiliation, sex of household head, currently pregnant, type of occupation, knowledge of ovulatory cycle, currently breastfeeding, and whether respondent were covered by health insurance was statistically significant determinants of maternity protection status according to 2014 Ghana Demographic Health Survey. The results are discussed in the next chapter.

CHAPTER FIVE

DISCUSSION

5.1 Introduction

In this chapter, key findings revealed by this study are discussed in line with the other literature in order to appreciate research gaps identified by this research.

5.2 Characteristics of study Participants

Notably, the 30-34 age group emerged as the most prominent age cohort, constituting 25.78% of the sample, reflecting the significance of this demographic segment in the study. This finding is consistent with global demographic trends where individuals in their thirties often represent a substantial portion due to various life stage transitions, particularly related to marriage and family formation (UN, 2019).

The marital status of the participants indicates that marriage is a prevalent institution within the sample, with 67.77% of participants reporting that they are married. This aligns with the cultural significance of marriage in many societies, including Ghana (Amo-Adjei, 2015). Furthermore, the presence of individuals living with a partner (17.65%) and those who have never been married (6.57%) highlights the diversity in relationship statuses within the study, reflecting changing social dynamics.

Examining the sex of household heads is also illuminating, with a notable 70.46% of households being led by men. This mirrors broader gender dynamics observed in many societies where male-headed households have historically been more prevalent (Duflo,

2012). The 29.54% of female-headed households underscores the importance of female-led households within the sample.

Understanding regional representation is essential, and the geographic distribution of participants reveals interesting patterns. Greater Accra, Ashanti, and Western regions each contribute more than 10%, likely due to their higher population density and economic activity. In contrast, the underrepresentation of the Northern and Upper West regions (6.57% and 5.38%) may point to disparities in research engagement (Nketiah-Amponsah et al., 2014). The distribution between urban and rural settings (58.95% urban, 41.05% rural) reflects ongoing urbanization trends in developing countries, including Ghana, where economic opportunities drive urban population growth (UN-Habitat, 2018).

Educational diversity within the sample is evident, with over 20.84% of participants having received no formal education. This highlights the importance of educational interventions to address literacy and access to basic education, aligning with national development goals (Government of Ghana, 2015).

Religiously, the dominance of Christianity (76.28%) in the sample is notable, reflecting the religious diversity in Ghana, where Christianity is the predominant religion, while 19.59% of the population follows Islam (Pew Research Center, 2010).

The participants' understanding of the ovulatory cycle, with 38.61% recognizing the middle of the cycle as the most fertile period, carries implications for reproductive health education and family planning programs (Casterline et al., 2000). Moreover, the high percentage of individuals with health insurance (71.28%) indicates relatively broad healthcare access, although potential barriers may persist (Witter et al., 2007).

Occupationally, sales jobs dominate (63.09%), emphasizing the significance of trade and commerce in many countries (World Bank, 2020). The diverse representation of ethnic groups, including Akan, Guan, and Mole-Dagbani, underscores Ghana's rich cultural tapestry (Anarfi, 2001).

Lastly, the wealth index distribution within the sample indicates economic diversity, with middle-class individuals (23.47%) forming the largest group. This reflects the intricate nature of economic disparities within the population (Ravallion, 2001).

5.3 Maternity protection Status among Reproductive (15-49) Women in Ghana

The frequency of working women without paid maternity leave in Ghana matches worldwide trends. The International Labour Organization (ILO) says that many low- and middle-income women lack maternity protection. Ghana is not alone in having insufficient maternity protection for working women (ILO, 2017). Many low- and middle-income nations have this issue.

Ghana's position resembles neighboring nations. Many working moms in Nigeria lack paid maternity leave, raising worries about maternal and child health. This suggests that Ghana is not alone in lacking paid maternity leave (Fawole et al., 2016).

A larger view of gender equality is provided by the WEF Global Gender Gap Index. Maternity protection, including paid leave, is key to this rating. Ghana's 2021 study compares its maternity protection score to others, illuminating its position. Ghana's maternity protection performance may be compared to others using the Global Gender Gap Index (World Economic Forum, 2021).

Comparative South Asian and Latin American studies show maternal protection differences. Some nations have greater paid maternity leave, improving mother and child health. This shows regional differences in maternity protection policy and maternal and child health. Specific Ruhm (2000) and King et al. (2000) investigations may explain geographical variances.

Comprehensive maternity protection plans are common in high-income nations. Comparisons with these countries show the huge maternity protection gaps between low- and high-income nations. This shows that low- to middle-income nations need to enhance their maternity protection measures (Heymann et al., 2011).

5.4 Determinants of maternity protection status of women in their reproductive age in Ghana

Global maternal healthcare trends show greater maternal protection rates for 25–29 and 30–34-year-olds (Bhutta et al., 2010). Lower maternal mortality and better child health are trends for younger parents. Higher education is connected to MPS, confirming research that maternal education is crucial to healthcare access (Bloom et al., 2001). Women with more education may need maternity care.

The research shows that wealth index and marital status greatly affect MPS. Married women get social and economic support, simplifying maternity safety (Addai, 2000). Wealthier individuals have better healthcare, notably maternity protection (Gwatkin et al., 2007).

Mother and child health research emphasizes reproductive health education, particularly MPS and the ovulatory cycle (Casterline et al., 2000). Comprehensive family planning

programs that educate women reproductive health improve mother-child health. Witter et al. (2007) found that health insurance improves access and affordability.

Notably, Muslims had worse maternal protection than Christians. Cultural and religious viewpoints and healthcare consumption may impact results, however the study did not include them. Understanding these gaps and their causes is crucial to finding solutions. This article reveals that education is a key element in maternal protection, with greater education levels increasing access. This supports worldwide studies on education's impact on mother and child health (Mangham-Jefferies et al., 2015; Gage, 2007). The study found that higher-educated women are more likely to access maternity protection, supporting previous research linking maternal education to better health-seeking during pregnancy and childbirth (Alemayehu et al., 2015).

The wealth index also affects maternity protection status, since women in the wealthiest group are more likely to have access. This supports previous study on maternal health differences by income (Van de Poel et al., 2007). Wealth may affect maternal care quality and affordability throughout pregnancy and delivery. In addition, women in clerical and sales professions had greater probabilities of maternity protection, emphasizing the impact of vocational choices in healthcare access, an area of maternal health research that has gotten little attention.

However, marital status, place of residence, religion, ovulatory cycle knowledge, and health insurance status had no significant effects on maternity protection among formal sector working mothers in Ghana. These variables affect maternal healthcare outcomes and access, making them crucial to understanding maternal protection's complicated environment (Glei

et al., 2003; Elo and Drevenstedt, 2002). Despite not being significant in our study, health insurance and ovulatory cycle information are important for family planning and maternal health decision-making. Developing comprehensive maternity protection programs in Ghana requires understanding these non-significant elements.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

In conclusion, this study aimed to achieve the following specific objectives:

Objective 1: Describe the socio-economic characteristics of women in their reproductive age in Ghana

The socio-economic characteristics of working women in their reproductive age were examined, revealing diverse demographic trends. The most prominent age group in the sample was the 30-34 age cohort, representing 25.78% of the participants, consistent with global demographic patterns. Marriage was prevalent among the participants, with 67.77% reporting that they were married. Male-headed households were predominant, comprising 70.46%, but female-headed households (29.54%) were also significant. The study included participants from various regions of Ghana, with Greater Accra, Ashanti, and Western regions contributing more than 10%. The distribution between urban (58.95%) and rural (41.05%) settings reflected urbanization trends. A diverse range of educational backgrounds was observed, with 20.84% of participants having no formal education. The majority of participants were Christians (76.28%), with 19.59% following Islam. Understanding of the ovulatory cycle (38.61%) and the presence of health insurance (71.28%) were also noted. Sales jobs dominated the occupational profile (63.09%), and various ethnic groups were represented. Wealth index distribution showed economic diversity, with middle-class individuals (23.47%) forming the largest group.

Objective 2: Examine the maternity protection status of women in their reproductive age in Ghana

The study found that maternity protection status among formal working reproductive women in Ghana mirrored global trends, with many working women lacking paid maternity leave, which is a concern for maternal and child health. This issue was not unique to Ghana and resembled neighboring countries like Nigeria. The study also considered Ghana's performance in the Global Gender Gap Index, which incorporates maternity protection, and compared it to other countries. Regional differences in maternity protection policies and maternal and child health outcomes were observed. Comparisons with high-income countries emphasized the need for low- to middle-income nations to enhance maternity protection measures.

Objective 3: Investigate the factors associated with maternity protection status of women in their reproductive age in Ghana

Factors associated with maternity protection status were explored. The study found that younger age groups (25-29 and 30-34) had higher maternal protection rates, associated with lower maternal mortality and better child health. Education, wealth index, and marital status significantly affected maternity protection status. Education played a vital role, with higher education levels increasing access to maternity protection. Wealthier individuals and married women were more likely to have access to maternity protection. However, factors like marital status, place of residence, religion, ovulatory cycle knowledge, and health insurance status had no significant effects on maternity protection among formal sector working mothers in Ghana, despite their importance in maternal healthcare outcomes and access.

Generally, the study provides valuable insights into the socio-economic characteristics of women in their reproductive age in Ghana, their maternity protection status, and the factors influencing that status. These findings have implications for maternal and child health and the development of comprehensive maternity protection programs in the country.

6.2 Recommendation

Based on the findings and conclusions of this study regarding the socio-demographic characteristics, maternity protection status, and associated factors among women in their reproductive age in Ghana, several recommendations can be made:

1. *Education and Awareness Campaigns for Vulnerable Groups:* Given the significant influence of educational attainment on maternity protection status, it is essential to implement targeted education and awareness campaigns, particularly for women with lower levels of education. These campaigns should focus on educating women about their maternity protection rights and the importance of maternity leave. Special attention should be given to women with no formal education or only primary education to ensure they are informed and aware of their rights.
2. *Promotion of Gender Sensitivity:* The findings related to the sex of the household head and its impact on maternity protection status emphasize the need for gender-sensitive policies and initiatives. To promote gender equity, there should be programs and campaigns that encourage shared responsibilities within households, reducing the burden on women during pregnancy and the postpartum period. These initiatives should work toward eliminating gender-related disparities in maternity protection.

3. *Advocacy for Maternity Protection Policies:* Given the low utilization rate of maternity leave, there is a critical need for advocacy to promote and strengthen maternity protection policies in Ghana. These policies should prioritize adequate leave duration, job protection, and financial support for pregnant and breastfeeding workers. Stakeholders, including government agencies, employers, and civil society, should work collaboratively to advocate for improved maternity protection policies.
4. *Enhanced Access to Maternity Leave:* To address the concerning issue of a significant portion of women not having access to formal maternity leave benefits, there should be a concerted effort to ensure that maternity protection policies are inclusive of all women, including informal workers. This inclusivity can help bridge the existing gaps in maternity leave coverage and ensure that all women have access to essential maternity benefits.
5. *Tailored Maternity Support Programs:* Given the youthful age distribution, with a substantial proportion falling within the 20-29 age range, there is a need for tailored maternity support programs targeting this age group. These programs should focus on educating young women about their maternity protection rights, the significance of maternity leave, and family planning. By providing information and support to younger women, it can empower them to make informed decisions about pregnancy and maternity.

6. *Regional Maternity Initiatives:* Considering the geographic distribution of respondents across various regions in Ghana, regional maternity protection initiatives should be developed. These initiatives can address region-specific challenges and opportunities related to maternity protection and healthcare access. Tailoring policies and support to the specific needs of each region can lead to more effective outcomes.

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APPENDICES

APPENDIX A: IRB CLREARANCE



OUR REF: ENSIGN/IRB/EL/SN-223
YOUR REF:

April 19, 2023.

INSTITUTIONAL REVIEW BOARD SECRETARIAT

Philip Korbla Lavoe
Ensign Global College
Kpong.

Dear Philip,

ETHICAL CLEARANCE TO UNDERTAKE POSTGRADUATE RESEARCH

At the General Research Proposals Review Meeting of the *INSTITUTIONAL REVIEW BOARD (IRB)* of Ensign Global College held on Wednesday, April 19, 2023, your research proposal entitled "**The Maternity Protection Status of Working Mothers in Ghana**" was considered. The following recommendations and changes are to be effected in order for approval and ethical clearance to collect data for the said research under academic supervision.

State the duration that the data will be kept.

We wish you all the best.

Sincerely,

A handwritten signature in black ink, appearing to read "Patrick Kuma".

Mr. Patrick Kuma
(Registrar/ IRB Administrator)