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HOUSEHOLD COST OF ACCESSING CONTRACEPTIVE SERVICES AMONG WOMEN IN URBAN COMMUNITIES: A CASE STUDY OF PLANNED PARENTHOOD ASSOCIATION OF GHANA CLINICS

BY

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Declaration

By signing this document, I certify that this dissertation is entirely my creation and has never been presented in conjunction with the application for another degree. I further attest that I wrote my submission with the assistance of Dr Richmond Owusu of the Department of Health Policy, Planning and Management, School of Public Health, College of Health Sciences of the University of Ghana, and any assistance I may have gotten in doing so has been properly acknowledged by reference.

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CONTENTS

List of abbreviations

FP	Family planning
GHS	Ghanaian Cedis
NHIS	National Health Insurance scheme
SDP	Service delivery point
PPAG	Planned Parenthood Association of Ghana
WHO	World Health Organization
HIV	Human Immunodeficiency virus
MoH	Ministry of Health
SRHR	Sexual and Reproductive Health and Rights

Definition of operational terms

Contraception	The act of taking measures to prevent pregnancy
Family Planning	The practice of controlling the number of children one has and the intervals between their births particularly through contraception.
Heath Insurance	Health financing protection from out-of-pocket payments at point-of-service use arrangements that involve both pre-payment and risk pooling regardless of whether the source of funding is general taxes, insurance premiums or a mix.
Access	To take up the services

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ABSTRACT

Attempts to increase the number of Family Planning (FP) users have been plagued with several access barriers. Cost is still a major barrier in the health systems in most developing economies. In these countries, healthcare financing is heavily reliant on out-of-pocket payment for certain health services. Ghana's revised National Health Insurance Act, 2012 (Act 852) mandates the Minister of health to include coverage of relevant clinical methods of contraceptive services in the list of NHIS benefits. However, implementation of this policy has not seen much progress, and contraceptive services continue to be paid out-of-pocket in most public and private facilities across the country. The level of direct and indirect cost, in the context of the consumer, has a major influence on their ability to access services.

This study, through a facility-based cross-sectional design used both qualitative and qualitative approaches, explored the household cost of accessing contraceptive services among women in urban communities in Ghana. "Household Perspective" was used to assess the costs incurred by women and their households when accessing contraceptive services at PPAG clinics. This perspective provided valuable insights into the financial burden faced by individuals seeking contraception and helped identify areas where interventions or policy changes may be needed to reduce these costs and improve access to family planning services in urban communities. Direct costs were estimated as medical cost and non-medical cost. Indirect costs were estimated by measuring the reported lost time by clients. Intangible costs were described using a Likert scale to measure the likely effect of accessing contraceptive services on clients in the areas of fear, pain, social relationship, stigmatization /discrimination. According to this study, the average direct cost of contraceptive service is GHS18.4, comprising of GHS 8.5(46.4%) of direct Medical Cost and GHS 9.8% (53.6%) of direct non-medical cost. Also, clients lost an average of 52.13 minutes owing to traveling and waiting time; costing them average of GHS 3.8 of productivity. Most respondents (71.2%) indicated that they consulted their partners before taking a decision to access

contraceptive services. Also, 94% of respondents indicated that their decision to access contraception will not have a negative effect on their relationship. The study found that the direct and indirect costs associated with contraceptive services are relatively high when compared to daily minimum wage and the prevailing economic conditions. These findings align with the results of recent studies on the same topic.

This information indicates that the financial burden of accessing contraceptive services, including both the actual cost of the services themselves (direct costs) and other associated expenses like transportation or time off work (indirect costs), is significant. Additionally, the fact that these findings are consistent with recent studies implies that this is not an isolated issue but rather a recurring trend observed in multiple studies. These findings have important implications for policymakers, healthcare providers, and organizations involved in sexual and reproductive health, as they highlight the potential barriers that individuals may face when seeking contraceptive services and the need for strategies to reduce these costs or make services more accessible.

CHAPTER ONE

INTRODUCTION

1.1 Background

Fertility rate, average number of children born to women during their reproductive years, is one of the most important factors in population growth. It has a strong link to economic growth and development across the world. There is a global consensus that countries across the world must continue to work aggressively towards achieving a relatively low fertility rate to propel economic growth and eliminate poverty, and a lot of investment is needed to achieve this globally (United Nations, 2015). Access to contraception is a key strategic pillar for development, and it provides a good opportunity to empower women and adolescent girls, increase investments in children, and ultimately contribute to poverty reduction. Improved access to contraceptives is critical to achieving improved maternal health, reducing child mortality and combating HIV/AIDS (Darroch et al., 2016). In a developing country like Ghana, the need to manage fertility rate is even more urgent. Usage of Contraceptives has a significant effect on the health system as it helps to prevent unintended pregnancies, reduce the number of abortions, and lower the incidence of death and disability related to complications of pregnancy and childbirth (United Nations, 2015).

Studies suggest that access to modern contraceptives in developing countries could reduce the problem of unmet need for contraceptive uptake and reproductive health services, avert over 54 million unwanted pregnancies and 26 million abortions worldwide each year (Sedgh & Hussain, 2014). Attempts to increase the number of Family Planning (FP) users have been plagued with several barriers, such as accessibility (e.g., proximity), availability (e.g., commodity stock out), awareness (e.g., socio-cultural issues, education, and health literacy) and affordability of services (Sedgh & Hussain, 2014).Despite the significant efforts in Ghana targeted at integrating family planning services into other health services *(ACT, 2012)*, ensuring

continuous supplies of a broad range of contraceptive methods, and building the capacity of service providers, unmet need for contraceptives is still high (30%) in Ghana (Guure et al., 2019).

1.2 Problem statement

Improving family planning (FP) services and contraceptive uptake coverage in low-middle-income countries are topical public health concerns. Estimates suggest that access to modern contraceptives in developing countries could reduce the problem of unmet need for contraceptive uptake and reproductive health services. Attempts to increase the number of contraceptive users is challenged with several barriers, including access to Service Delivery Points, availability of FP commodities, socio-cultural barriers, and affordability of services (WHO, 2017.). Cost is a major barrier the health systems in most developing economies where healthcare financing is heavily reliant on out-of-pocket payment for certain health services (Amissah et al., 2020).

Ghana's revised National Health Insurance Act, 2012 (Act 852) mandates the Minister of health to include coverage of relevant clinical methods of contraceptive services in the list of NHIS benefits. However, implementation of this policy has not seen much progress, and contraceptive services continue to be paid out-of-pocket in most public and private facilities across the country (Wulifan et al., 2019). To achieve universal health coverage, including contraceptive services, there is the need to understand the household cost of accessing contraceptives services. However, little is known about the cost burden of accessing FP services among women in Ghana. Earlier (Amissah et al., 2020) found that contraceptive services are unequally distributed across the country and clients travel a long distance to access contraceptive services. And this traveling time to Service Delivery Points could mean a loss in productive time for the clients.

Because of the unequal distribution of health services across the country, consumers of contraceptive services experience different levels of indirect cost to access contraceptive services, including travel time,

waiting time, loss of or suspension of productive time/activities (Amissah et al., 2020). The level of indirect cost, in the context of the consumer, has direct influence on their ability to access services.

Aside that, the sources of finance for the payment of direct cost of contraceptive services, and their ability to pay also influences access to services among women, especially for adolescent girls who have no source of livelihood. Women and girls may have the cost afforded to them from relatively richer households whereby greater economic wealth reduces the presence of economic barriers to contraceptive service use. However, many others must rely on their partners who may not support the uptake of contraceptive services. This is especially important in Ghana's context to assess the level of implementation of the policy initiative of including contraceptive services as a package under the National Health Insurance Scheme (NHIS).

This study, therefore, aims to contribute to literature by exploring the cost of accessing modern contraceptive services among women in urban communities in Ghana.

1.3 General objectives

The general objective of this study is to explore the cost burden of accessing modern contraceptive services among women accessing services in urban communities in Ghana.

1.3.1 Specific objectives

The specific objectives are to:

- To estimate the direct cost (financial) of accessing contraceptive services among women in Ablekuma Central Municipal, Suame Municipal and Sagnarigu districts in Ghana in the last 12 months.
- To estimate the economic cost of accessing contraceptive services among women in Ablekuma Central Municipal, Suame Municipal and Sagnarigu districts in Ghana in the last 12 months.

- To estimate the intangible cost of accessing contraceptive services among women in Ablekuma Central Municipal, Suame Municipal and Sagnarigu districts in Ghana in Ghana in the last 12 months.

1.3.2 Research questions

The research questions are:

- What is the direct cost of accessing contraceptive services among women in urban communities in Ghana?
- What is the indirect cost of accessing contraceptive services among women in urban communities in Ghana?
- What is the intangible cost associated with accessing contraceptive services among women in urban communities in Ghana?

1.4 Significance of the study

Ghana's revised National Health Insurance Act, 2012 (Act 852) mandates the Minister of health to include coverage of relevant clinical methods of contraceptive services in the list of NHIS benefits. However, implementation of this policy has not seen much progress, and contraceptive services continue to be paid out-of-pocket in most public and private facilities across the country. The government of Ghana is currently in the final stages of scaling up an extended National health Insurance policy that will ensure the incorporation of some modern contraceptives in the National Health Insurance cover in the country. The outcome of this policy provides significant knowledge on other cost elements that can be considered in this policy to maximize its benefits to the nation.

The outcome of this research is also relevant to development practices, including healthcare providers and Civil society Organizations, as the knowledge can be used to improve service delivery Programmes and projects that seek to improve access to and utilization of contraceptives in Ghana.

Aside from that, the outcome of this research provides a good foundation for further research to explore cost of contraceptive services to the client, service delivery organizations and the state, and its relation on the uptake of contraceptives in Ghana.

1.5 Conceptual framework of the cost of contraceptive services

The direct cost of contraceptives services (including out of pocket payment and transportation cost) and its affordability directly influence women's ability to access services or not, is relevant to clients, service providers and government policy implementers in the quest to improve access to contraceptive services (Amissah et al., 2020). The direct costs refer to those costs incurred because of accessing service including Consultation cost, complementary tests, patient transportation (Yousefi et al., 2014). Information about actual spending on contraceptive service is not available for most developing countries, but the costs can be estimated from various sources of information about the prices of contraceptive commodities and other components of service provision (Darroch et al., 2016).

The Indirect costs refers to other incurred losses such as lost wages, lost productivity, and costs that would otherwise not be incurred (Yousefi et al., 2014). Because of the unequal distribution of health services across the country, consumers of contraceptive services experience different levels of indirect cost to access contraceptive services, including travel time, waiting time, loss of or suspension of productive time/activities (Amissah et al., 2020b). The level of indirect cost, in the context of the consumer, has direct influence on their access to services.

Intangible costs are those associated with the function lost, increased pain and reduced life quality (Yousefi et al., 2014). Intangible costs are defined as pain, anxiety, stigmatization associated with accessing contraceptive services and its impact on social relationships, which are usually measured by using the reduction in quality of life. This is because the procedure, depending on the method, may sometimes be invasive or involve an injection.

The sources of funding for the payment of direct cost of contraceptive services, and their ability to pay influences access to services among women, especially adolescent girls who have no source of livelihood. Women and girls may have advantages afforded to them from relatively richer households whereby greater economic wealth reduces the presence of economic barriers to contraceptive service use.

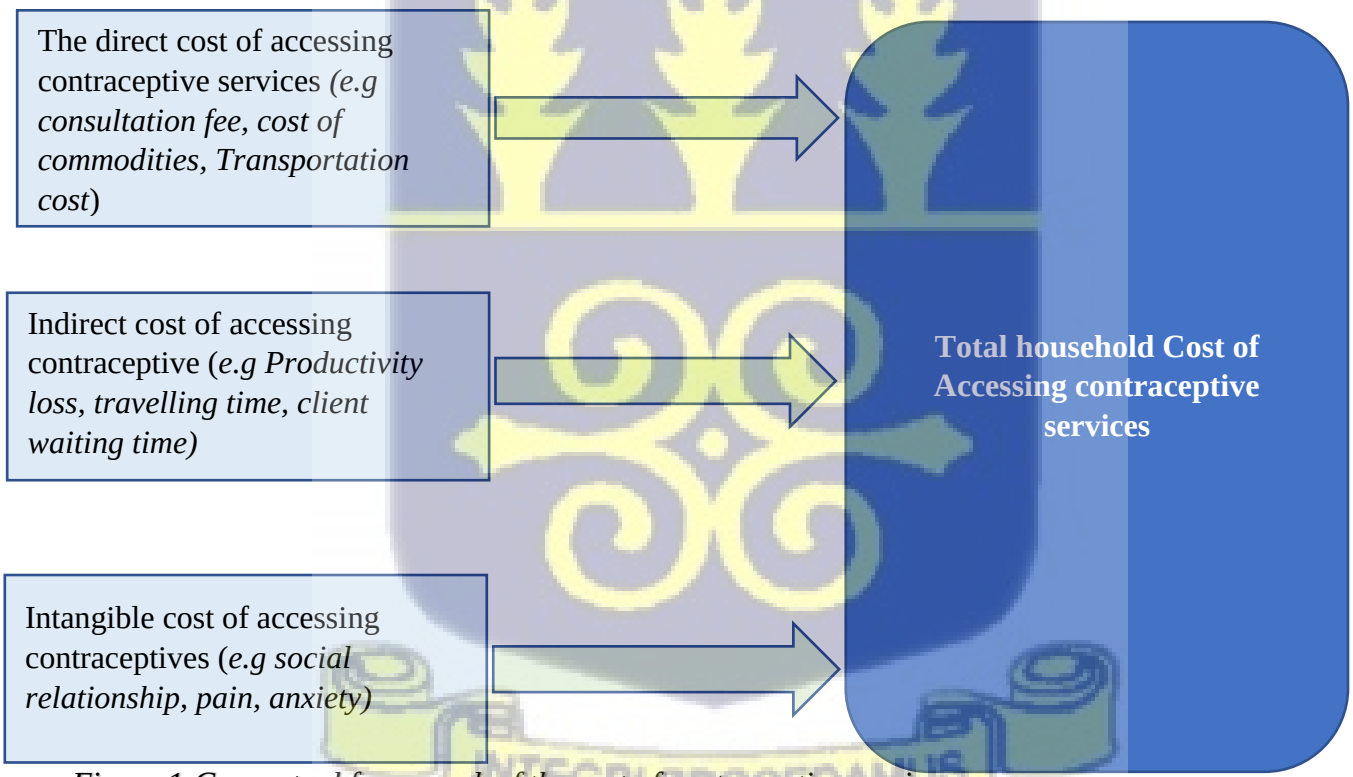

Figure 1:Conceptual framework of the cost of contraceptive services among women

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter focuses on the existing literature on contraception and its access among women as well as the associated cost. The literature review is categorized into the following headings: unintended pregnancies, unmet need for contraception, barriers to accessing contraceptive services, direct cost of contraceptive services, indirect cost of contraceptive services, intangible cost of contraceptive services, and the incorporation of Family planning into the Ghana National NHIS.

2.2. Unintended Pregnancies

Childbirth occurs within a complex social context with associated physiological implications for the mother, expected child, the family and society at large. When pregnancy occurs unintendedly, the associated complications are more likely to be enormous. Unintended pregnancies are pregnancies that are either unwanted; pregnancy at a time when no children or no more children were desired, or are mistimed, such as the pregnancy occurred earlier than desired (Amissah et al., 2019). Globally, about half of all pregnancies are unplanned, which contributes significantly to maternal mortality burden (UNFPA, 2022).

Globally, in 2014 alone nearly 290,000 women within the reproductive age (15–49 years) died from preventable pregnancy related complications of which sub-Saharan Africa accounted for 65% (179,000) of the deaths (Wulifan et al., 2019). Nearly half of all pregnancies, totaling 121 million each year throughout the world, are unintended (UNFPA, 2022).Trends in unintended pregnancies and abortions is an indication of the state of women's sexual and reproductive health, the strength of family planning Programmes and reproductive autonomy year (Bearak et al., 2020) Unintended pregnancy rates are

highest among those least able to afford contraception. The unintended pregnancy rate for poor women is more than five times the rate for women in the highest income bracket (Care & Women, 2017). Estimates suggest that access to modern contraceptives in developing countries could reduce the problem of unmet need for contraceptive uptake and reproductive health services, avert over 54 million unwanted pregnancies and 26 million abortions worldwide each year (Amissah et al., 2020). The overall prevalence of unintended pregnancy in Ghana stood at 29.8% (Amissah et al., 2019).

2.3 The unmet need for contraception

Fertility rate, average number of children born to women during their reproductive years has a strong linkage to economic growth and development across the world. There is a global consensus that countries across the world must continue to work aggressively towards achieving a relatively low fertility rate to propel economic growth and eliminate poverty, and a lot of investment is needed to achieve this globally (United Nations, 2015). Contraception is one of the most important enablers of couples and individuals to exercise the right to decide freely and responsibly the number and spacing of their children as the use of contraceptive methods has increased globally (UNFPA, 2022).

Access to contraception is a key strategic pillar for development, and it provides a good opportunity to empower women and adolescent girls, increase investments in children, and ultimately contribute to poverty reduction. Improved access to contraceptives is critical to achieving improved maternal health, reducing child mortality, and combating HIV/AIDS (Darroch et al., 2016). In a developing country like Ghana, the need to manage fertility rate is even more urgent. Contraception usage has a significant effect on the health system as it helps to prevent unintended pregnancies, reduce the number of abortions, and lower the incidence of death and disability related to complications of pregnancy and childbirth (United Nations, 2015). However, some women who want to avoid pregnancy still do not use any contraceptive

method, either because they do not have access to contraceptives or prefer not to use them for various reasons (Id et al., 2020).

The unmet need for contraceptives refers to the proportion of females (married or unmarried) wishing to limit or postpone childbirth, but not using contraception, has been central to reproductive health efforts for decades and remains relevant for most policy makers. The poor access to and low utilization of modern contraceptives is common in many Low- and Middle-Income Countries (LMICs) including Ghana. There is still a lag in contraceptive uptake across regions resulting in high unmet need due to various socioeconomic and cultural factors (Wulifan et al., 2016). The prevalence of modern contraceptive use among married/in union women in Ghana is 22%; that of unmet need among married/in union women is 30% and the demand for modern contraceptive satisfied is 39% (Guure et al., 2019).

2.4 Barriers to Accessing Contraceptive Services

Certain social barriers are known to affect access to contraception, including stigma, misconceptions, lack of knowledge, religiosity, and cultural values, impact women's motivation or ability to access contraceptive methods. Perceived side effects also have a significant role to play in women's ability or motivation to navigate through these perceived social barriers (Potasse & Yaya, 2021).

(Guure et al., 2019) examined factors that are associated with unmet needs for family planning services in Ghana. It was found that infrequent sexual intercourse, partner's opposition to contraceptive use and fear of side effects are significant factors contributing to the high unmet need for family planning in Ghana. Similarly, demographic and health surveys from 52 countries spanning the period from 2005 to 2014 have shown that about 7 out of 10 married women with unmet need for family planning cite either fear of side effects or health risks, infrequent or no sexual intercourse and opposition to contraceptive use (either by they themselves or from their significant others) as their reason for not using modern contraception. Four socio-economic factors, educational level, wealth index of household, respondent's

occupation, and partner's occupation, were also identified to be statistically significantly associated with unmet need for family planning. With respect to wealth index, only the richest and poorer respondents showed a significant difference (Guure et al., 2019). It highlights that health care financing strategies that place considerable emphasis on out-of-pocket payments can impoverish households. There is growing evidence of households being pushed into poverty or forced into deeper poverty when faced with substantial health expenditure (Guure et al., 2019). Research into the direct and indirect costs of contraceptive services is required to inform the development of appropriate social policies to improve access to and uptake of contraceptive services.

2.5 Incorporation of Family planning into the Ghana National NHIS

Millions of people in the world do not have access to the required health services due to poor performance of the health financing system. The main reason is that they cannot afford the health services charges (Yousefi et al., 2014). The programme of Action of the International Conference on Population and Development (ICPD), adopted in Cairo in 1994, recognized the basic right of all couples and individuals to decide freely and responsibly the number, spacing, and timing of their children and to have the information and means to do so, as well as the right to attain the highest standard of sexual and reproductive health (Id et al., 2020). Goal 3 (target 3.7) of the sustainable development goals (SDGs), seeks to end preventable deaths of women, children, and adolescents and to ensure their health and well-being through universal access to sexual and reproductive healthcare services by 2030 (United Nations, 2015). Expanding access to contraception and ensuring that the need for family planning is satisfied are essential for achieving universal access to reproductive healthcare services, as called for in the 2030 Agenda for Sustainable Development (Id et al., 2020). In recent years the Universal Health Coverage agenda has focused governments' attention on what is needed to achieve good health for all. It is well documented that out-of-pocket payments are undesirable from an equity and right to health perspective

and can be a barrier to uptake of health services and potentially lead to catastrophic health expenditure, especially among the poorest and most vulnerable (Derkyi-kwarteng et al., 2021). In many countries this focus has translated into efforts to design and roll out national health financing approaches such as National Health Insurance Schemes (NHIS). Ministries of Health and Finance and Health Insurance agencies are making important decisions about which services are covered in benefits packages and how those services are to be paid for (UNFPA, 2022). Ensuring access to family planning services, especially effective contraception, is not only crucial to directly improve reproductive health outcomes, but is also positively associated with improvements in health, schooling, and economic outcomes (Alkema et al., 2013). The government of Ghana is seen as a leader in this in sub-Saharan Africa. Its National Health Insurance Scheme (NHIS) was established by an Act of Parliament in 2003 to secure financial risk protection from the cost of healthcare services. The benefits package is exceptionally comprehensive, but contraception was excluded from the original design (Boddam-whetham & Duku, 2019). In the public and some private sector health facilities, FP commodities have been donor funded, but these funds are dwindling. According to Boddam-whetham and Duku (2019), a data analysis of service was done from 145 health facilities in 7 pilot districts in Ghana over a period of 12 months to see if it had any effect on uptake of services. This analysis showed that the removal of user fees and differential payments for different FP methods is associated with a pattern of greater uptake of long-acting methods of contraception among NHIS insured clients.

2.6 Economic cost

Healthcare demand is continuing to grow; however, the resources available for healthcare are explicitly limited. Consequently, ensuring the best value for money spent in healthcare has been placed high on the agenda for governments worldwide, with economic considerations gaining an increasingly prominent role when planning, managing and evaluating health systems(Rabarison et al., 2015). Economic cost is

both the explicit cost and the opportunity cost. This cost includes the gains and losses in terms of money, time, and resources. It considers both the monetary value and the choices not selected because of the choice selected. There is increased focus on the economic costs of health care, as demand for health care outstrips available resources. Accurate cost data have proven difficult to collect because of differences in prices across countries and within regions of the same country, the proprietary nature of economic data, and the fact that different elements of health care costs are borne by different entities (i.e., the patient, the insurer, the employer, the government). Acknowledging this, it is possible to divide the cost of a health care intervention into three components: direct costs, indirect costs, and intangible costs(Turner et al., 2021).

2.7 Direct cost of contraception

Health systems provide a variety of services which can improve human health conditions; however, use of these services may lead to catastrophic health expenditures or impoverishment for households (Yousefi et al., 2014). The direct costs refer to those costs incurred because of medical management of the disease, drugs, admissions, complementary tests, patient transportation (Yousefi et al., 2014). Cost is still a major barrier in health systems in developing economies where healthcare financing is heavily reliant on out-of-pocket payment for certain health services. According to (Potasse & Yaya, 2021), financial burden of contraception is one of the main barriers that women and their families face when seeking family planning services, with socio-economic differences between rural and urban women. Women of low socio-economic standing, particularly in rural areas, are less likely to use modern contraception, and have about twice as many children than wealthier families in urban areas (Potasse & Yaya, 2021).

2.8 Indirect cost of contraception

The Indirect costs refers to other incurred losses such as lost wages, lost productivity, and costs that would otherwise not be incurred (Yousefi et al., 2014). Amissah et al. (2020) estimated the cost of

accessing FP services in Ghana, it was discovered that consumers of the FP services lose a total of 73 minutes on each visit to service delivery point (SDP) owing to traveling and waiting time. On each visit, the consumer travels an average distance of 3.5 km. Consistent with earlier studies, FP services are unequally distributed across districts. Therefore, clients from rural communities may have to travel long distances to access FP services. The long traveling time to SDP could mean a loss in productive time for the clients.

2.9 Intangible Cost

Intangible costs are those associated with the function lost, increased pain and reduced life quality associated with accessing the service (Yousefi et al., 2014). Intangible costs are defined as pain, anxiety, stigmatization associated with accessing contraceptive services and its impact on social relationships, which are usually measured by using the reduction in quality of life. This is because the procedure for uptake of Contraceptive service, depending on the method, may sometimes be invasive for involve an injection.

2.10 Cost analysis

Economics is the study of decisions, through the examination of program incentives and consequences, and the measure of service production, delivery, and consumption. Economic evaluation is defined as "the systematic appraisal of costs and benefits of projects, normally undertaken to determine the relative economic efficiency of programs" (Rabarison et al., 2015).

Economic evidence is increasingly being used for informing health policies. There are many different approaches used for health economic analyses. Some types of analysis only examine the costs of an intervention or a disease (e.g., cost of illness studies) independently, whereas other types of analysis evaluate both the costs and consequences of an intervention. It is vital to understand the different roles of partial and full economic evaluations (Turner et al., 2021).

Partial economic evaluation measures program or disease costs but does not involve a comparison with alternative options and does not relate costs to outcomes. Partial economic evaluations include cost-of-illness analysis and program cost analysis. In public health, full economic evaluation compares two or more public health interventions through the examination of costs of inputs and outcomes(Turner et al., 2021). Using health economic analyses to investigate the value for money of different health interventions is particularly appealing to decision-makers when considering the use of a public budget to fund healthcare services. The role of health economic analyses in informing health policy has increased over time(Rabarison et al., 2015).

In this study, cost analysis was done by estimating the cost of accessing contraception from the perspective of the client. These cost elements include the direct cost of accessing contraceptive services (e.g., consultation fee, cost of commodities, Transportation cost), indirect cost of accessing contraceptive (e.g., Productivity loss, travelling time, client waiting time) and the intangible cost of accessing contraceptive (e.g., social relationship pain, anxiety). Intangible cost was estimated using a Likert scale to measure the likely effect of accessing contraceptive services on clients in the areas of fear, pain, social relationship, stigmatization /discrimination.

2.11 Empirical studies on Cost of Contraceptive access

In an observational study in Johannesburg, South Africa to assess Women's costs for accessing comprehensive sexual and reproductive health services, it was observed that among the 385 women who participated, 94.8% had at least one SRH need in the prior 12 months: 79.7% incurred costs for accessing care. On average, women spent $28.34 on SRH needs during the prior year. It was also projected that, if all participants sought care for all reported needs, their average annual cost would rise to $52.65 per woman. Only two women reported catastrophic expenditure – for managing infertility (Lince-Deroche et al., 2019). It should be noted that, this estimate included all SRHR needs of Women.

In a cross-sectional study involving 1194 women who accessed FP services in 336 primary health facilities to estimate the cost of accessing FP services in Ghana, it was discovered that the sources of finance to pay for FP services were self-finance, family, and sponsorship. The average direct cost of accessing FP services was GHS 7.90 (US$ 1.76). The cost of FP services was highest for consultation GHS 7.50 (US$ 1.67) Laboratory test/x-ray GHS 6.03 (US$ 1.34), Transportation GHS GHS5.50 (US$ 1.22), Contraceptive GHS 4.73 (US$ 1.05) and Client records Card GHS 3.30 (US$ 0.73). The cost of FP services was higher for clients visiting private facilities, tertiary level as well as those in urban centers. Clients on average spent 54.21 min traveling at 3.49 km and wait averagely 18.11 min for each visit (Amissah et al., 2020).

2.12 Conclusion

The literature reviewed, examined existing literature on contraception and its access among women as well as the associated cost. When pregnancy occurs unintendedly, the associated complications are more likely to be enormous. Unintended pregnancies are pregnancies that are either unwanted; pregnancy at a time when no children or no more children were desired, or are mistimed, such as the pregnancy occurred earlier than desired.

Contraception is one of the most important enablers of couples and individuals to exercise the right to decide freely and responsibly the number and spacing of their children, and worldwide the use of contraceptive methods has increased(Potasse & Yaya, 2021). There is still a lag in contraceptive uptake across regions resulting in high unmet need due to various socioeconomic and cultural factors.

Certain social barriers are known to affect access to contraception, including stigma, misconceptions, lack of knowledge, religiosity and cultural values impact women's motivation or ability to access contraceptive methods (Potasse & Yaya, 2021)..

Healthcare demand is continuing to grow; however, the resources available for healthcare are explicitly limited. Consequently, ensuring the best value for money spent in healthcare has been placed high on the agenda for governments worldwide, with economic considerations gaining an increasingly prominent role when planning, managing, and evaluating health systems. Research into the direct and indirect costs of contraceptive services is required to inform the development of appropriate social policies to improve access to and uptake of contraceptive/FP services. Ghana's National Health Insurance Scheme (NHIS) was established by an Act of Parliament in 2003 to secure financial risk protection from cost of healthcare services. The benefits package is exceptionally comprehensive, but contraception was excluded from the original design.

CHAPTER THREE

METHODS

This chapter provides an overview of the methods to be used in the study. It entails a vivid description of the methods and methodology used in achieving the stated objectives. It also details to be the research design used, study setting, target population, sample size and sampling method, data collection instruments, data analysis procedure and ethical procedure that is being used for the study.

3.1 Study design

This study employed a facility-based cross-sectional design using quantitative approaches to estimate household cost of accessing contraceptive services. Direct cost was estimated as medical cost and non-medical cost. Indirect costs were estimated through the reported lost time by clients. Intangible costs were described using a Likert scale to measure the likely effect of accessing contraceptive services on clients in the areas of fear, pain, social relationship, stigmatization /discrimination. The direct cost was estimated using approaches adopted in earlier studies (Amissah et al., 2020) on the cost incurred by clients in seeking FP service at the SDP. Direct cost was estimated by summing all cost incurred by clients in seeking contraceptive services at the SDP. Indirect was measured by costing the time value lost is estimated on the assumption that every time lost owing to contraceptive service contributes to productivity losses that affect daily wages.

3.2 Study area

The study was conducted in three (3) urban districts in Ghana, in three (3) Planned Parenthood Association of Ghana (PPAG) facilities in the Accra Metropolitan Assembly, Suame Municipal and Sagnarigu districts in the Greater Accra, Ashanti and Northern Regions respectively. These facilities were selected because of the existence of PPAG facilities providing contraceptive services in the districts.

PPAG is the leading, rights-based NGO in the field of Sexual and Reproductive Health and Rights (SRHR) in Ghana. Established on March 1967, the organization has ten facilities across Ghana that provide SRHR services, including contraceptive Services. PPAG has played a key role in Family Planning in Ghana over the years.

3.3 Study population

The study population comprises of women and girls accessing contraceptive services in the three selected PPAG clinics.

3.4 Study variables

Table 1 outlines the various variables to be used in the study. It includes variables for direct cost, indirect cost, and the client's source of finance.

Table 1:Description of study variables

Type of cost	Category of Cost	Variable
Direct cost	Medical	• Cost of consultation • Cost of commodity • Cost of other contraceptive services (e.g., removal of implant)
	Non-Medical Cost	• Cost of transportation • Cost of feeding
Indirect cost	Productivity losses	• Productivity loss to patient • Travelling time • Client waiting time
Intangible cost	Psychological	• Associated Pain • Anxiety/fear
	Social Relationship	• Partner's acceptance • Effect on relationship
Source of finance	Funding source	• Self • Family Member • Spouse • Others ….

3.5.0 Inclusion and Eligibility criteria

3.5.1 Inclusion criteria

The inclusion criteria of the study are;

- Women who report to the selected SDP for contraceptive services within the study period.

3.5.2 Exclusion criteria

The exclusion criteria of the study are;

- All clients who are not mentally sound.
- Clients accessing contraceptives from pharmacies and other outlets are excluded from the study.

3.6 Estimation of study sample size

A sample is a set of elements from a population from which data is collected. A similar study conducted by (Amissah et al., 2020) average household expenditure was estimated to be GHS 25.67 with a standard deviation of GHS 5.7

The sample size is calculated using the formula.

$$\mathbf{N} = \left[\frac{Z_{a/2}\sigma}{E}\right]^2$$

Where: n = sample size; $Z_{a/2}$ is the critical value (1.96) of 95% confidence level.

σ is the Standard deviation (GHS 5.7)

E is the margin of error estimated at GHS 1.05

$$\mathrm{N} = \left(\frac{1.96 \times 5.7}{1.05}\right)^2 = 114$$

Accounting for 10% non-response rate = 103 x 0.1 = 11

N=114+11 = 125

3.7 Sampling procedure

Multi-Stage sampling technique was used to recruit 125 women seeking contraceptive services in selected facilities in the study sites. The first stage involved a Convenience Sampling technique to select three (3) urban districts in three different regions across the country for the study. The study was conducted in the Accra Metropolitan Assembly, Suame Municipal and Sagnarigu districts in the Greater Accra, Ashanti, and Northern Regions respectively. These were selected purposively because of the existence of PPAG facilities providing contraceptive services.

In the second stage, simple random sampling technique was used to recruit clients at the facility level for data collection, where data is collected from clients who walk into the facility to access services during the data collection period. With this sampling technique, every subject meeting the inclusion criteria and conveniently available was selected and interviewed until the required sample size is achieved. The entire process of recruitment and data collection took place over a period of 20 days in the 3 selected clinics.

3.8 Data collection techniques/tools

Data on the socio-demographics (e.g. age, sex, marital status, educational level and place of residence) and the cost incurred by clients (e.g. transportation cost, cost of FP method, and waiting time) seeking Contraceptive services in selected facilities in three urban communities in three different regions was collected using a structured questionnaire by trained Resident Enumerators (RE), with assistance from health care professionals on duty, and checklist was used to gain information from their card. The questionnaire was programmed and loaded onto a smartphone on Kobo Collect to collect data electronically. A face-to-face interview was conducted in English, and where necessary, in the respondent's preferred local dialects (Twi, Ga, and Dagbani).

Data collectors screened clients using the inclusion and eligibility criteria. Eligible participants were taken through the participants information individually and their consent taken.

3.9 Data processing/management

A cost of illness approach focusing on direct cost and lost time value were adopted to estimate the cost of accessing contraceptive services in urban communities. This method has widely been adopted in estimating the cost of under-reported public health issues in several studies (Amissah et al., 2019/Amissah et al., 2020a). Data was be organized using Microsoft Excel and STATA version 16 and made ready for analysis.

3.10 Quality control

Data was collected using Kobo Collect App to facilitate accurate data entry and minimize data extraction errors. Data was subsequently downloaded from the Kobo collect Toolbox server in Microsoft Excel format and cleaned thoroughly for relabeling of variables, coding, and checking for missing values and double entries. This data was then be exported into STATAIC 16 for Quantitative analysis. The Kobo collect Toolbox is an array of tools for field data collection. The software is free and open source that is increasingly being used by professionals and researchers working in developing countries as a reliable efficient platform for collecting and analyzing data and was developed by the Harvard Humanitarian Initiative. The REs was trained on the use of the Kobo Collect application for data collection and translation of the questions into the different languages.

The questionnaire was pre-tested at PPAG Family Health Clinic in Accra for one day, and the feedback from the pre-testing were used to revise the tool to make it more effective. During the pre-testing, eighteen (18) interviews were done with clients (six interviews per zone).

The principal investigator provided supervision to the data collectors, observe the administration of the data collection instrument, and interact with the interviewed participant to verify questions and responses for the in-person interviews. The principal investigator also selected 12% of the respondents randomly and call back to verify questions and responses.

3.11 Data Analysis

3.11.1 Determination of background characteristics of respondents

The background characteristics of the study/survey respondents were obtained by cross tabulating age group with the following variables –, marital status, education level, ethnicity, residence (rural/urban), religion and socio-economic status using STATA Version 16. Data was summarized into means, frequencies, median and percentiles.

3.11.2 Estimating direct cost of accessing contraceptive services.

The direct cost was estimated using approaches adopted in earlier studies (Amissah et al., 2020) on the cost incurred by clients in seeking FP service at the SDP. It was estimated by summing all cost incurred by clients in seeking contraceptive services at the SDP.

Direct cost = folder/card fee + consultation fee + commodity purchased + transportation cost.

Data was summarized into means, median and percentiles.

3.11.3 Estimating the indirect cost of accessing contraceptive services.

The time value lost is estimated on the assumption that every time lost owing to contraceptive service contributes to productivity losses.

Indirect Cost (Time value loss) = summation of traveling time + distance traveled + waiting time at SDP for FP services. Data was summarized into means, median and percentiles.

3.11.4 Estimating Intangible cost

Intangible cost was estimated by measuring the level Pain and anxiety associated with accessing contraception using the Numerical Rating Scale (NRS), as well as the impact of the client's decision to access contraception on their relation. This scale makes the measurement of pain, anxiety, and the impact

on a relationship is inherently subjective. Different individuals may interpret and rate their experiences differently, making it challenging to obtain objective and standardized data.

3.11.5 Assessing the source of finance among contraceptive users accessing contraceptive services.

Data from participants on the source of finance for the cost of contraceptive services was summarized into means, median and percentiles.

3.12 Ethical consideration

The following ethical issues were considered in the study:

- Ethical approval was obtained from the Ghana Health Service Ethics Review Committee.
- Permission secured from the management of PPAG as well as the heads of the various facilities.
- A written/verbal informed consent was obtained from respondents before data is collected.
- All respondents were assured of confidentiality, and information in the study records was strictly protected to ensure confidentiality.
- Participation in this study was voluntary, and respondents were not be under any obligation to respond to questions or participate in the study if they do not want to.
- All respondents who agree to participate in the study were educated about the aim of the study.
- It was explained to participants that they are at liberty to withdraw at any stage without any sanctions if they feel like. And opting out did not affect their future care at the facility.
- Participants were not given any direct benefit for participation in this study. However, the findings from this study would be used to improve Programmes and policies in contraceptive services.
- There was a risk of contracting COVID-19 under the current circumstances of the COVID-19 pandemic. Therefore, all COVID-19 safety protocols were strictly adhered to.

CHAPTER FOUR

RESULTS

4.1 Introduction

This chapter is centred on the results of the study. The chapter is divided into eight sections, beginning with the sociodemographic characteristics of the participants, followed by the remaining sections which are presented according to the specific research objective.

Specific objectives

The specific objectives are to:

- To estimate the direct cost (financial) of accessing contraceptive services among women in Ablekuma Central Municipal, Suame Municipal and Sagnarigu districts in Ghana in the last 12 months.
- To estimate the Economic cost of accessing contraceptive services among women in Ablekuma Central Municipal, Suame Municipal and Sagnarigu districts in Ghana in the last 12 months.
- To estimate the intangible cost of accessing contraceptive services among women in Ablekuma Central Municipal, Suame Municipal and Sagnarigu districts in Ghana in Ghana in the last 12 months

4.2 Sociodemographic characteristics of study participants

The study had 125 participants in total, as stated in Table 4.1 below. Out of this total, 41.6% were single, 50.4% were married, 9% were living together, and 0.8% were in a separated relationship. Age-wise, most study participants (81.6%) were in the 21–50 age range. In terms of education, 63.2% of respondents had completed high school, 11.2% had completed higher education, 4.8% had only completed primary school, and 6.4% had never completed any kind of formal education. 34.4% of participants were unemployed, compared to 44.4% who were self-employed. 33.6% of people were Christians, while 65.6% were Muslims. As shown in table 4.2 below, in the last 12 months, 52% of the respondents visited the service delivery point once for contraceptive services, 16.8% visited two times, 3.2% visited three times, and 28% of the respondents visited four times.

Table 2:Showing the demographic respondents of the study respondents.

Variables	Frequency (n = 125)	Percentage (%)
Age groups (years)		
0-20 years	23	18.4
21-50 years	102	81.6
Marital status		
Cohabiting	9	7.2
Married	63	50.4
Separated	1	0.8
Single	52	41.6
Educational Level		
None	8	6.4
Primary	6	4.8
JHS/JSS	32	25.6
SHS/Tech	47	37.6
Tertiary	14	11.2
Other	18	14.4

Variables	Frequency (n = 125)	Percentage (%)
Employment status		
Full time	20	16
Part-time	7	5.6
Self-employed	55	44
Unemployed	43	34.4
Religion		
Christian	42	33.6
Muslim	82	65.6
Others	1	0.8
Number of visits in the last 12 months		
1	65	52
2	21	16.8
3	4	3.2
4	35	28

Average number of visits is **2.1**

4.3 Choice of Contraceptive method

In terms of contraceptive preference, 66.4% of respondents opted for injectables, or 19.2% used an intrauterine device, 12.8% chose oral contraception, and 2.4% preferred an implant.

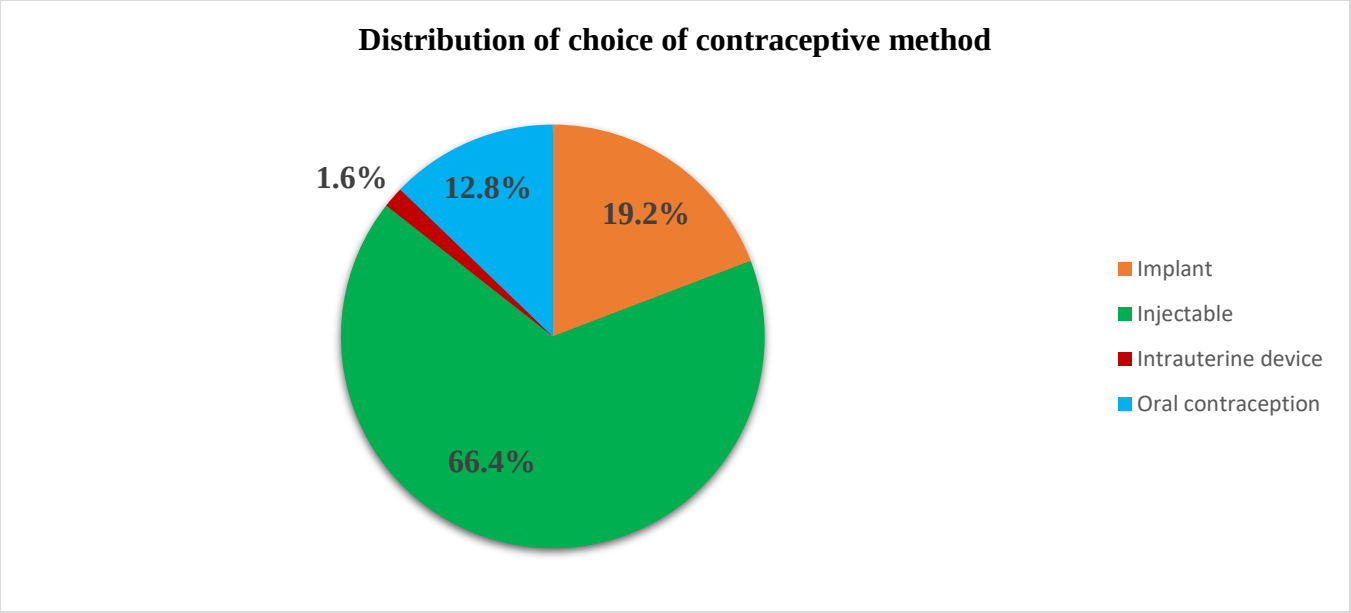

Figure 2:Distribution of choice of contraceptive method.

4.4 Direct Cost of Contraceptive services

As shown in table below, the Average Direct cost of contraceptive service is GHS18.4, comprising of GHS 8.5(46.4%) of direct Medical Cost and GHS 9.8% (53.6%) of direct non-medical cost. As shown in the table below, the direct medical cost is influenced by the choice of contraceptive. Cost of transportation constitutes 41.7% of the total Direct Cost of access contraceptive Services. Intrauterine devices are associated with the highest average cost (GHS 48.2), while Oral contraceptives has the least average cost (GHS 10.9). Injectables and implant made up 22.2% and 27.1% respectively.

Table3:Direct cost of accessing contraceptive Services.

Cost item	Cost GHS	Cost USD	Average cost GHS	Average cost USD	Cost profile (%)
Direct medical cost					
cost of consultation	441	36.75	3.5	0.29	19.2
cost of commodity	625	52.08	5	0.42	27.2
sub-total	**1,066**	**88.83**	**8.5**	**0.71**	**46.4**
Direct non-medical cost					
cost of food/Snack/water	124	10.33	1	0.08	5.4
cost of transportation	956	79.67	7.6	0.63	41.7
Other Payments	150	12.50	1.2	0.10	6.5
Sub-total	**1,230**	**102.50**	**9.8**	**0.82**	**53.6**
Total direct cost	**2,296**	**191.33**	**18.4**	**1.53**	**100**

Table 4: Cost distribution per choice of contraceptive method.

Contraceptive method	Minimum GHS	Maximum GHS	Average GHS	Average USD	Total cost GHS	Total Cost (USD)	Cost profile (%)
Implant	7.9	109.9	27.1	2.26	650.3	54.19	23.5
Injectable	4.6	107.3	22.2	1.85	1844.7	153.73	66.7
Intrauterine device	32.1	64.4	48.2	4.02	96.5	8.04	3.5
Oral contraception	7.6	15.7	10.9	0.91	175	14.58	6.3
Total	**2766.4**	**2766.4**	**2766.4**	**230.53**	**2766.4**	**230.53**	**100**

4.5 Indirect Cost of Accessing Contraceptives

Regarding indirect cost, clients lost an average of 52.13 minutes owing to traveling and waiting time; costing them average of GHS 3.8 of productivity, with Productivity loss due to travel time constituting 77.1% of this cost**.**

Table 5:shows the Indirect cost associated with accessing contraceptive services.

Cost item	Average Time Loss (Minutes)	Cost GHS	Cost USD	Average cost GHS	Average cost USD	Cost profile (%)
Productivity loss due to time travel	29.3	362.4	30.2	2.9	0.24	77.1
Productivity loss Due to waiting time	22.9	108.0	9	0.9	0.08	22.9
Total	**52.1**	**470.4**	**39.2**	**3.8**	**0.32**	**100.00**

4.4 Economic Cost of Contraceptive services

As shown in table below, the average economic cost of contraceptive service is GHS 22.1. Majority (83%) of the economic cost is made up of direct cost, while the remaining (17%) is indirect cost.

Economic cost

Cost item	Cost GHS	Cost USD	Average Cost GHS	Average Cost USD	Cost profile (%)
Direct cost					
cost of consultation	441	36.75	3.5	0.29	15.9
cost of commodity	625	52.08	5.0	0.42	22.6
cost of food/Snack/water	124	10.33	1.0	0.08	4.5
cost of transportation	956	79.67	7.6	0.63	34.6
Other Payments	150	12.50	1.2	0.10	5.4
Sub Total	**2,296**	**191.33**	**18.2**	**1.52**	**83.0**

Indirect cost		-		-	
Productivity loss due to time travel	362.4	30.20	2.9	0.24	13.1
Productivity loss Due to waiting time	108.0	9.00	0.9	0.08	3.9
Sub Total	**470.4**	**39.20**	**3.8**	**0.32**	**17.0**
Total economic cost	**2,766.4**	**30.53**	**22.1**	**1.84**	**100.0**

4.7 Intangible Cost

Regarding fear and anxiety associated with accessing contraceptives, 76% reported that they had no fear associated with using the contraceptive. In terms of Pain associated with the procedure, 52.8% reported severe pain, 11.2% reported moderated pain, 32% reported mild pain, and 4% reported no pain associated with the use of contraceptives. In terms of their social relationships, 94% also indicated that their decision to access contraception will not have a negative effect on their relationship.

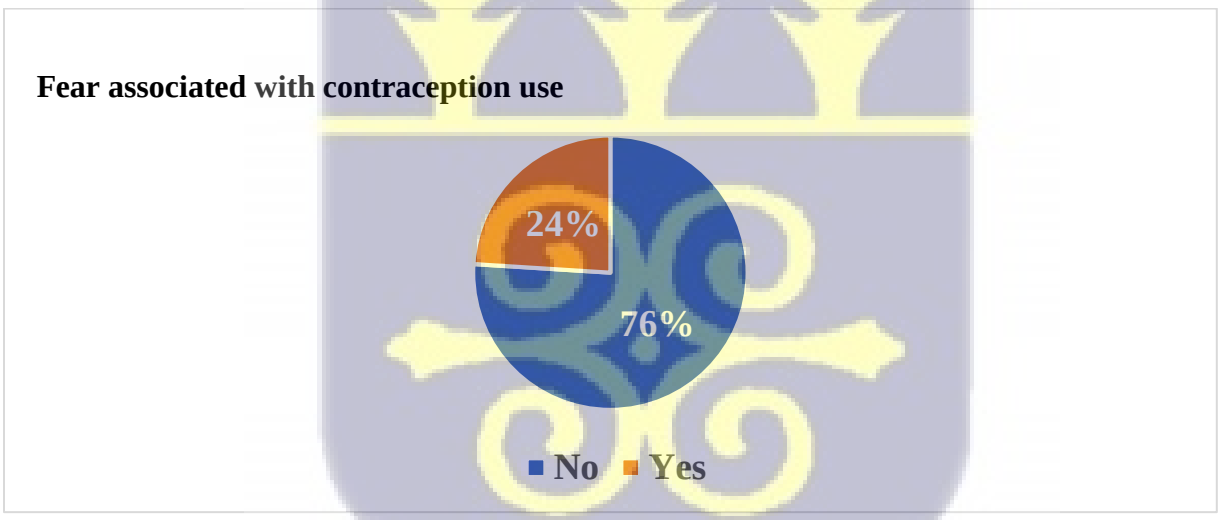

Figure 3:Fear associated with contraception use.

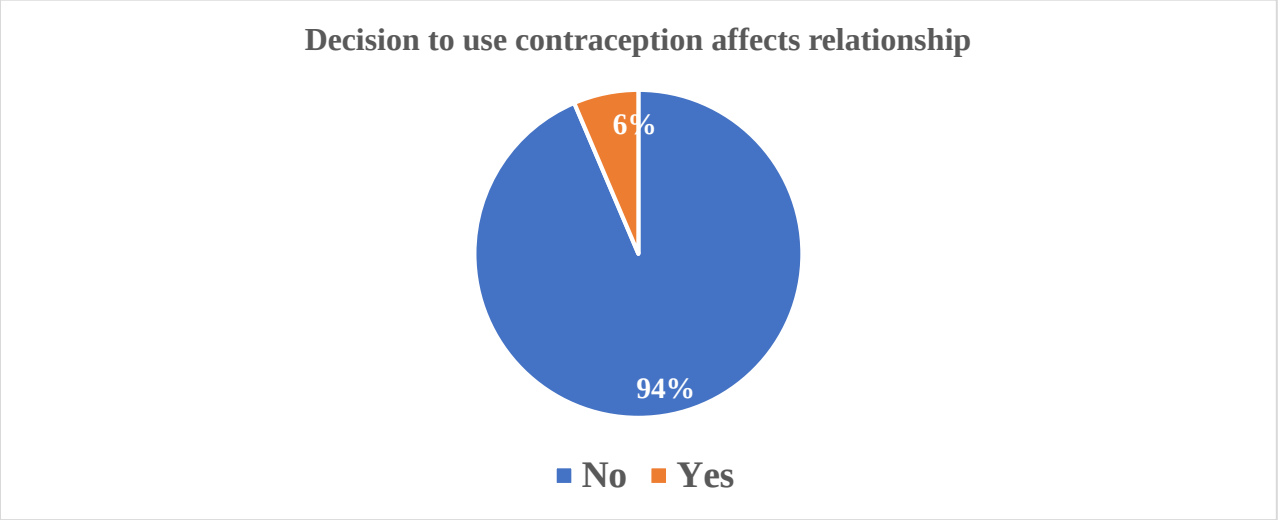

Figure 4:Shows whether the decision to use contraception affects relationship.

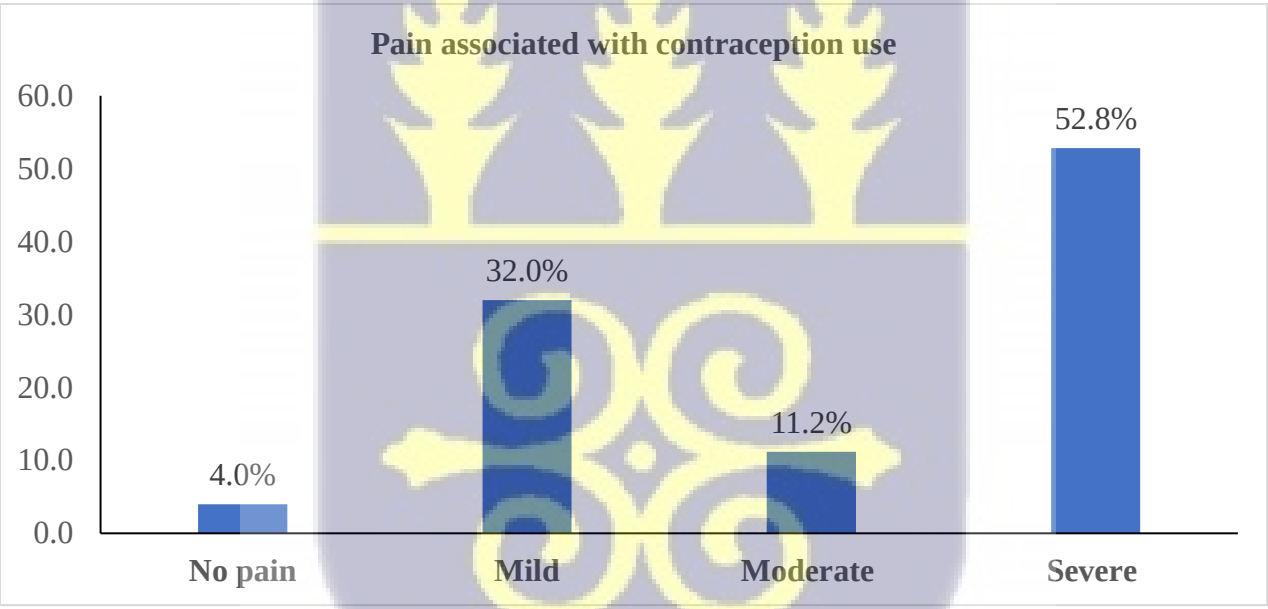

Figure 5:Shows the Pain score of associated with the Procedure.

Note: 0 = No pain; 1-3 = mild; 4-6 = moderate; 7-10 = severe

4.6 Source of Finance for the Associated Cost

As shown in the Table below, 48% of the respondents reported that the cost was financed by their spouse. 42% financed the cost by themselves. 71.2% of all the respondents indicated that they consulted their partners before taking a decision to access contraceptive services.

Table 6:shows the sources of Finance and Partners Consultation

Sources of finance support	**Frequency**	**Percentage**
Others	12	9.6
Self	53	42.4
Spouse	60	48
Consultation with partner before using contraception		
No	36	28.8
Yes	89	71.2

CHAPTER FIVE

DISCUSSION OF FINDINGS

Introduction

This chapter focuses on the discussion of the various findings of the study. The objectives of this study first presented followed by discussion of socio-demographic characteristics of the participants then the rest of the chapter is divided into sections according to the specific objectives of the study. Through a facility-based cross-sectional study, this research aimed to examine the cost of accessing modern contraceptive options among women using services in urban neighborhoods in Ghana. In particular, the study aimed to calculate the direct (financial), indirect (productivity losses), and intangible costs of women in Ghana's Ablekuma Central Municipal, Suame Municipal, and Sagnarigu districts in the last 12 months preceding this survey.

5.1 Sociodemographic Characteristics of participants

Because this was a facility-based study, all respondents of this study were users of modern contraceptives. Regarding relationship majority of respondents (50.4%) were married and 41.6% were single. This is consistent with a similar study where about 58.0% were married (Amissah et al., 2020). In terms of education, most respondents (63.2% of respondents had completed high school, this was also consistent with a similar study (Amissah et al., 2020) where 52.3% of the respondents had up to Junior High School (JHS) education. The study showed that more respondents (48%) had the cost of the service paid by their spouse as compared to the 42% who financed the cost by themselves. This is consistent with a similar study (Amissah et al., 2020) where more than half (68.8%) of the participants had these payments made by their spouse. Regarding partner consent, 71.2% of all the respondents indicated that they consulted their partners before taking a decision to access contraceptive services. research show that partner support of contraceptive related choices has a significant influence on contraceptive use of

women. Women who receive support from their partners are more likely to be current users of any contraceptive method (Agyekum, et al., 2022). This suggest that more men must be included in family planning initiatives and research, and they must be informed about the different contemporary contraceptive techniques and their adverse effects to create an enabling environment for access. c

5.2 Direct (financial) cost of accessing contraceptive services.

In the effort to increase access to contraceptive services, clients, service providers, and government policy implementers must consider how the direct cost of contraceptive services (including out-of-pocket expenses and transportation costs) and their affordability directly influence women's ability to access services or not. The term "direct costs" refers to expenses incurred as a direct result of receiving a service, such as consultation fees, additional testing, and patient transportation. The findings from this study showed that clients incurred an average direct cost of GHS18.4 ($1.54) in accessing contraceptive service specify the period. This finding is consistent with the results of a recent study in Ghana (Amissah et al., 2020) where clients spent an average direct cost of GHS 7.90 ± 5.7 [$1.76 ± 1.27] when accessing family planning services. This cost is relatively high when compared to the daily minimum wage (daily income) of the Ghanaian working population (GHS 14.88) in 2023. In particular, this shows that consumers spent more on direct costs (124%) to receive contraceptive services than the nation's minimal daily wage (daily income). Evidence from other studies suggests that healthcare funding strategies that heavily emphasize out-of-pocket expenses can cause household poverty (Guure et al., 2019). There exists increasing evidence that households are forced into catastrophic expenditure or are forced into greater poverty because of high healthcare costs (Hailemichael et al., 2014). Contraceptive services are severely hampered by the comparatively high direct cost of contraceptives, which creates a heavy financial burden on the household budgets of the average Ghanaian. The high cost of contraceptive access also has the tendency to deter clients with low incomes from obtaining routine care and eventually leads them to opt

for other money-saving choices. Users of modern contraceptives might be pressured in this situation to turn to ancient methods, which have a high failure rate (Dombola, & Chipeta, 2019), and this hinders global efforts to increase women's control over their fertility. In Ghana a parliamentary Act created the National Health Insurance Scheme (NHIS) in 2003 to provide financial risk protection from the cost of healthcare services. Contraception was not included in the original design, despite the generous benefit package (Boddam-Whetham & Duku, 2019). Donor funding has been used to purchase FP consumables in some private and public health institutions, but these funds are running out (Darroch et al., 2016). In order to determine whether there was any impact on care uptake, data from 145 health institutions across 7 pilot regions in Ghana were analyzed over the course of a year. Research shows that the cost of contraceptives is major barrier to access for many women in Low- and Middle-Income countries like Ghana (Dombola, & Chipeta, 2019). This the high direct cost estimated in this study suggest that there is a tendency of increased uptake of various forms of contraceptive methods among NHIS covered customers in Ghana following the full operationalization of the extended package of NHIS which will ensure the elimination of user fees and differential payments for FP methods.

In addition, the average direct cost comprised of GHS 8.5(46.4%) of direct medical cost and GHS 9.8 (53.6%) of direct non-medical cost. The direct medical cost is influenced by the choice of contraceptive, for instance, intrauterine devices are associated with the highest average cost (GHS 48.2), while Oral contraceptives has the least average cost (GHS 10.9). Injectables and implant made up 22.2% and 27.1% respectively. This shows that the long acting contraceptives (Intra Uterine Device and implant) were associated with higher direct cost as compared to the short acting methods (Injectables and oral pills). According to research, the cost-effectiveness of long-term contraceptive techniques is higher. As a result, purchasing long-term contraceptives would result in cost savings despite a higher initial service delivery cost (Ngacha, 2021).

Cost of transportation alone constituted 41.7% of the total direct cost of access contraceptive Services. This suggests that, even if the medical cost of contraceptive services is absorbed through the NHI, the direct non-medical cost, especially, transport cost may still serve as a barrier to accessing contraceptive services among Ghanaian women. This can be associated with the distance to and from the service delivery point. That notwithstanding, if contraceptive products are made free it will still benefit women who need contraceptives and reduce their cost burden.

5.3 Indirect Cost of Accessing Contraceptives

Indirect costs refer to other incurred losses such as lost wages, lost productivity, and costs that would otherwise not be incurred. Consumers of contraceptive services incur varying degrees of indirect costs to receive contraceptive services due to the uneven distribution of health services across the nation, including travel time, waiting time, loss of or interruption of productive time/activities, and travel time. The amount of indirect costs in the consumer's situation directly affects their ability to receive services.

According to the study's findings, customers lost an average of 52.13 minutes each visit due to travel time (29.3 minutes) and waiting time (22.9 minutes). The client's lost productivity time may result from the lengthy journey time to health care facilities. Clients must pay a minimum of GHS 3.8, or approximately 26% of the Ghanaian minimum wage, for the rather lengthy travel and waiting time. This is 29% less than the projected time lost in a study of a similar nature (Amissah et al., 2020), which found that users of financial planning (FP) services lost a total of 73 minutes on each visit to a service delivery point (SDP) due to travel and waiting time. This implies that eliminating direct cost of contraception alone may not be effective in increasing uptake if strategic interventions are not put in place to reduce the indirect cost of accessing contraceptives.

5.4 Economic Cost

Economic cost is both the explicit cost and the opportunity cost. This cost includes the gains and losses in terms of money, time, and resources. It considers both the monetary value and the choices not selected because of the

choice selected. There is increased focus on the economic costs of health care, as demand for health care outstrips available resources. To the client, economic cost is key determinant of the accessibility of health services, including contraceptive services (Korachais, 2016). As shown in table below, the average economic cost of contraceptive service is GHS 22.1. Majority (83%) of the economic cost is made up of direct cost, while the remaining (17%) is indirect cost. According to this study, the economic cost of contraceptive services is relatively high when compared to the daily minimum wage (daily income) of the Ghanaian working population (GHS 14.88) in 2023. This shows that FP client spent more on direct costs (149%) to receive contraceptive services than the nation's minimal daily wage (daily income). This means that FP client must sacrifice one and half days of their wages to access contraceptives. According to the results of this study, 78.4% of all the respondents were either unemployed (48%) or Self-employed (42.4%). Also, 42.4% of these respondents finance the cost of contraceptives by themselves. Relating this to the economic cost of contraceptives, these 78.4% of the respondents may find expenditure on contraceptives catastrophic, as they have little or no source of income. This suggest that, the extension of the National Health Insurance to cover cost of some modern contraceptive methods in Ghana (Boddam-Whetham & Duku, 2019) is timely and should be operationalized fully as soon as possible.

5.5 Intangible Cost

Intangible costs are those associated with function loss, increased pain and reduced life quality. Intangible costs are defined as pain, anxiety, stigmatization associated with accessing contraceptive services and its impact on social relationships, which are usually measured by using the reduction in quality of life. This is because the procedure, depending on the method, may sometimes be invasive or involve an injection.

According to the findings of this study, 76% had no fear associated with using the contraceptive. In terms of Pain associated with the procedure, 52.8% reported severe pain, 11.2% reported moderated pain, 32% reported mild pain, and 4% reported no pain associated with the use of contraceptives. The fear of pain and the experience of it could influence the decision to use one type of modern contraceptive or the other. In terms of their social relationships, 94% also indicated that their decision to access contraception will

not have a negative effect on their relationship. These findings, coupled with the findings that 48% of the respondents had the cost associated with their access financed by their spouse and 71.2% of the respondent consulted their partners before taking a decision to access contraceptive services; are indications that male partners are now more involved and supportive of the use of contraceptives by their partners.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Introduction

This chapter focuses on providing a summary of the key findings of the study and its limitations, as well as make some recommendations for policy, practice and research. The chapter provides a comprehensive overview of the entire study.

6.1 Limitations of study

Quantitative research enhances generalization of results when data is drawn from large random sample. However, due to limited time and finances, this study was limited to just three (3) urban districts in Ghana, in three (3) Planned Parenthood Association of Ghana (PPAG) facilities, selected based on a Convenience Sampling technique. Regarding the method used to acquire the data, the study had limitations. The data-gathering tool was self-created and did not make use of any previously approved tools. Nevertheless, several scientific checks were used, including pre-testing of the tools, a random selection of respondents, the creation of tools based on past literature reviews of the standard costing questionnaire, and discussions of the findings with pertinent literature.

6.2 Conclusion

This dissertation makes a significant contribution to a very important literature on the household cost of contraceptive services. This study, through a facility-based cross-sectional design used both qualitative and qualitative approaches to explore the household cost of accessing contraceptive services among women in urban communities in Ghana. Direct costs were estimated as medical cost and non-medical cost. Indirect costs were estimated by measuring the reported lost time by clients. Intangible costs were described using a Likert scale to measure the likely effect of accessing contraceptive services on clients

in the areas of fear, pain, social relationship, stigmatization /discrimination. According to this study, the direct cost of accessing Family Planning services at each visit is more (124%) than the daily minimum daily wage (daily income) of the country. This means that the ordinary client is in a situation of catastrophic expenditure whenever they decide to access FP services. Additionally, FP client lost an average of 52.13 minutes each visit due to travel time (29.3 minutes) and waiting time (22.9). This translates to a loss of about 26% of their daily wage. This long travel and waiting time could be a disincentive to clients who contemplate on accessing. According to this study, male partners are now more involved and supportive of the use of contraceptives by their partners.

6.3 Recommendation

Based on the findings of this study, it is recommended that the government of Ghana and the Ghana Heath Service intensify efforts to operationalize the incorporation of Family Planning Services into the National Health Insurance Scheme to eliminate the direct medical cost of contraceptive services. It is also recommended that the government of Ghana and other key stakeholders, including civil society organizations, continue to invest in health infrastructure across the country to reduce the distance clients must travel to access services. Other innovative strategies including service delivery outreaches and the deployment of digital health interventions to expand self-care products is greatly encouraged to help reduce travel time to and from the service delivery point for contraceptive services. Measures should also be put in place to reduce client waiting time at the service delivery facility. More studies are needed to establish the relationship between direct cost and access to contraceptive services.

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APPENDICES

PARTICIPANTS INFORMATION SHEET

The Information Sheet provides information about the research for participants to make an informed decision of whether to participate in the study or not. It outlines the nature of the research, what the research involves, risks, benefits, compensation (if there is none, this should be stated).

Title of Study: HOUSEHOLD COST OF CONTRACEPTIVE SERVICES AMONG WOMEN IN URBAN COMMUNITIES; A CASE STUDY OF PPAG'S FAMILY HEALTH CLINICS.

Introduction: The principal investigator (PI) Caesar Kaba Kogoziga, is a Master of Health Economics (MHE) student of the School of Public Health of the College of Health Sciences, University of Ghana. My email address is kogoziga@gmail.com. My telephone number is 0545510713.

Background and Purpose of research: This study seeks to measure the household cost of contraceptive services among women in urban communities; a case study of PPAG'S family health clinics to contribute to literature by exploring the cost of accessing modern contraceptive services among women in urban communities in Ghana. The general objective of this study is to explore the cost burden of accessing modern contraceptive services among women accessing services in urban communities in Ghana.

Nature of research: This study will employ a facility-based cross-sectional design using quantitative approaches to estimate household cost of accessing contraceptive services. Direct costs will be estimated as medical cost and non-medical cost. Indirect costs will be estimated for reported lost time by clients. Intangible costs will be described using a Likert scale to measure the likely effect of accessing contraceptive services on clients in the areas of fear, pain, social relationship, stigmatization /discrimination. The study population comprises of 113 women and girls accessing contraceptive services in the three selected PPAG clinics. The study will be conducted in three (3) urban districts in Ghana, in three (3) Planned Parenthood Association of Ghana (PPAG) facilities in the Accra Metropolitan Assembly, Suame Municipal and Sagnarigu districts in the Greater Accra, Ashanti and Northern Regions respectively.

- **Duration /what is involved:** A structured questionnaire would be used to elicit information from the study participants after the aim of the study has been explained to them and they are interested in participating. The questionnaire would be administered in the English Language for literate respondents and translated into Twi/Ga or other local languages for non-English literate respondents. This would last for 30 minutes.
- **Potential Risks:** There is a potential risk of contracting COVID-19 under the current circumstances of the Covid-19 pandemic.

- Therefore, the following interventions will be put in place to ensure the safety of the study participants and the research assistants; The researcher and research assistants will be in personal protective equipment that includes a full gown, facemask, face shield, gloves, and boot covers.
  Participants will wash their hands with soap under running water as observed by the research assistants before receiving the questionnaire
  Participants will sanitize their hands with alcohol-based rubs after filling the questionnaires. Social distancing will be maintained between the participants and the research assistants. Also, some of the questions may appear sensitive to the participants thus participants are at liberty NOT to answer questions they deem sensitive.

- **Benefits:** Participants would have the opportunity to gain some knowledge on the direct and indirect cost of contraceptives since each participant would be educated after data collection..
- **Costs:** Indicate whether there will be any costs incurred, e.g. transportation and who will be paying for that cost.
- **Compensation:** There is no compensation for completing this questionnaire. Your efforts and time to help in this research are, however, thoroughly appreciated.
- **Confidentiality:** The information in the study records will be kept strictly confidential. Data will be stored securely and measures will be taken to protect the security of data. No reference will be made in oral or written reports which could link you to the study. You will NOT be asked to record your name so that no one can match your identity to the answers that you provide.
- **Voluntary participation/withdrawal:** Participation in the study is voluntary and not compulsory. Participants have the right to decide whether or not they want to be part of the study. You can also withdraw your consent at any time of the study.
- **Outcome and Feedback:** Findings of the study will be shared with the selected facilities which may improve health service delivery.
- **Feedback to participant**: A report would be presented to various stakeholders such as the Ministry of Health (MOH), Ghana Health Service, and PPAG who formulate policies in contraceptives care and its related issues. The report will be published in a journal.
- **Funding information:** This study is funded by the principal investigator.
- **Sharing of participants Information/Data:** Participant information or data would be kept by the principal investigator. Filled questionnaires would be kept under lock and key, with only the principal investigator having access. It would not be shared with anyone else.
  Provision of Information and Consent for participants: A copy of the information sheet and consent form will be given to you to sign or thumb-print before participation in the study.
-

Who to Contact for Further Clarification/Questions: For any clarifications or concerns concerning this research, please contact Caesar Kaba Kogoziga at School of Public Health or on telephone number 0545510713. You can also contact me by e-mail at ariesaddico97@gmail.com. For further clarification on ethical issues kindly contact the Ghana Health Service Ethics Review Committee Administrator, Nana Abena Apatu on phone number 0503539896 or e-mail at ethics.research@ghs.gov.gh.

Appendix 1: Consent Forms

STUDY TITLE: Household cost of accessing contraceptive services in urban communities; a case study of PPAG family health clinics.

PARTICIPANTS STATEMENT

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

Name of Participant……

Signature of Participant …….. OR Thumb Print …….....

Date:……

INTERPRETERS' STATEMENT

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

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

Name of Interpreter……

Signature of Interpreter…….. OR Thumb Print …….....

Date:……

STATEMENT OF WITNESS

I was present when the purpose and contents of the Participant Information Sheet was read and explained satisfactorily to the participant in the language he/she understood (……)

I confirm that he/she was given the opportunity to ask questions/seek clarifications and same were duly answered to his/her satisfaction before voluntarily agreeing to be part of the research.

Name:……

Signature…….... OR Thumb Print …….....

Date:……

INVESTIGATOR STATEMENT AND SIGNATURE

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

Researcher's name……

Signature …….

Date…….

MODULE III

Appendix 2: questionnaire

No.	Question	Responses
	SECTION A - Socio-demographic Characteristics	
1.	Gender	☐ Male ☐ Female ☐ Prefer not to say
2.	Age (in years)	☐ 0-20years ☐ 21-50years ☐ 51-80years ☐ 81-100 years
3.	Marital status	☐ Married ☐ Single ☐ Divorced ☐ Separated ☐ Widow (er) ☐ Cohabiting
4.	Educational Level	☐ Nil ☐ Primary ☐ JHS ☐ SHS/Tech ☐ Tertiary ☐ Other
5.	form of Employment	☐ Full time ☐ Part-time ☐ Self-employed ☐ Unemployed
6.	Religion	☐ Muslim ☐ Christian ☐ Traditional ☐ Other ☐ None
	SECTION B – Direct Cost	
7.	How many times have you visited the health facility to access contraceptive services in the past 12 months?	
8.	What was your Choice of Contraceptive Method in each of these visits?	☐ Condom ☐ Oral contraception pills ☐ Injectable ☐ Intrauterine device

		☐ Implant ☐ Others
9.	What was the cost of consultation for you in each visit	Visit 1 …….. Visit 2…….. Visit 3……. Visit 4…… Visit 5……
10.	What was the cost of the commodity?	Visit 1 …….. Visit 2…….. Visit 3……. Visit 4…… Visit 5……
11.	How much did it cost to buy food or Snack or water?	Visit 1 …….. Visit 2…….. Visit 3……. Visit 4…… Visit 5……
12.	What was the cost of transport to the facility?	Visit 1 …….. Visit 2…….. Visit 3……. Visit 4…… Visit 5……
13.	Did you pay for any other service?	☐ Yes ☐ No

		How much? Visit 1 …….. Visit 2…….. Visit 3……. Visit 4…… Visit 5……
	How much?	 Visit 1 …….. Visit 2…….. Visit 3……. Visit 4…… Visit 5……
SECTION C – Indirect Cost		
14.	How long did it take you to travel to facility (in and out)	 Visit 1 …….. Visit 2…….. Visit 3……. Visit 4…… Visit 5……
15.	How long did you wait at the facility for the service? (In minutes)	 Visit 1 …….. Visit 2…….. Visit 3……. Visit 4……

		Visit 5……
16.	What would you have been doing if you did not visit the facility?	
17.	How much do you make in a month from your work?	
SECTION C - Intangible Cost		
18.	Rate the pain associated with this service on a scale of 0 – 10	
19.	Do you have any fear about contraception?	☐ Yes ☐ No
		If yes, please specify…….
20.	Did you consult your partner in the decision to take up contraception?	☐ Yes ☐ No
		If yes, is he in support of your visit? – Yes / No
21.	Will your decision to take up contraception affect your relationship?	☐ Yes ☐ No
		If yes, please specify how …… ……
SECTION D: Source of finance		
22.	What is the source of your finance for the associated cost?	• Self • Family Member • Spouse • A friend • Others. Specify …….

Appendix 3: Ethical Clearance letter

GHANA HEALTH SERVICE ETHICS REVIEW COMMITTEE

In case of reply the number and date of this Letter should be quoted.

Research & Development Division
Ghana Health Service
P. O. Box MB 190
Accra
Digital Address: GA-050-3303
Mob: +233-50-3539896
Tel: +233-302-681109
Email: ethics.research@ghs.gov.gh

My Ref. GHS/RDD/ERC/Admin/App/23/197
Your Ref. No.

5th March, 2023

Caesar Kaba Kogoziga
P.O. Box AN 5756
Latebiokoshie
Accra

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

GHS-ERC Number	**GHS-ERC: 035/02/23**
Study Title	Household Cost of Contraceptive Services among Women in Urban Communities; A Case Study of PPAG's Family Health Clinics.
Approval Date	5th March, 2023
Expiry Date	4th March, 2024
GHS-ERC Decision	**Approved**

This approval requires the following from the Principal Investigator

- Submission of a yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months
- Reporting of all serious adverse events related to this study to the ERC within three days verbally and seven days in writing.
- Submission of a final report after completion of the study
- Informing ERC if study cannot be implemented or is discontinued and reasons why.
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.

You are kindly advised to adhere to the national guidelines or protocols on the prevention of COVID -19

Please note that any modification of the study without ERC approval of the amendment is invalid.

The ERC may observe or cause to be observed procedures and records of the study during and after implementation.

Kindly quote the protocol identification number in all future correspondence in relation to this approved protocol

SIGNED.....
Dr. Naa-Korkor Allotey
(Ag. Head, Ethics & Research Management Department)

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