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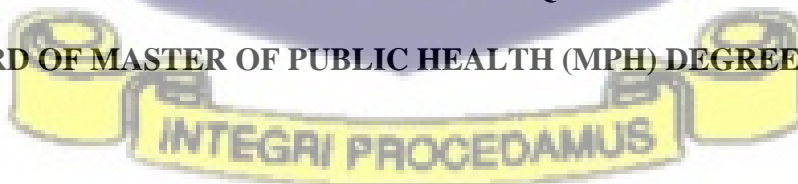
**ASSESSING THE BARRIERS AND FACILITATORS OF HIV AND AIDS
SERVICE INTEGRATION INTO ROUTINE SERVICES AT HEALTH CENTRES IN
CENTRAL REGION**

BY

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



JULY, 2022

DECLARATION

I, David Asare Amankwah hereby declare that apart from references to other people's works which have been duly acknowledged, this dissertation is as a result of my independent work and has not been submitted for the award of any degree in any institution.

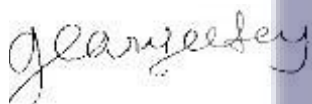


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DEDICATION

I dedicate this research to my supporting wife Miss Millicent Amakye, and my children Malvin Offe Asare, Golda Serwah Asare and Jayden Nti Asare.



ACKNOWLEDGEMENTS

My appreciation goes to the Almighty God who has been with me in my academic endeavors. I am grateful to all the authors and publishers whose scholarly work helped in writing this thesis. I am also highly indebted to my supervisor, Dr. Genevieve C Aryeetey, whose patience and supportive supervision made the completion of this work possible.

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Table of Contents

DECLARATION	i
DEDICATION	ii
ACKNOWLEDGEMENTS	iii
LIST OF TABLES	viii
LIST OF FIGURES.....	ix
LIST OF ABBREVIATIONS	x
DEFINITION OF TERMS.....	xi
ABSTRACT.....	xii
CHAPTER ONE	1
INTRODUCTION.....	1
1.1 Background of the study	1
1.2 Problem statement.....	4
1.3 General objectives.....	5
1.3.1 Specific objectives.....	5
1.4 Research Questions	5
1.5 Justification of the study	6
1.6 Conceptual Framework	7
1.6.1 Brief summary of conceptual framework.....	8
1.7 Scope of the study	8
1.8 Organization of the study	9
CHAPTER TWO	10
LITERATURE REVIEW.....	10
2.1 Introduction.....	10
2.2 Conceptual review.....	10
2.3 The concept of Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome	10
2.4 Integration of HIV/AIDS Initiatives	11
2.5 Concept of health system performance.....	12
2.6 Empirical reviews.....	13
2.6.1 Determination of Health Centers following HIV/AIDS training guidelines	13

2.6.2 Determination of the number of HIV/AIDS screened cases in Health Centres	15
2.6.3 Determination of the number of HIV/AIDS cases on treatment	16
2.6.4 Determination of Reduction of HIV/AIDS Viral Load Cases	17
2.6.5 Barriers and Facilitators that Militate Against the Integration of HIV/AIDS Services into Routine Health Services	18
2.7 Conclusion.....	20
CHAPTER THREE.....	21
METHODS	21
3.1 Introduction	21
3.2 Study design	21
3.3 Study area.....	21
3.4 Study population	23
3.4.1 Inclusion criteria.....	24
3.4.2 Exclusion criteria	24
3.5 Sample size and sampling	24
3.6 Data collection instrument	25
3.7 Data collection approach.....	25
3.8 Quality control	26
3.9 Data analysis procedure	27
3.10 Data management.....	27
3.11 Data storage and usage.....	28
3.12 Ethical approval	28
3.12.1 Ghana Health Services ethical approval	28
3.12.2 Approval for clearance to conduct the study.....	28
3.12.3 Informed consent from individual healthcare staff	28
3.12.4 Potential risks/Benefits compensation	29
3.12.5 Privacy/Confidentiality	29
CHAPTER FOUR.....	30
RESULTS	30
4.1 Introduction.....	30
4.2 Demographic characteristics	30

4.3 The Number of HIV/AIDS cases screened at the selected Health Centres in the Central Region	30
4.4 The Number of HIV and AIDS cases put on treatment at the selected Health Centres in the Central Region	31
4.5 The Number of HIV/AIDS viral load cases reduction at the selected Health Centres in the Central Region	31
4.6 Whether health workers follow the HIV/AIDS training guidelines at the selected Health Centres in the Central Region	32
4.8 Factors facilitating implementation of HIV/AIDS services	36
CHAPTER FIVE.....	38
DISCUSSION	38
5.1 Introduction	38
5.2 The Number of HIV/AIDS Cases Screened at the Selected Health Centres in the Central Region	38
5.3 The Number of HIV/AIDS cases put on treatment at the Selected Health Centres in the Central Region.	39
5.4 The Number of HIV/AIDS Viral Load Cases Reduction at the Selected Health Centre in the Central Region.....	39
5.5 Whether Health Workers Follow the HIV/AIDS Training Guidelines at the Selected Health Centres in the Central Region.....	40
Services into Routine Health Services	41
5.7 Study limitations	43
CHAPTER SIX.....	44
SUMMARY, CONCLUSION AND RECOMMENDATION	44
6.1 Introduction	44
6.2 Summary	44
6.3 Conclusion.....	45
6.4 Recommendations	46
REFERENCES.....	48
APPENDIX A: INFORMATION SHEET.....	57
APPENDIX B: CONSENT FORM FOR PARTICIPANTS	60

APPENDIX C: INTERVIEW GUIDE.....62
APPENDIX D: ETHICAL APPROVAL CLEARANCE.....65



LIST OF TABLES

Table 4.1: Themes on whether health workers follow the HIV/AIDS training guidelines
at the selected Health Centres in the Central Region.....32



LIST OF FIGURES

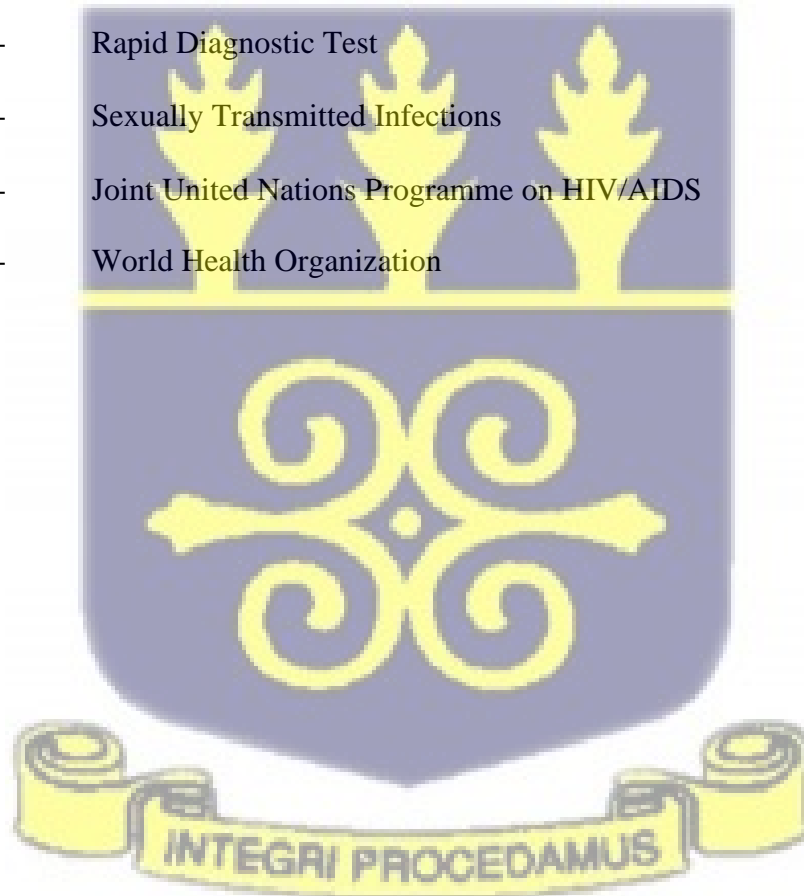
Figure 1.1: Assessing the barriers and facilitators of HIV and AIDS services integration into routine services at Health Centers in the Central Region7

Figure 2: Map showing the Districts in the Central Region where the study was carried out.....23



LIST OF ABBREVIATIONS

AIDS	-	Acquired Immuno-deficiency Syndrome
AOB	-	Asikuma Odoben Brakwa
ART	-	Antiretroviral therapy
HTC	-	HIV testing and counselling
HIV	-	Human Immuno- deficiency Virus
IGF	-	Internally Generated Fund L2TR: Locate Test Treat and Retain
PLHIV	-	People living with HIV.
PMTCT	-	Prevention of Mother to Child Transmission.
RDT	-	Rapid Diagnostic Test
STI	-	Sexually Transmitted Infections
UNAIDS	-	Joint United Nations Programme on HIV/AIDS
WHO	-	World Health Organization



DEFINITION OF TERMS

AIDS: (Acquired immunodeficiency Syndrome) is a chronic, potentially life-threatening condition caused by the human immunodeficiency virus (HIV).

HIV: This is a virus that attacks the immune system by damaging the immune system.

ROUTINE HEALTH SERVICE: This is the part of the health system where patients receive medical attention, treatment and supplies they are entitled to regularly.

HEALTH PERFORMANCE: This refers to a variety of aspects including health outcomes, clinical quality, and appropriateness of care, responsiveness, equity and productivity.

90, 90, 90 POLICY: Testing at least 90 percent of the people who come for health services at the various units in the Health sector, putting at least 90 percent of the people identified of HIV/AIDS on anti- retroviral medication. Reducing viral load of people living with HIV/AIDS by 90 percent.

HEALTH CENTRE: A health care Centre that provides primary health care to people in the rural area or small populated area. The Centre is mostly headed by a Midwife or Physician Assistant.

HCT: A test carried out to determine if someone is having the HIV infection with counselling.

LAST MILE DISTRIBUTION: A scheduled delivery of drugs and logistics delivery from the Regional Medical Stores.



ABSTRACT

Introduction: The World Health Organization has mandated that all services to HIV and AIDS clients should be decentralized to achieve the 90-90-90 global policy. In Ghana, HIV and AIDS patients are expected to receive services at the primary level to achieve the 90-90-90 targets. However, there seem to be some perceived challenges associated with integration and provision of HIV and AIDS services at the lower levels. This study therefore, seeks to assess the barriers and facilitators to integration of HIV and AIDS services into routine services at the health Centres in the central region of Ghana.

Methods: The study design was a case study employing mainly a qualitative approach to gather and analyse the data. The study utilised the purposive sampling to select 50 health workers trained to offer HIV and AIDS services at 10 health Centres in the Central region. The selected health workers were interviewed through focus group discussions and in-depth interviews. Interviews focused on issues including number of people screened, number of viral load cases, challenges to offering services and facilitators to services offered. The interviews were audio recorded and transcribed. Data was analysed using thematic analysis following the study's objectives.

Results: The study showed that from October 2018 to June 2021, about 12,250 clients have been screened at the 10 health Centres. Between 22 and 32 clients were under treatment per facility. Some challenges health workers experienced were delayed or no report from samples sent for viral load information, lack of space, logistics, stigma by colleagues, staff attrition. Few facilitators included the skills obtained through training to offer services, improved client condition, increased OPD attendance based on information of HIV and AIDS services offered at the Health Centers and facilities supporting HIV and AIDS services through IGF.

Conclusion: Integration of HIV and AIDS services into routine services at Health Centres poses diverse challenges that should be addressed should the 90-90-90 be achieved, particularly in the Central Region. In-house and external training should be continuous to meet client demand.

Key words: HIV/AIDS services, integration, barriers and facilitators, health centers, Central region, Ghana



CHAPTER ONE

INTRODUCTION

1.1 Background of the study

The Human Immuno-Deficiency Virus (HIV) is unquestionably one of the leading causes of morbidity and mortality among individuals in recent times (Global HIV/AIDS report 2020). Since the beginning of the epidemic in 1924, about 75 million people have been infected with a prevalence rate of 1.2 per cent (USAID, 2019) According to the World Health Organization [WHO] (2018), nearly 38 million and 1.7 million adults and children less than 15 years globally have been living with HIV with a little over a million losing their lives (Jacob et al., 2017). Additionally, the World Health Organisation recorded new infections of nearly 2 million by 2018. However, Sub-Saharan Africa continues to be the worst affected region as it carries more than 70% of the HIV burden with over 25 million people infected as of 2018. Of this number, 20.3 million people living with HIV are found in Eastern and Southern Africa whereas the West and the Central sub-region account for 5.4 million.

According to the Ghana AIDS Commission (2019), Ghana has seen a steady reduction in new infections for all ages at 19,990 new infections in 2018 compared to 20,062 in 2017. Currently, the prevalence rate stands at 1.7% for persons between the reproductive ages (15-49) with an estimated 330 000 People Living With HIV/AIDS (PLHIV). Notwithstanding, in the same year the death toll in Ghana increased by 0.2%. Furthermore, there have been many attempts by world health agencies (WHO and UNAIDS) to avert, reduce and halt the transmission of the HIV and AIDS epidemic by introducing several interventions. The Interventions/programs focused on the prevention of the transmission of HIV and AIDS through a complementary combination of

behavioural, biomedical and structural strategies (USAID, 2010). One of the earliest strategies included the utilization of the ABC approach (Abstinence, Being faithful and use of Condom) through sex education and counselling. A lot more such as the continuum of HIV testing, care and treatment, following the therapeutic practice like Antiretroviral Therapy (ART) and the Prevention of mother-to-child-transmission (PMTCT) were added on as strategies for transmission prevention. These later strategies, however, help to reduce the number of new infections in newborn by 60% between 2009 and late 2014 in many countries (WHO, 2020). This is affirmed in a research study conducted which revealed that over 90% of health facilities in Ghana have extended

ART services and PMTCT, especially at antenatal care sites (Addo et al., 2018). Similarly, by 2008, the ART services had been integrated into 67 Health Centres in Mozambique (Pfeiffer et al., 2010).

Considering this, various studies (Li et al., 2017; Meka et al., 2020; Ogunbajo et al., 2018) have been conducted on the barriers and facilitators of HIV and AIDS service integration into routine services at health Centres. In China, Li et al. (2017) assessed the barriers and facilitators of linkage to HIV care among HIV-infected young men who have sex with men. The findings indicated low literacy rate, stigma and perceived health status to be the barriers as well as the facilitators included social support, awareness of responsibility, and trusting and relying on services provided by the Centre for Disease Control and Prevention (CDC). Likewise, Meka et al. (2017) carried out a study in Cameroon on the barriers to HIV service uptake and delivery along the HIV care cascade. The results of the study revealed that fear of confidentiality breach and stigmatisation, as well as inadequate supply of HIV test kits, antiretrovirals and viral load testing reagents, were the barriers identified to militate against HIV services in routine services. In Ghana, Ogunbajo et al. (2018)

examined the barriers and facilitators to engagement in HIV care. The study found that the facilitators to HIV care include prior relationship and familiarity with hospital personnel, enrollment in health insurance, and positive experience in the healthcare setting. Concerning the intervention programs, a new world strategy was introduced in 2013 by the United Nations Programme on HIV and AIDS to address the epidemic known as the 90-90-90 target (WHO Consolidated Guideline on HIV Testing Services, 2015 page 2). This was projected to be a fast-track comprehensive strategy to meet the global response to end the epidemic by 2030. The strategy recommends having 90% of PLHIV know their status, 90% of people diagnosed to undergo treatment and 90% should have achieved a sustained virologic suppression by the end of 2020. The strategy is intended to be included in the routine health services rendered by all health facilities across the globe. Therefore, apart from sensitization to prevent transmission by the Ghana AIDS Commission, hospitals in Ghana are gradually following the 90-90-90 target principle. Thus, it is being included in their routine health service delivery. A report from the National AIDS/STI Control Program (2016), Ghana prepared a five-year road map known as L2TR meaning Locate, Test, Treat and Retain in response to the 90-90-90 targets.

Towards achieving the 90-90-90 target, health personnel have been taken through training which is the ultimate source for scaling up the testing and treatment of HIV/AIDS. This is consistent with WHO's (2018) report which proposed a work plan to improve treatment for HIV/AIDS such that healthcare givers would undergo a Treat, Train and Retain process. This was geared toward empowering the human resource in hospitals with new skills such that they can offer good treatment services for PLHIV. In light of this, the current study seeks to assess the barriers and integration of HIV and AIDS services into routine services at health Centres in the Central Region.

1.2 Problem statement

HIV/AIDS is one of the deadliest global health diseases affecting all regions of the world, causing the loss of millions of lives. Therefore, varying measures to control and/or end the HIV/AIDS pandemic have been implemented.

Until recently, only teaching and referral hospitals with specialist and highly trained health personnel were mandated to render HIV and AIDS services to PLHIV (World Health Report 2006). This was because only health workers like senior consultants and first-level healthcare providers had training in HIV and AIDS services. This implies that HIV testing was performed only in larger hospitals (Giancitti, Guglielmo & Mauro, 2017; Taylor, Clay-Williams, Hogden, Braithwaite & Groene, 2015), thus limiting the ability of the country to achieve the 90-90-90 target (Addo, et. al. 2018, Dako-Gyeke et al. 2016).

Given the improvement in HIV testing notwithstanding, the prevalence in Ghana continues to soar (Global AIDS report 2019). The National AIDS Control Programme (2011) in Ghana, indicated that Cape Coast recorded the highest HIV prevalence rate at 9.6% in 2011 with 12,077 annual new infections the same year. Also, the human resource (health workers) capacity has been a major setback for the scaling up in response to the 90-90-90 strategy (WHO, 2015). Thus, for over a decade now, less than 500 health workers have undergone training to deliver antiretroviral therapy in Ghana. Furthermore, though Prevention of Mother to Child Transmission (PMTCT) has been one of the success stories in response to ending HIV and AIDS, many people are yet to be reached with HIV services. One option could be the integration of services for HIV/AIDS clients at the level of the Health Centres in Ghana. However, personal observation shows somewhat utilisation and reduction with regards to HIV services in the Health Centres in the Central Region. This study,

therefore, seeks to assess the barriers and facilitators to the inclusion of HIV/AIDS services in routine services at various Health Centres in the Central Region of Ghana.

1.3 General objectives

The general objective is to assess the barriers and integration of HIV and AIDS services into routine services at Health Centres in the Central Region.

1.3.1 Specific objectives

1. To determine the number of HIV and AIDS cases screened at the selected Health Centres in the Central Region.
2. To determine the number of HIV and AIDS cases put on treatment at the selected Health Centres in the Central Region.
3. To determine the number of HIV and AIDS viral load cases reduced at the selected Health Centres in the Central Region.
4. To determine whether health workers follow the HIV and AIDS training guidelines at the selected Health Centres in the Central Region.
5. To explore barriers and facilitators that militate against the inclusion of HIV and AIDS services into routine services at Health Centres.

1.4 Research Questions

The study, therefore, asks the following questions:



1. How many HIV and AIDS cases have been screened at the selected Health Centres in the Central Region?
2. How many HIV and AIDS cases have been put into treatment?
3. What is the number of reduction of HIV and AIDS viral load cases across the selected Health Centres in the Central Region?
4. Do health workers follow the HIV and AIDS training guidelines?
5. What barriers and facilitators militate against the inclusion of HIV and AIDS services into routine services at the selected Health Centres in the Central Region?

1.5 Justification of the study

Human resources in the health settings describe persons who make sure healthcare happens. They include surgeons, physicians, nurses, midwives, pharmacists, and psychologists among other health professionals. All of these persons can train to locate, test, treat and retain people living with HIV/AIDS. Their existence, therefore, is crucial to promoting good health, and preventing and rehabilitating people living with HIV/AIDS. The effectiveness of the provision of healthcare is dependent on the knowledge, skills acquired and motivation of the human resources working in the health sector. The study will provide useful information to the government on the number of HIV/AIDS screened cases, cases put on treatment and the reduction of the viral load cases at the health Centres. This will enable them to implement policies that will encourage and promote the utilisation of the services by patients for good health and well-being. Again, the study findings will assist the Health Ministry to get the right number of healthcare providers with adequate skills in taking care of HIV/AIDS infected persons in the Central Region. The increased number of

trained personnel will help reduce the workload on the healthcare workers which subsequently will increase service quality. The study findings will help determine how the services of the trained health workers facilitate the elimination of the disease or reduce it to the barest minimum. Furthermore, the findings will give a deeper understanding of the barriers and facilitators that influence HIV/AIDS services into routine services at the Health Centres to enable the formulation of programmes to address such issues. Last but not least, this current study will contribute to the body of knowledge and be used as a reference for future studies.

1.6 Conceptual Framework

A conceptual framework for the assessment of the barriers and facilitators of HIV/AIDS services integration at Health Centres in the Central Region.

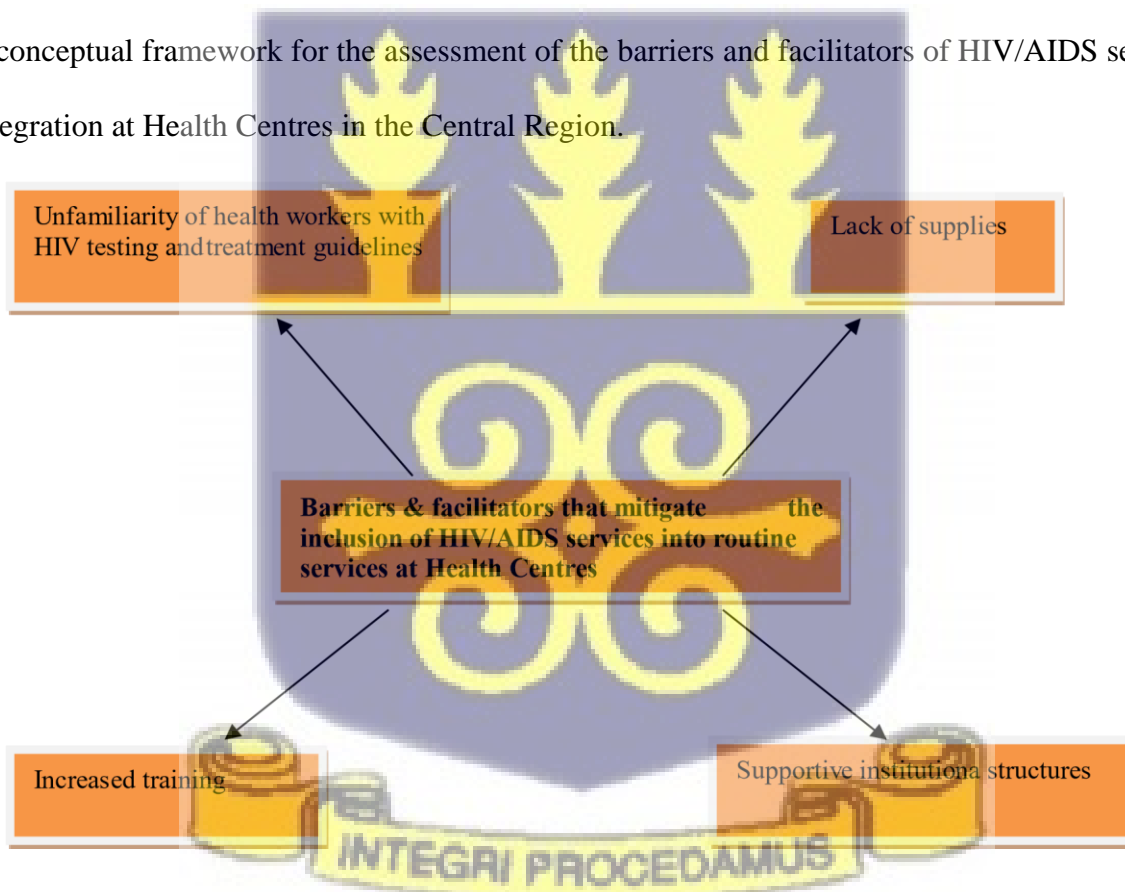


Figure 1.1: Assessing the barriers and facilitators of HIV and AIDS services integration into routine services at Health Centers in the Central Region

1.6.1 Brief summary of conceptual framework

This study seeks to explore the barriers and facilitators that militate against the inclusion of HIV/AIDS services in routine health services within the Central Region of Ghana. The conceptual framework demonstrates interconnectedness between the health system building blocks such as service delivery, human resource, medicine and technology, finance and governance and health information factors affecting the health system concerning the integration of HIV/AIDS services into routine health services.

Furthermore, the diagram indicates that the unfamiliarity of health workers with HIV testing and treatment guidelines and the lack of supplies were the barriers to the inclusion of HIV/AIDS services in routine health services. Also, the conceptual framework presents increased training and supportive institutional structures as the facilitators that militate the integration of HIV/AIDS services into routine health services.

When the building blocks of health care are measured closely, a change in one will automatically affect all the functions of the other building blocks of the health system especially when changes are made in governance and leadership, service delivery and workforce or human resource will be affected. With the measures stated in the figure above, the World Health Organisation's aims of attaining the 90-90-90 target will be facilitated whilst better services would be provided to people living with HIV/AIDS.

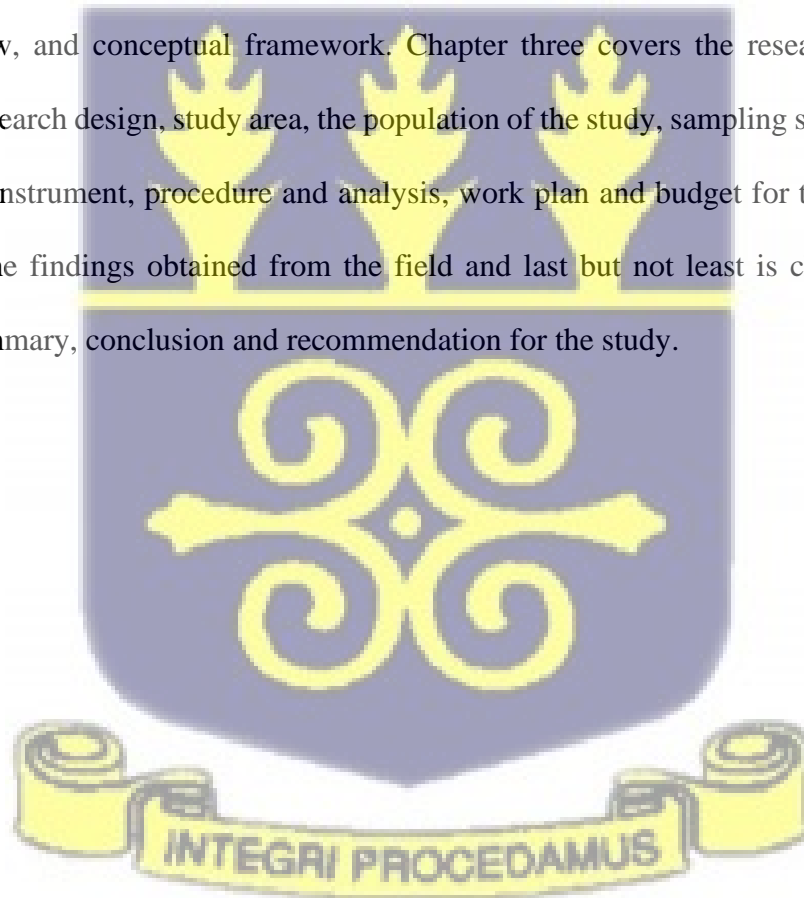
1.7 Scope of the study

The study focuses on assessing barriers and facilitators of the integration of HIV and AIDS services into routine health service delivery at Health Centres in the Central Region. The study will involve the health staff of Health Centres that have integrated HIV and AIDS services and

perform comprehensive care for HIV and AIDS patients at the Health Centres in the Central Region of Ghana. Given this, the study will be confined to the Central Region of Ghana. The study will be limited to the use of a qualitative approach for data collection. This approach will help to obtain a deeper understanding of how the 90-90-90 target will be achieved.

1.8 Organization of the study

The study is organized into five chapters. It thus begins with chapter one which introduces the study covering the background of the study, the problem statement, objectives and research questions, justification of the study, organization of the study as well as the definition of terms. The second chapter presents the literature review which consists of the conceptual review, empirical review, and conceptual framework. Chapter three covers the research methodology consisting of research design, study area, the population of the study, sampling size and technique, data collection instrument, procedure and analysis, work plan and budget for the study. Chapter four provides the findings obtained from the field and last but not least is chapter five which presents the summary, conclusion and recommendation for the study.



CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides the review of relevant literature related to the assessment of the inclusion of HIV/AIDS services into routine services at Health Centres from secondary sources like books, articles and other online sources. The chapter further is organized into sections that cover conceptual review and empirical review. The former entails the definition of terms found in the research topic while the latter reviews studies that are related to the objectives of this current study from peer-review journals.

2.2 Conceptual review

This section captures all explanations of the concepts under the research topic. The health sector is an entity dealing with the improvement of the health of the growing population of the world as well as providing quality service. This section, therefore, aims at providing an in-depth explanation of the concept of HIV/AIDS, the concept of the HIV/AIDS testing services including the use of ART, PMTCT and the 90-90-90- target will be thoroughly discussed. Furthermore, the performance of the health concerning the inclusion of these services in routine services is further explained.

2.3 The concept of Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome

The world health organization describes it as a confronting killer disease which is a global health emergency that has affected all the regions worldwide (WHO, 2018). The Human immunodeficiency syndrome is a virus that attacks the human cells (immune system) called CD4

which is a type of T cell. According to Territo (2018), the cells are white blood cells that act as detectives to identify abnormalities in the cells as well as infections. These cells become weak and can combat diseases thereby increasing the risk of the impact of other infections and diseases. People living with the virus depend on the antiretroviral therapy (ART) medication with which without it the virus advances into the next stage which is AIDS. It is a deadly infection that stays with an infected person throughout. The advanced stage (AIDS) has a fatal rate of one hundred per cent. The transmission can occur through fluids in the body (WHO, 2018).

2.4 Integration of HIV/AIDS Initiatives

According to Rutenberg et al. (2003), mother-to-child transmission is the main cause of HIV infection in newborns. Both the HIV counselling and testing (HCT) and the prevention of mother-to-child transmission (PMTCT) programs are key and essential global HIV initiatives with which international health organizations have integrated into health systems worldwide (Asiyanbola et al.2016). The two are usually associated with antenatal care services. According to the World Health Organization (2010), the programs offer a wide range of services to help reduce the risk of newborns acquiring HIV. The range of services provided by the PMTCT program includes prevention and treatment.

With this, studies like transmission Fowler, Qin and Fiscus (2015) have shown that the use of antiretroviral therapy (ART) has significantly lowered prenatal HIV. This has resulted in the growing support for PMTCT and new international initiatives to combat HIV like the launching of PMTCT programs in 2011 to eliminate the vertical transmission of HIV by 2015 (Vrazo, Sullivan & Phelps, 2018). Supporting this statement, the WHO also indicated that between 2010 and 2018 over a million young children were saved from contracting the virus through the PMTCT program. This is a complete revelation of the elimination of the transmission from mother to the

child within nine years. The reports thus indicate that it is as a result of the integration of the program into the health systems worldwide.

Last but not least, the 90-90-90 target is a strategy aimed at ending the epidemic on the globe by 2030. The strategy presents itself as an opportunity to lay the foundations to secure a healthier world for future generations. Furthermore, the 90-90-90 strategy intends to eliminate HIV infections through testing and treating all humans. Thus, it is intended to have 90% of all people living with HIV to know their status, 90% of all diagnosed to be treated with the antiretroviral therapy treatment (ART) and that 90% of the treated cases have reduced viral loads by the end of 2020. As mentioned previously, this strategy is a critical tool for eliminating the epidemic which has claimed a lot of lives (UNAIDS, 2014). This strategy together with the previously mentioned preventive measures will help minimize infections and the prevalence of HIV as well as end the epidemic.

2.5 Concept of health system performance

The performance of health systems has stirred the interest of many countries and other international organizations. It is seen as an essential tool to assess the system towards achieving effectiveness, equity, efficiency and quality through monitoring and management of resources Arah, Klazinga, Denoju, Asbroek and Custers (2003). Performance of medical facilities are giving incentives to be efficient in their service delivery as such patients look at this criterion to select the best service provider. The performance of the health facilities has thus been subjected to ratings concerning insights gained from global comparisons (Smith, & Papanicolas, 2012). Furthermore, the contribution of the health system to healthcare can be more reliably captured in terms of clinical outcomes for patients. Traditionally, this contribution has been examined using posttreatment mortality which is a blunt instrument. However, the perspective of the performance

of health facilities without human resources is not enough. Thus, human resources make input in the operations at the hospital. With that Rocha et al. (2014) invest in the training of health professionals significantly contributes to health improvement. To this effect, every country has its designed framework which is geared towards having a healthy population and the appropriateness of the health system to standards (Braithwaite et al., 2017).

2.6 Empirical reviews

The activities of the human resource of the health system are key in assessing the inclusion of HIV/AIDS services in routine health services. As such, this section reviews studies is based on specific objectives, including determination of Health Centres following HIV/AIDS training guidelines, determination of the number of HIV/AIDS screened cases, determination of the number of HIV/AIDS cases on treatment, determination of reduction of HIV/AIDS viral load suppression and the barriers militating against the inclusion of HIV/AIDS into routine health service delivery.

2.6.1 Determination of Health Centers following HIV/AIDS training guidelines

There is a worldwide growing need for the reduction and the elimination of the HIV/AIDS epidemic, therefore; the World Health Organization together with other health agencies introduced some initiative interventions. These interventions are intended to be adhered to by audiences including policymakers, HIV/AIDS program planners and coordinators, healthcare Centres, non-governmental agencies providing HIV/AIDS services and civil society groups. Given this, the WHO and UNAIDS HIV/AIDS testing policy statements were developed (UNAIDS, 2014). The statement includes that the HIV test is recommended for all patients who report at the health facilities irrespective of the epidemic situation. Secondly, the test must be a standard part of

medical care as well as individuals must be given the opportunity should they decline to do the test and should they decline, and they can be counselled.

Asianyabola et al. (2016) assessed HCT services provided for pregnant women in Ibadan, Nigeria.

The study employed qualitative approaches for data collection and analysis. It also made use of the observatory and inventory checklist to gather data from the respondents. Results revealed that the Health Centres provided the HCT service for the respondents because it was mandatory before the start of antenatal care, so it can be deduced that at least one of the policies (HIV testing for all patients) of the WHO was being adhered to. Additionally, findings showed that post counselling after the test was not done however, the respondents were handed their test results directly. Under the observatory procedure, it was revealed that the health facilities did not adhere to the guidelines for the counselling process. In the end, it was noticed that the HCT services were not consistent with the standards posed by the regulatory bodies due to inadequacies in the procedure. Similarly, Mwangome, Geubbels, Wringe, Todd, Klaster and Dieleman (2017) identified the determinants of HIV guideline implementation in South Tanzania. The study was carried out using the qualitative approach. About five (5) health facilities were involved from which 23 personnel including health workers, and regional and district health coordinators were interviewed. Findings from the study indicated that none of the five health facilities had the HTC national guideline; other health guidelines that were lengthy and written in English were mostly underused. The Activities that were perceived to be complicated such as the WHO staging guidelines were avoided. These posed challenges and hindered the training guidelines not to be followed.

The logo of the University of Ghana is a watermark in the center of the page. It features a shield with a blue background and yellow symbols: three torches at the top and a stylized emblem below. A banner at the bottom of the shield contains the Latin motto "INTEGRI PROCEDAMUS".

Under the observatory procedure, it was revealed that the health facilities did not adhere to the guidelines for the counselling process. In the end, it was noticed that the HCT services were not consistent with the standards posed by the regulatory bodies due to inadequacies in the procedure. Similarly, Mwangome, Geubbels, Wringe, Todd, Klaster and Dieleman (2017) identified the determinants of HIV guideline implementation in South Tanzania. The study was carried out using the qualitative approach. About five (5) health facilities were involved from which 23 personnel including health workers, and regional and district health coordinators were interviewed. Findings from the study indicated that none of the five health facilities had the HTC national guideline; other health guidelines that were lengthy and written in English were mostly underused. The Activities that were perceived to be complicated such as the WHO staging guidelines were avoided. These posed challenges and hindered the training guidelines not to be followed.

2.6.2 Determination of the number of HIV/AIDS screened cases in Health Centres

The existence of HIV was detected through several screening processes provided at medical laboratories or medical Centres with HIV counselling and testing sites. These studies, therefore, show the percentage of Health Centres that provide such services in different places. According to a technical briefing by Khongonyawa et al. (2018), Malawi integrated and implemented the HIV testing intervention known as the index cases testing into its district health system between 2012 and 2018. The plan was implemented in seven districts of Malawi namely: Nkhata Bay, Likoma, Blantyre, Chiradzulu, Thyolo, Mwanza, and Neno. The project revealed that a total of 25,572 adults and children from families living with HIV were tested. Of this number 22% tested positive for the infection.

Addo et al. (2018) examined the availability of HIV services provided along the continuum of HIV care in Ghana. The study adopted a cross-sectional study across 172 antiretroviral therapy Centres. The study found out that the majority of the Centres surveyed provided HIV testing coupled with ART provision, Preventive Mother to Child Transmission (PMTCT), TB Screening and counselling. It is also identified from the study result that there were poor records on viral load and early infant diagnosis and laboratory testing services were also done among the Centres with 5.8% and 13.4% respectively. Though the proportion of screening among the Centres was not enough, there is however a general improvement in the number of Centres providing HIV testing. The study, however, does not bring out the proportion of the Health Centres that do not carry out the testing.

In a similar study, Deribrew et al. (2018) also investigated the capacity of health facilities for the diagnosis and treatment of HIV/AIDS in Ethiopia. The study result revealed that screening services provided in about 5% of private hospitals included viral load and tuberculosis screening.

One-third of the 873 Centers provided ART. The study also found out that the urban Centre was privileged and hence had better capacities to carry out the tests in their Health Centres.

Finally, Katbi, Adegboye, Adedoyin, Yunusa, Kayode, Bello and Dakum (2017) also examined the effect of the Strategic Index Case Testing in Nigeria. The study was conducted in seven local government areas that were selected for epidemic control. After the testing was done, a total of 1277 index cases were counselled and interviewed with only 63% agreeing on disclosure. In the end, the test result indicated that 378 persons tested HIV positive.

2.6.3 Determination of the number of HIV/AIDS cases on treatment

According to UNAIDS (2010), nearly 2 million people died of the HIV epidemic in 2009, therefore, an intervention program was rolled out to cut the transmissions. One successful strategy was the introduction of antiretroviral therapy whose core component was for the provision of treatment of HIV cases as well as care hence, it is generally known as the management practice for people living with HIV (PLHIV). According to Gilks, Crowley, Ekpini, Gove, Perriens, Souteyrand, and Decock, (2006), Optimal ART increases the length and quality of life of PLHIV and reduces the onward transmission of the virus. Therefore, it is important to note that diagnosed cases are automatically signed on to the treatment session to delay the development of drug resistance, prolong, preserve and enhance the quality of life (Lohse, Hansen, Pedersen, Krongborg, Gerstoft, Obel, 2007). The treatment with the medication helps to achieve a virological goal of a maximum reduction of viral load for the longest possible time.

Kahungu, Kiwanuka, Kaharuza and Wanyenze (2018) examined the factors associated with HIV positive serostatus among exposed infants attending care facilities in Uganda. The study used a cross-sectional design and a quantitative approach from routine data from the mother's HIV card. Out of the 493 exposed infants, 32 were detected as HIV positive and hence were put on ART.

2.6.4 Determination of Reduction of HIV/AIDS Viral Load Cases

According to USAID (2016), one of the attached reasons for introducing the 90-90-90 target is to attain suppression of the HIV/AIDS infection of 90% of People Living with HIV/AIDS by the speculated time. Given this, USAID (2016) further indicates that improvements in rendering a variety of treatment services including routine viral load testing significantly lead to the achievement of the target. More so, the effectiveness of treatment accounts for the assessment of HIV viral load. The determination of viral load is captured as a low viral load which involves less to zero number of HIV viral particles found in a millilitre of blood or high indicating a greater number of HIV viral particles per millilitre of blood.

Keiser, Chi, Gsponer, Boule, Orell, Phir and Egger, (2011) iterate that a low viral load suggests a reduction of viral particles which is translated into the ART treatment being effective. However, a high viral load is which suggests that the ART treatment was not taken properly or viral particles have become resistant to the medication. Miller, Powers, Smith and Cohen (2015) also demonstrate that community viral load where the viral loads of infected persons are aggregated serves as a measure of assessing HIV treatment as prevention.

Charlebois, Das, Perce and Havlir (2011) examined the effect of expanded antiretroviral treatment strategies on the HIV/AIDS epidemic among homosexuals in San Francisco. The study performed three (3) ART expansion strategies including treatment of all individuals currently receiving care with CD4 cell counts less than 500 cells/mm³, treatment of all individuals receiving care and intensified annual testing coupled and treatment of all People infected with the disease. At the end of the process, the study found out that though all three strategies consequently resulted in the reduction of the predicted prevalence of infection and new infection, a significant reduction was associated with the test and treatment of all strategies.

Similarly, the study by Attia, Egger, Muller, Zwahlen and Low (2009) aimed at synthesizing the evidence on the risk of HIV transmission through unprotected sexual intercourse according to viral load and treatment with a combination of antiretroviral therapy. The study was carried out using a longitudinal system review of medical abstracts of studies spanning from 1996 to 2009. Findings from the study revealed that the transmission rate from a seropositive partner with a viral load below 400copies/ml on ART was zero-based on two studies. Furthermore, the rate of transmission overall from ART-treated patients was 0.46%.

2.6.5 Barriers and Facilitators that Militate Against the Integration of HIV/AIDS Services into Routine Health Services

Mwangome, Geubbels, Wringe, Todd, Klaster and Dieleman (2017) identified the determinants of HIV guideline implementation in South Tanzania. The study was carried out using the qualitative approach. About five (5) health facilities from which 23 personnel including health workers, and regional and district health coordinators were interviewed. The study found out that the health facilities lacked trained staff as well as supplies like test kits and medication. These were identified to hinder the implementation of the HIV/AIDS inclusion in routine health service delivery. Similarly, Dapaah and Senah (2016) examined the socio-psychological trauma patients experience in their desire to access health care in two health facilities performing HIV/AIDS services in the Ashanti region of Ghana. The study utilised the qualitative approach through participant observation and in-depth interviews and used the purposive sampling technique. The study involved health workers and clients of the antiretroviral therapy units from the two hospitals. The study found out that people are labelled or suspected to be HIV/AIDS infected persons once they are sighted at the HIV Counselling Centre. This alone suggests performing inclusion of HIV Services in health routines threatened the privacy of patients and made it difficult for others to

even go for testing because it demonstrated some sort of stigmatization. Furthermore, clients of the Health Centres were uncomfortable visiting the health facilities due to the poor quality of service given by the health caregivers and breaching the confidentiality of protecting their status and identity.

Likewise, Pollini, Blanco, Crump and Zuniga (2011) assessed barriers to HIV care initiation by persons diagnosed with HIV in a community-based study. The study involved persons living with HIV infection. The study found out that the age factor (younger age) posed a strong barrier to early treatment initiation. This implies that due to shyness, younger persons infected with HIV tend to delay their treatment process. Other challenges include: not having insurance, shorter time of diagnosis, not knowing status, not knowing other HIV persons as well as PLHIV having a staunch belief of not being positive.

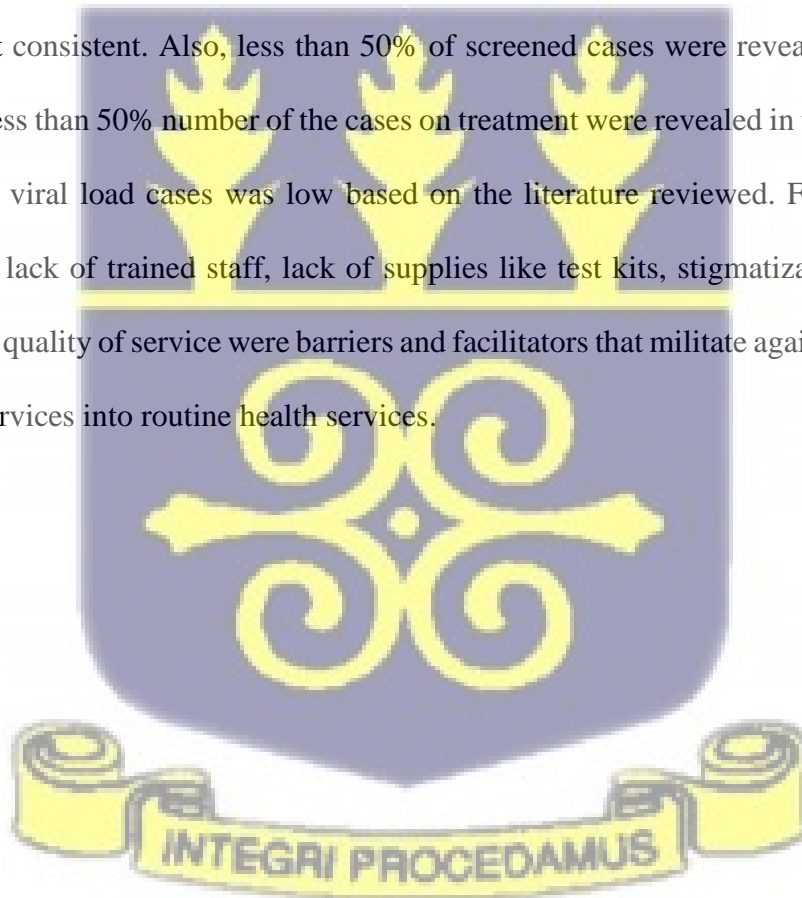
Likewise, Watt, Sigfrid, Legido-Quigley, Hogarth, Maimaris and Balabanova (2017) assessed the barriers to the integration of HIV and chronic disease services in a health system. The study used a systematic review approach and presented the findings in thematic forms. Findings from the study revealed that there was a need for effective collaboration and coordination, and adequate skilled and trained staff to support the program. Also, the unavailability of resources, as well as structural support, impeded the integration. Last but not least, the study revealed that the service integration imposed more transaction costs on the health facilities as communication and collaboration were identified as facilitators.

Finally, Birdthistle et al. (2018) conducted a study on the integration of HIV and reproductive health services in public sector facilities in Kenya. The study utilised the purposive sampling technique to select 15, 270 districts from 2009 to 2012 for data collection and analysis. The results

of the study revealed that an increase in HIV counselling provided at the health Centres led to increasing utilisation of the HIV/AIDS services.

2.7 Conclusion

In conclusion this review, the National AIDS Control Programme (2011) in Ghana indicated that Cape Coast recorded the highest HIV prevalence rate at 9.6% in 2011 with 12,077 annual new infections the same year. However, the existing studies on the inclusion of HIV/AIDS services in routine health services are insufficient. Thus, this study will examine the inclusion of HIV/AIDS services in routine health services to contribute to efforts in decreasing the prevalence rate in the Central Region. Also, the review of studies indicated that the use of guidelines among health workers was not consistent. Also, less than 50% of screened cases were revealed in the review. Consequently, less than 50% number of the cases on treatment were revealed in the review. Again, the reduction of viral load cases was low based on the literature reviewed. Finally, the review showed that the lack of trained staff, lack of supplies like test kits, stigmatization, high cost of service and poor quality of service were barriers and facilitators that militate against the integration of HIV/AIDS services into routine health services.



CHAPTER THREE

METHODS

3.1 Introduction

This chapter presented the methods used to address the objectives of the study. This consists of research design, the study area, the population for the study, the criteria (inclusion and exclusion), sampling method and size, data collection instrument, procedure and analysis, variable definitions and ethical consideration.

3.2 Study design

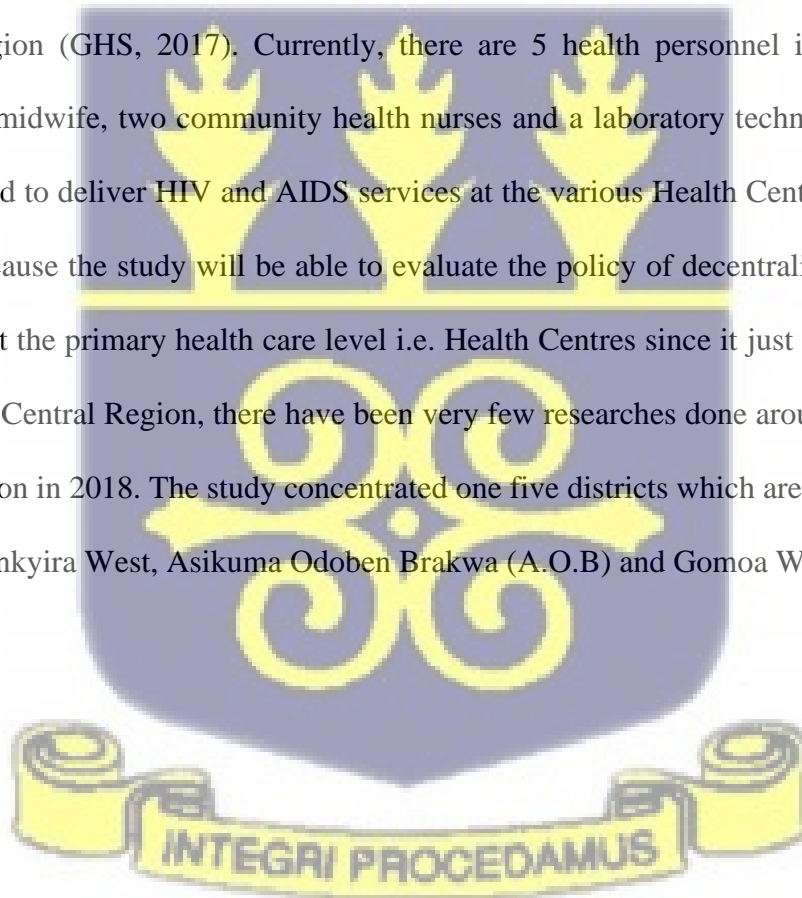
The research study design refers to the overall plan that a researcher chooses to integrate into the research work such that the research questions can be effectively answered (Saunders et al., 2012). Therefore, the study adopted a case study design. According to Ridder (2017), a case study design is a research approach where comprehensive and in-depth information about a complicated issue in real-life context is obtained. The purpose for selecting this design is to enable the researcher to probe into the field of study and elucidate what has been reported by the numerous opinions regarding the subject matter. The study also adopted a qualitative approach to gather data. According to Al-Bushido (2008), qualitative study in health research helps to determine the meaning of a phenomenon through the description. The study adopted a qualitative research approach because it will provide in-depth insights about the preparedness of Health Centres and their contribution towards achieving the 9090-90 target).

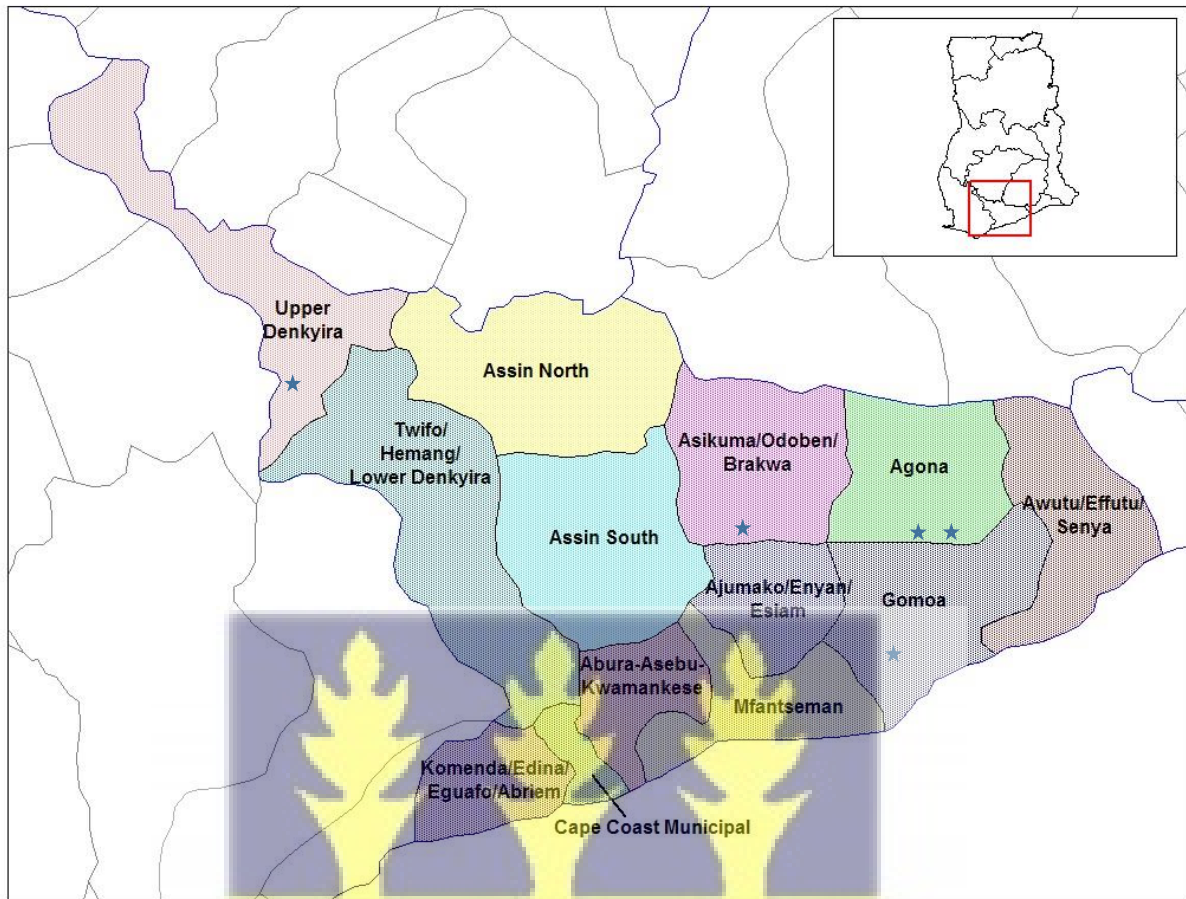
3.3 Study area

The Central Region is one of the 16 administrative regions of Ghana. It is bordered by Ashanti Region and Eastern Region to the north, Western Region to the west, Greater Accra Region to the east and the south by the Gulf of Guinea. The region is also administratively divided into 21

districts. The region is known for its numerous elites due to the existence of some of the best second cycle educational institutions and training colleges as well as three public tertiary institutions and three private ones. It also houses several tourist attraction sites like the recreational park and castles and forts. Its capital is Cape coast and there are 20 administrative districts (GSS 2010 projects). According to DHS (2008), the region has about 63% of rural dwellings. The overall population of the Central Region stands at 2,503,619 with a Total Fertility Rate of 4.7(GHS fact sheet, 2007) an annual growth rate of 3. 1% (GHS, 2012).

There are about 117 health facilities and clinics in the Central Region (Ghana Hospital, 2019). This is made up of 75 Health Centres, 12 district hospitals, 17 hospitals and 3 polyclinics within the Central Region (GHS, 2017). Currently, there are 5 health personnel i.e. one Physician Assistants, one midwife, two community health nurses and a laboratory technician identified to have been trained to deliver HIV and AIDS services at the various Health Centres. The topic has been chosen because the study will be able to evaluate the policy of decentralizing the HIV and AIDS services at the primary health care level i.e. Health Centres since it just began in less than two years in the Central Region, there have been very few researches done around this area since its implementation in 2018. The study concentrated one five districts which are Agona East and West, Upper Denkyira West, Asikuma Odoben Brakwa (A.O.B) and Gomoa West





Key

Figure 2: Map showing the Districts in the Central Region where the study was carried out.

Source: Ghana Statistical Service (2014)

3.4 Study population

The target population for the study were all health workers involved in providing HIV and AIDS services at Health Centres in the Central Region. There are about 75 Health Centres in the region that have trained health workers that offer HIV and AIDS services.

3.4.1 Inclusion criteria

The inclusion criteria were

- i. Health facilities that offer HIV/AIDS services
- ii. Health workers or personnel who have been trained and are involved in running HIV/AIDS services at the Health Centres.
- iii. All health professionals who agreed to sign the consent form, as well as those present on the day of data collection

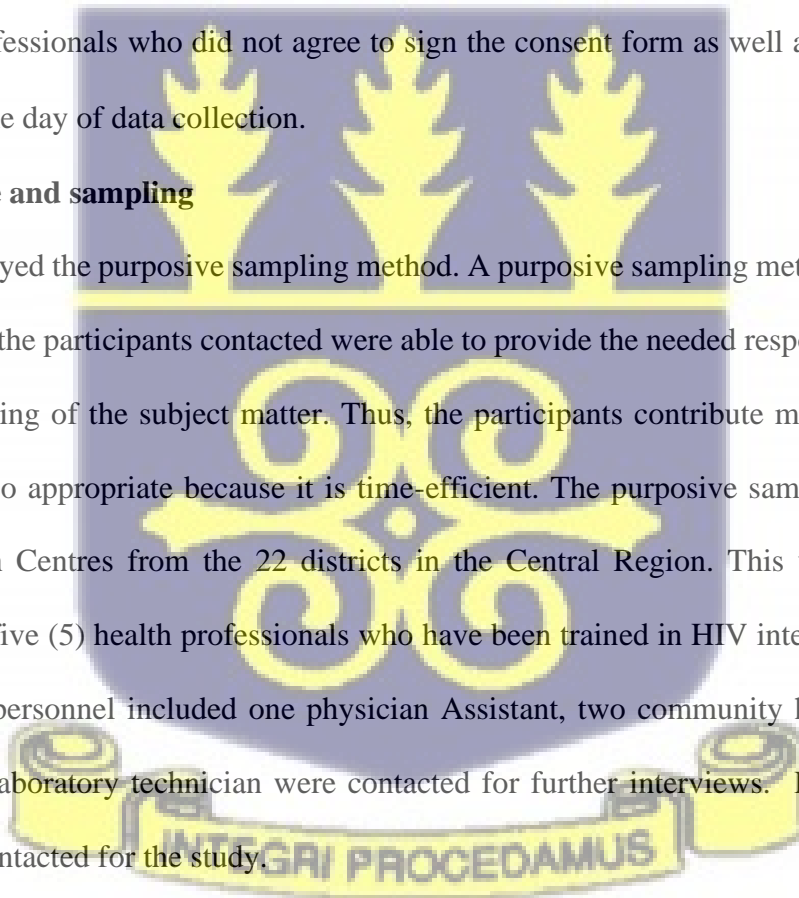
3.4.2 Exclusion criteria

The exclusion criteria were

- i. All health professionals who did not agree to sign the consent form as well as those who were not present on the day of data collection.

3.5 Sample size and sampling

The study employed the purposive sampling method. A purposive sampling method is an intuitive approach where the participants contacted were able to provide the needed responses that enabled clear understanding of the subject matter. Thus, the participants contribute meaningfully to the study. It was also appropriate because it is time-efficient. The purposive sampling was used to select 10 Health Centres from the 22 districts in the Central Region. This was based on the presence of the five (5) health professionals who have been trained in HIV intervention services. These 5 health personnel included one physician Assistant, two community health nurses, one midwife and a laboratory technician were contacted for further interviews. In total, 50 health workers were contacted for the study.



3.6 Data collection instrument

The study made use of the interview guide which was conducted that helped gather data from the participants and performed document reviews on HIV/AIDS statistics from the selected health facilities. The interview guide involved questions that are usually open-ended revolving around the objectives of the study. The interview guide helped to ask and obtain detailed information about the experiences and the views of the participants. The interview guide was structured into sections such that the first section consisted of participants' demographics while the second section covered questions on whether HIV/AIDS training guidelines are being followed by the health worker. Subsequently, the third to sixth sections had questions on the number of cases of infections recorded, cases put on treatment, viral load cases recorded and the barriers that militate against the integration of HIV/AIDS services into the routine health service activities. In addition to using the interview guide, recorders were made available to aid data collection.

3.7 Data collection approach

An introductory letter was sent to the Central Regional Health Directorate of the Ghana Health Service before the data collection, to seek permission to conduct the study in the region. The approval introductory letter was duplicated and distributed to the various selected Business Marketing Centre (BMC) management to seek their permission for the data collection. While the distribution of the letters was ongoing, research assistants were employed to help in the data collection. The research assistants underwent training to help in the data collection. On the day of data collection, all data collectors were equipped with recorders to aid data collection. The study was conducted for fifteen (15) participant using in-depth interviews (IDIs), three (3) sections of focus group discussions (FGDs) was organized with an average number of eleven participants and performing document reviews concerning the 90-90-90 targets principles. An appropriate time for

data collection was determined between the researcher and the participant. The purpose, as well as the norms (the use of audio recorders during the data collection period) of the study, was explained to the participants on the day of data collection. The recorders were used to record interview sessions so that it can be effectively transcribed for data analysis. Furthermore, the study employed the face-to-face interview format to conduct in-depth interviews. The IDIs were conducted during the participant's free period so that it would not interrupt with their working schedules. Furthermore, depending on the responses of the participants, it is estimated that the interview will not go beyond

40 and 60 minutes for the in-depth interview and focus group discussions respectively. Since there are 10 district and 10 Health Centres involved, the in-depth interviews will take 10 days, thus interviews will be conducted each day for the selected districts. Meanwhile, the focused group discussion will be held every other day with the individual groups involving the physician assistants, midwives, two community health nurses and the laboratory technicians thus a total of five (5) FGDs will be held. Furthermore, another five (5) days will be scheduled to conduct the document review sessions for the selected Health Centres thus two sessions will be done concurrently. Hence, the data collection process is anticipated to last for at most four (4) weeks to make up for any interruptions such as rainfall.

3.8 Quality control

To obtain quality data, field research assistants were hired and taken through a two-day training session. The training comprised guidelines including the laid down principles governing the use of the interview guide and how questions should be asked and the data collection procedure. Since the study took place in the Central Region, the training session was also done using the Central Region dialect. Furthermore, pre-testing was conducted to assess for instrumentation rigor and

formulate measures to address any limitations confronted before carrying out the main study. Additionally, during the data collection, the principal investigator periodically visited the data collection sites to monitor the processes and progress.

3.9 Data analysis procedure

The participants were identified using a numbering system to prevent double identification (Participant 1, 2, 3, 4, 5). The recorded interviews on the recorders were transcribed verbatim to allow for thematic analysis to be used to analyse the in-depth interviews. Thus, the researcher generated common themes that were used for the analysis by assigning preliminary codes that were transcribed data to describe the themes. This was followed by the search for patterns within the codes across the different interviews from the participants. The themes were reviewed to ensure accuracy in the themes by doing comparisons with the data set. Accurate themes were defined and named and then a write-up was done to produce a report. The report consisted of an introduction to establish the research questions and approach and how data was collected. Additionally, the report includes results that will address the themes in turns, then a conclusion was written to complete the report. Secondly, tabular presentations of document reviews were done to complete the analysis section of the study.

3.10 Data management

All transcribed data was put into a folder and copied onto a flash drive. The flash drive coupled with the data instrument (recorders) and consent forms were handed to the department of Health Policy Planning and Management (HPPM) of School of Public Health, University of Ghana, where they will be kept under lock and key.

3.11 Data storage and usage

The data gathered from the hospitals will be kept under the care of the supervisor. The instrument (recorders) used for the data collection and analysis will be under lock and key. The data collected will be stored on a CD and pen drive and will be kept in the office of the supervisor for future reference.

3.12 Ethical approval

3.12.1 Ghana Health Services ethical approval

An introductory letter from the School of Public Health will be taken to the Ghana Health Service Review Committee, the National AIDS Commission (NAC), Central Regional Health Directorate and the District health Directorates selected for ethical approval towards the commencement of the data collection. This approach is to ensure that the laid down principles are allowed as well as protocols duly observed.

3.12.2 Approval for clearance to conduct the study

A copy of the introductory letter from the School of Public Health and the ethically approved letters from Ghana Health Service was sent to the Central Regional Health Directorate, Ghana AIDS Commission, Municipal Health Directorate and sub-district head of each selected Health Centre for the study for permission to begin data collection.

3.12.3 Informed consent from individual healthcare staff

Before the respondents took part in the study, the purpose of the study was explained such that their willingness to participate was established. They were also given the right to withdraw in the course of the study should they feel uncomfortable providing answers to the questions being asked.

From there a written consent which specifies their willingness to participate was given to them to sign or thumbprint.

3.12.4 Potential risks/Benefits compensation

The study was done without any risk involved; hence, participants were assured of risk-free research work, the social distancing of 2metres, face mask and hand washing were ensured to prevent the spread of COVID 19. Furthermore, there was no monetary compensation; however, participants were thanked and refreshed for participating in the study.

3.12.5 Privacy/Confidentiality

The rights of the healthcare workers were explained as well as an assurance of confidentiality and anonymity were made known to them. Thus, their names were not be associated with the answers or mentioned anywhere. Hence, their personal information (names) were excluded from the interview guide used.



CHAPTER FOUR

RESULTS

4.1 Introduction

The fourth chapter provides an analysis of data collected from the field. The results have been presented concerning the number of HIV/AIDS cases screened at the selected Health Centres in the Central Region, the number of HIV/AIDS cases put on treatment at the selected Health Centres in the Central Region, the number of HIV/AIDS viral load cases reduction at the selected Health Centre in the Central Region and whether health workers follow the HIV/AIDS training guidelines at the selected Health Centres in the Central Region.

4.2 Demographic characteristics

The results indicated that the majority of the participants were females (64%) with the remaining being males (36%). The participants had been working between 2 months and 10 years as health workers. Furthermore, the participants working at the Reproductive and Child Health Unit (RCH) were 20 (40%), Maternity Unit were 10 (20%), Laboratory personnel were 10(20%) and Outpatient Department were 10 (20%).

4.3 The Number of HIV/AIDS cases screened at the selected Health Centres in the Central Region

The human immunodeficiency virus is detected through several screening processes provided at Health Centres with HIV counselling and testing sites. From the findings of this study, it was indicated that an average number of 12250 patients were screened with regards to HIV/AIDS in the Health Centres. This was noted when two participants stated:

4.4 The Number of HIV and AIDS cases put on treatment at the selected Health Centres in the Central Region

Generally, people diagnosed with HIV/AIDS are treated with antiretroviral therapy treatment (ART). This treatment is utilized for sustained virologic suppression of the virus. Thus, it is essential that individuals diagnosed with HIV/AIDS are placed under treatment in Health Centres. The findings of this study indicated that between 22 and 32 people were under treatment in the Health Centres. This is indicated when four participant states:

"Currently, we have 22 active cases" [Participants 4,7,15 20]

Other participants explain:

"Those who are under treatment are 32" [Participants 11, 13, 16]

4.5 The Number of HIV/AIDS viral load cases reduction at the selected Health Centres in the Central Region

The treatment of HIV/AIDS with antiretroviral therapy treatment is utilized to achieve a virologic goal of reducing the viral load for the longest possible time. Thus, Health Centres examine the reduction of viral load cases in patients to determine the effectiveness of the medication with individual patients. The results presented indicate that samples of blood have been taken to Cape Coast Teaching Hospital but the results have to be submitted to the Health Centres and between and 1 and 5 patients had a reduction of viral load cases at the Health Centres. This is suggested when one participant asserts:

"The viral load we've sent some samples but we've not received results yet, but so far about five people." [Participant 4] "One case I think" [Participant 11]

"Samples have been taken but results are not yet inn" [Participants 2, 4, 5, 13, 16]

4.6 Whether health workers follow the HIV/AIDS training guidelines at the selected Health Centres in the Central Region

The enhancement of testing and treatment of HIV/AIDS requires that health workers are taken through training to manage cases reported to health facilities. Nonetheless, following training health workers must follow the guidelines provided at their Health Centre. The results of the study led to the generation of themes that indicated that health workers comply with guidelines and fail to comply with guidelines. Also, the minor themes revealed that health workers always comply, sometimes fail to comply in emergency cases and special cases.

Table 4.1: Themes on whether health workers follow the HIV/AIDS training guidelines at the selected Health Centres in the Central Region

Question	Major theme	Minor theme
Whether health workers follow the HIV/AIDS training guidelines at the selected Health Centres in the Central Region	Comply with guidelines	Always comply Sometimes comply
	Fail to comply	Emergency cases Special cases

A. Comply with guidelines

The study indicates that a significant number of health workers follow the HIV/AIDS training guidelines in their Health Centres. This is suggested when the participants indicate: *"Yes, when we come, we check their vitals, they go to the top, from there they go to the lab to be screened and*

thereafter they come back, if there is any condition, then we treat and then we give them medication, they go to the dispensary and take their medications." [Participant 10]

Additionally, participant 6 states:

"Yes, we have. From testing, you come to pre-counseling. We have three types of counseling. We have pre-counseling, then you go and come one week then, after one week you come for adherence counseling. That is what we do here" [Participant 6]

i. Always comply

The responses of some participants indicate that they always comply with the standard guidelines.

This is indicated when one participant explains:

"Of course, we always apply standard procedures" [Participant 1]

Another participant buttresses this by stating:

"Yes, their vitals are checked, meaning their weight, temperature, their BP, yes...and afterwards then according to the person's illness we will provide the care." [Participant 3]

ii. Sometimes comply

The participants indicated that they usually comply with the standard guidelines. However, on some occasions, they are unable to comply with all the guidelines. This is suggested by participant 6 and participant 5 when they state:

"Hmmm...we try as much as possible to follow the guidelines but on days where a lot of patients are waiting, we can't follow all of the guidelines" [Participant 5]

"I think so but from time to time we are not able to apply all the guidelines" [Participant 6]

B. Fail to comply

The responses suggest that although some participants were able to comply with the health guidelines concerning patients with HIV/AIDS, others were unable to comply. This is indicated when one participant explains:

"No, it's difficult to follow the standards always [Participant 10]"

Additionally, participant 10 states:

"No, I don't think it's possible to use all the procedures"

i. Emergency cases

Health workers are unable to comply with health guidelines due to emergency cases that are brought to the Health Centres. This is indicated when participant 4 asserts:

"Not always, if it is an emergency, there are some steps that we overlook" [Participant 4]"

Another participant buttresses this point by explaining:

"Depending on the condition of the patient, if the patient comes with an emergency case, we can't go through that same procedure. We just have to admit the person and treat before the other procedures"[Participant 10]"

ii. Special cases

The study also reveals that health workers are unable to comply with health guidelines when there are special cases that require special procedures instead of the standard procedures that exist. This is noted when Participant 11 explains:

"No, because it's not all of them that are on special treatment. We will treat those on special treatment differently. Something like emergency and HIV cases they don't pass through the usual point"[Participant 11]"

Another participant goes further to state:

"No, it changes. So if there are suspected cases, they go into a separate procedure so they go for further investigations. All others follow their routine processes" [Participant 9]

4.7 Whether health workers experience challenges with HIV/AIDS service delivery

Almost all the participants indicated that there are challenges rendering HIV/AIDS services at the various Health Centres.

About 34(68%) of the respondents indicated that they lack space to offer the services required:

"The space given to us to offer such services is not of standard: it lacks space, confidentiality and security."

Others of about 6(12%) respondents said they are suffering staff attrition since almost all trained health personnel have been posted to different places:

"We have not enough staff to take care of HIV/AIDS services since almost all of our staffs that were trained has been transferred to other districts and facilities, it really makes the work very difficult [participants 4, 9,12,18,19 and 21]"

Participants 1,2,10 stated that there are at times shortage of logistics such as test kits, and drugs for carrying out the service delivery.

Participants 11, 14, 22, 29, 35 indicated that they suffer some form of stigmatisation by other staffs since they tell them:

"your people are in ooo and you went for the training and enjoyed the training benefits alone."

4.8 Factors facilitating implementation of HIV/AIDS services

About eighteen participants (36%) admitted, their health facility helps with the sponsoring of the transportation bills to the Regional Medical Store to collect ART drugs, test kits and registers from their internally generated funds (IGF):

“My facility Head asks me to see the accounts officer for TNT to Cape Coast Regional Medical Stores to collect Anti-retroviral, Test Kits, and Registers when they are getting finished”

Twenty-five ((50%) of the service providers said most of people who are so sick, when placed on treatment do so well so they become motivated and happy to offer services to clients in need:

Most of them become stronger than before, looks very fit, well-kept and nicely dressed, you might not recognize them when they are doing well on their medications.

Ten (20%) admitted the number of cases seen at their facilities has increased after adding unit offering HIV/AIDS services since facilities who do not offer HIV/AIDS services refer:

“We see referral cases from the surrounding villages when they are tested positive, Clients who stay closer to our facility and are on drugs from far to reach facility are getting transfers to our facility”

Fifteen (30%) of the participants appreciated to the fact that they can also manage PLHIV on first line at the peripheral level and refer when needed to the higher level due to the training they have received:

“Oh yes we are able to confirm HIV/AIDS right at this place, counsel the clients, do basics laboratory test and start treatment as early as possible without referrals. We refer only if client is not responding to the first medications we gave”



CHAPTER FIVE

DISCUSSION

5.1 Introduction

This chapter covers an interpretation and the significance of the results. Also, the chapter presents the results concerning the literature covered in this study. The discussion is presented under the objectives of the research.

5.2 The Number of HIV/AIDS Cases Screened at the Selected Health Centres in the Central Region

HIV counselling and testing (HCT) and the prevention of mother-to-child transmission (PMTCT) programs are crucial global HIV initiatives which have been integrated into health systems by international health organisations (Asianyabola et al., 2016). This enables a greater number of people to be screened at Health Centres. The findings indicated that an average number of 250 participants were screened with regards to HIV/AIDS in the Health Centres. The current study appears to be similar with the study by Khongonyawa et al. (2018) who indicated that a total of 25,572 adults and children from families living with HIV were tested. Also, a study carried out by Katbi (2017) indicated that 1277 persons were screened in seven local government areas in Nigeria. Thus, it can be implied that the number of HIV/AIDS cases screened vary according to the location. However, records on viral load, diagnosis and laboratory testing services are not adequately maintained among some screening Centres (Addo et al., 2018). Thus, the number of people screened in a given location must be appropriately recorded to accurately assess the number of HIV/AIDS cases. Again, another study which corresponds to the current study result is by Deribrew et al. (2018) which revealed that screening services provided in about 5% of private hospitals.

5.3 The Number of HIV/AIDS cases put on treatment at the Selected Health Centres in the Central Region.

Ninety percent of all diagnosed with HIV/AIDS are treated with the antiretroviral (ART) therapy treatment (ART) to reduce viral loads (UNAIDS, 2014). Moreover, the effective use of ART increases the length and quality of life of people living with HIV and reduces the transmission of the virus (Gilks et al., 2006). This study reveals that the number of HIV/AIDS cases placed on treatment were between 22 and 32 people in the Health Centres. Similarly, Kahungu et al. (2018) stated that out of 493 exposed persons, 32 were detected as HIV positive and placed under antiretroviral treatment. Diagnosed cases of HIV/AIDS must be automatically placed under treatment sessions to prevent the development of drug resistance, prolong, preserve and enhance the quality of life (Lohse et al., 2007). Thus, treatment is required for each person diagnosed with HIV/AIDS for quality of life. However, this study indicated that out of about 12,250 people screened, only between 22 and 32 availed themselves for treatment even though the number of HIV/AIDS positive cases were high. This indicates that fewer people are being treated as compared to the number that tested positive when screened.

5.4 The Number of HIV/AIDS Viral Load Cases Reduction at the Selected Health Centre in the Central Region

The UNAIDS Programme Coordinating Board developed 90-90-90 seeks to facilitate 90% of people under ART treatment to have reduced viral loads by the end of 2020 (UNAIDS, 2014). The reduction of viral load suggests a decrease of viral particles which indicates that ART treatment is effective whilst a high viral load indicates that the ART treatment has not been taken properly or that viral particles have become resistant to the medication (Keiser et al., 2011). The results presented indicate that between 1 and 5 patients had a reduction of viral load without laboratory

results at the health Centre level. This indicates a low number of people with reduced viral loads. Thus, it can be suggested that ART treatment was not carried out effectively. Similarly, Charlebois et al. (2011) examined the effect of expanded antiretroviral treatment strategies on the HIV/AIDS epidemic among homosexuals in San Francisco. The results indicated that there was a reduction of viral load among patients. However, a specific number was not recorded. Furthermore, Miller et al. (2015) indicate that community viral load where the viral load of infected persons are aggregated serves as a measure of assessing HIV treatment. Therefore, the availability of numbers concerning HIV/AIDS treatment facilitates the assessment of HIV treatment.

5.5 Whether Health Workers Follow the HIV/AIDS Training Guidelines at the Selected Health Centres in the Central Region

The World Health organisation presented guidelines to improve and ensure massive effective testing in response to attaining the 90-90-90 target (WHO, 2015). Thus, this study sought to establish whether health workers follow the HIV/AIDS training guidelines. The results indicated that health workers follow the HIV/AIDS training guidelines in their Health Centres and fail to comply with the guidelines other times. However, a study conducted by Asianyabola et al. (2016) assessed the HIV counselling and testing services provided for pregnant women in Ibadan, Nigeria.

It was indicated that health facilities did not adhere to the guidelines for the counselling process. Also, Mwangome et al. (2017) indicated that out of five (5) health facilities in which 23 personnel including health workers, regional and district health coordinators were interviewed, none of the five health facilities had the HTC national guideline and in other cases underused the health guideline in South Tanzania. The guidelines presented by the UNAIDS Programme Coordinating Board seek to meet 90% of each of the HIV/AIDS targets of aiding People Living with HIV

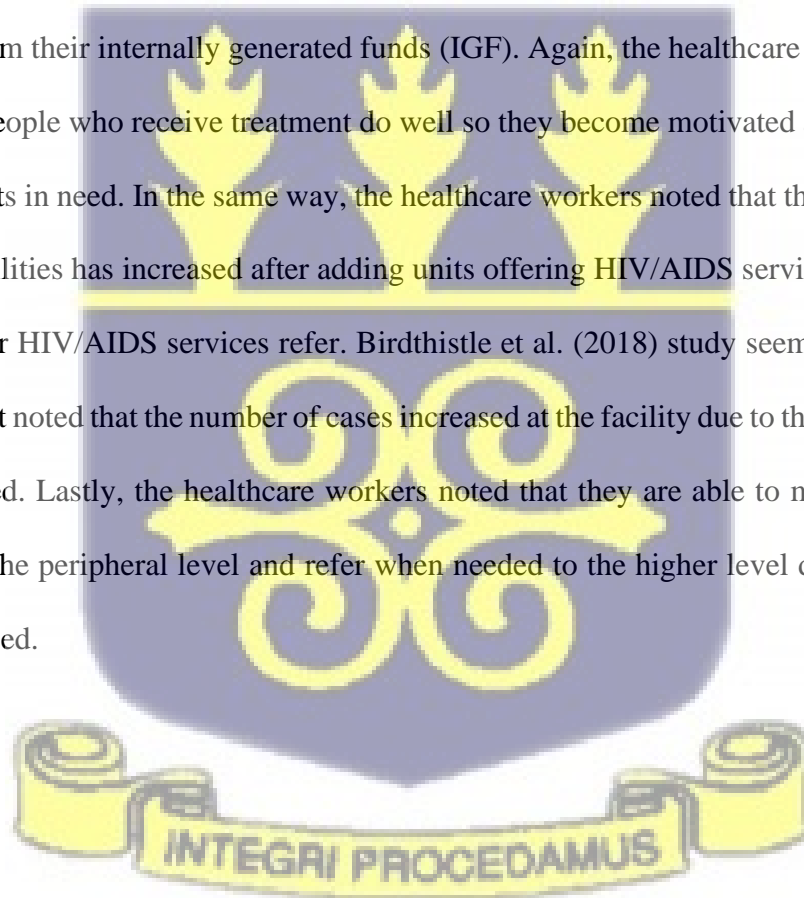
(PLHIV) knowing their status, diagnosing PLHIV being on the antiretroviral therapy treatment and PLHIV on treatment attaining a sustained virologic suppression (Jamison & Kellerman, 2016). Thus, the ability of health workers to follow the guidelines facilitates the achievement of the targets, however, failure to adhere to the guidelines hinders the achievement of the targets. HIV/AIDS infection is a pandemic posing a global burden causing so many people losing their life, becoming infected with many opportunistic infections, losing their jobs and livelihood, losing friends and family members as a result of stigmatisation. Many more researches will have to be encouraged in order to achieve more detailed facts and approaches at different levels of health services provision so that the fight will be much more holistic and effective against the pandemic. This research made known of some achievements and gaps found in the selected Health Centres in the Central Region of Ghana.

5.6 Barriers and Facilitators that Militate Against the Integration of HIV/AIDS Services into Routine Health Services

The Centres for Disease Control and Prevention (CDC) has recommended voluntary and routine HIV testing for all persons across all health Centres across the globe (Johnson et al., 2011). However, in the quest to ensure implementation of these recommendations, healthcare workers experience some barriers and facilitators in the service delivery. Thus, the results of the study revealed that the healthcare workers lacked space to offer the services required for the integration of HIV/AIDS into routine health services. Additionally, the study revealed that another barrier to the integration of HIV/AIDS services was that the healthcare workers suffered staff attrition as almost all trained health personnel have been posted to different places. Likewise, the healthcare workers noted that shortage of logistics such as test kits, and drugs for carrying out the service delivery as a barrier against the integration of HIV/AIDS services. Results of Mwangome et al.

(2017) match up with these current study results as it revealed that the health facilities lacked trained staff as well as supplies like test kits and medication and this affected the integration of HIV/AIDS services. Similarly, the healthcare workers indicated that they suffered some form of stigmatisation by other staff. The findings by Dapaah and Senah (2016) support the current study as it disclosed that people are labelled or suspected to be HIV/AIDS infected persons once they are sighted at the HIV Counselling centre demonstrating some sort of stigmatisation.

Furthermore, the study identified some facilitators in the implementation of HIV/AIDS services. This was evident as most of the healthcare workers noted that their health facility helps with the sponsoring of the transportation bills to the Regional Medical Store to collect ART drugs, test kits and registers from their internally generated funds (IGF). Again, the healthcare workers indicated that most sick people who receive treatment do well so they become motivated and happy to offer services to clients in need. In the same way, the healthcare workers noted that the number of cases seen at their facilities has increased after adding units offering HIV/AIDS services since facilities who do not offer HIV/AIDS services refer. Birdthistle et al. (2018) study seems similar with the study results as it noted that the number of cases increased at the facility due to the HIV counselling services provided. Lastly, the healthcare workers noted that they are able to manage PLHIV on the first line at the peripheral level and refer when needed to the higher level due to the training they have received.



5.7 Study limitations

The Covid-19 restrictions and protocols made movement and interactions quite challenging. There were long hours of travel and it was hard to reach the Health Centre. Long hours of waiting for staff that were not present at the facilities for their turn.



CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATION

6.1 Introduction

The sixth chapter involves the presentation of the summary, conclusion and recommendations of the research. The summary provides a brief overview of the entire research, the conclusion presents the primary deductions of the study whilst the recommendations indicate specific measures based on the results of the study.

6.2 Summary

The primary objective of this research was to assess the integrations of HIV/AIDS services into routine services at Health Centres in the Central Region. Furthermore, the study sought to examine the number of HIV/AIDS cases screened at the selected Health Centres in the Central Region, the number of HIV/AIDS cases put on treatment at the selected Health Centres in the Central Region, the number of HIV/AIDS viral load cases reduction at the selected Health Centres in the Central Region, whether health workers follow the HIV/AIDS training guidelines at the selected Health Centres in the Central Region and the barriers and facilitators that militate against the inclusion of HIV/AIDS services into routine services at Health Centres.

Again, the study utilised the qualitative approach and case study design. Again, the study used all Health Centres that offer HIV/AIDS services in the Central Region as the target population. The study utilised 50 health workers as the sample for the study. The participants of the study made use of focus group discussions and in-depth interviews for data collection. Following this, data analysis was conducted using thematic analysis.

The results of the analysis indicated that an average number of 12,250 patients were screened with regards to HIV/AIDS in the Health Centres. Also, the findings of this study indicated that between

22 and 32 people were under treatment in the Health Centres. Additionally, the results indicated that between 1 and 5 patients had a reduction of viral load cases at the hospital. The results also suggested that health workers comply with guidelines and fail to comply with guidelines. This was further buttressed by minor themes that indicate that health workers always comply, sometimes comply, and fail to comply in emergency cases and special cases. The study revealed that health workers encounter challenges such as space, lack of logistics, staff attrition and stigmatisation from other health workers at the same health facilities.

6.3 Conclusion

The study concluded that an average number of 250 patients were screened with regards to HIV/AIDS in the Health Centres in the Central Region. Likewise, the study concluded that between 22 and 32 HIV/AIDS cases were put on treatment at the selected Health Centres in the Central Region.

Furthermore, the study concluded that between 1 and 5 patients had a reduction of viral load cases at the Health Centres without laboratory results. Thus, the study identified issues such as lack of space to operationalise the HIV/AIDS fully, staff attrition, trained staff suffering stigmatisation, lack of logistics and delay in viral load results at the various Health Centres in the Central Region. Additionally, the study concluded that health workers somewhat comply with guidelines and also fail to comply with guidelines in some situations.

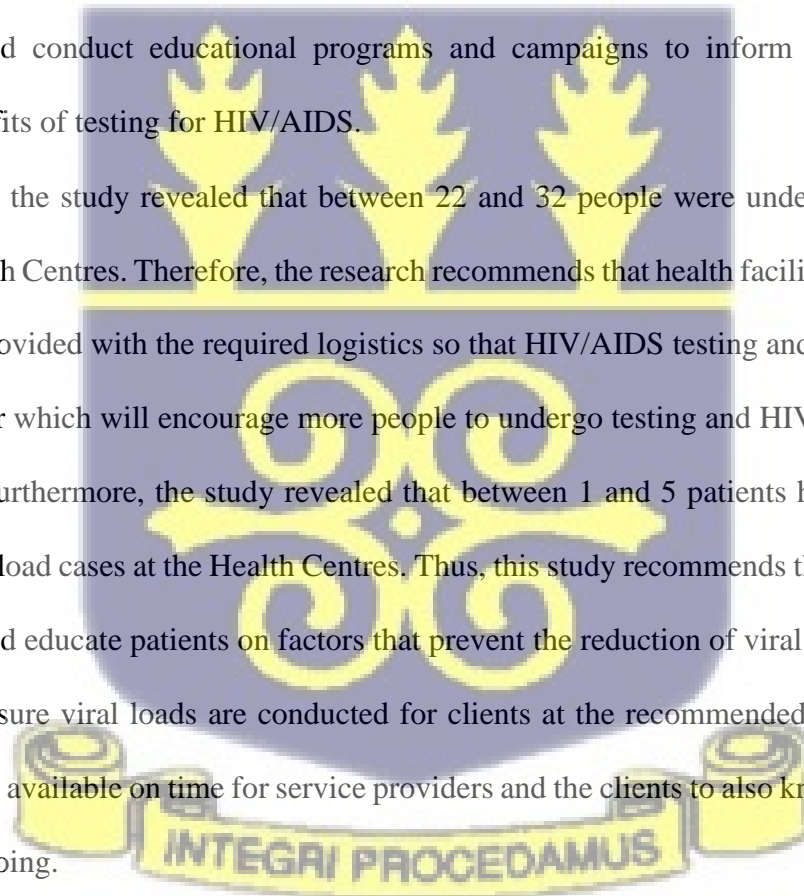
Finally, the study concluded that inadequate space, staff attrition, shortage of logistics such as test kits, and drugs for carrying out the service delivery and stigmatisation by other staff were the barriers to the implementation of HIV/AIDS services. Likewise, the facilitators for implementation of HIV/AIDS services included sponsoring of the transportation bills to the Regional Medical Store to collect ART drugs, test kits and registers from their internally generated

funds (IGF) by the health facility, offering services to clients in need by most recovered HIV patients who received treatment, increase number of cases at their facilities by some referred facilities who do not offer such services, and ability to manage PLHIV on the first line at the peripheral level and refer when needed to the higher level due to the training they have received.

6.4 Recommendations

The following recommendations have been developed based on the results of the research:

- i. The study revealed that an average number of 250 patients were screened with regards to HIV/AIDS in the Health Centres. Thus, the research recommends that health workers should conduct educational programs and campaigns to inform people about the benefits of testing for HIV/AIDS.
- ii. Also, the study revealed that between 22 and 32 people were under treatment in the Health Centres. Therefore, the research recommends that health facilities should always be provided with the required logistics so that HIV/AIDS testing and treatment will be easier which will encourage more people to undergo testing and HIV/AIDS treatment.
- iii. Furthermore, the study revealed that between 1 and 5 patients had a reduction of viral load cases at the Health Centres. Thus, this study recommends that health workers should educate patients on factors that prevent the reduction of viral load and the need to ensure viral loads are conducted for clients at the recommended time with results made available on time for service providers and the clients to also know how well they are doing.
- iv. The study revealed that health workers comply with guidelines and also fail to comply with guidelines in some situations. Thus, this study recommends that health workers



should adopt strategies that can be utilised in special circumstances to decrease noncompliance with the health guidelines

- v. The study recommends that further studies should examine the integration of HIV/AIDS services into routine services at Health Centres in other regions of Ghana.
- vi. Lastly, challenges at the Health Centres such as staff attrition should be addressed since trained personnel should be encouraged to train others, there should be a space created for HIV/AIDS services, staffs should be made to involve in HIV/AIDS services and be well informed so that people providing the services will not be stigmatised.



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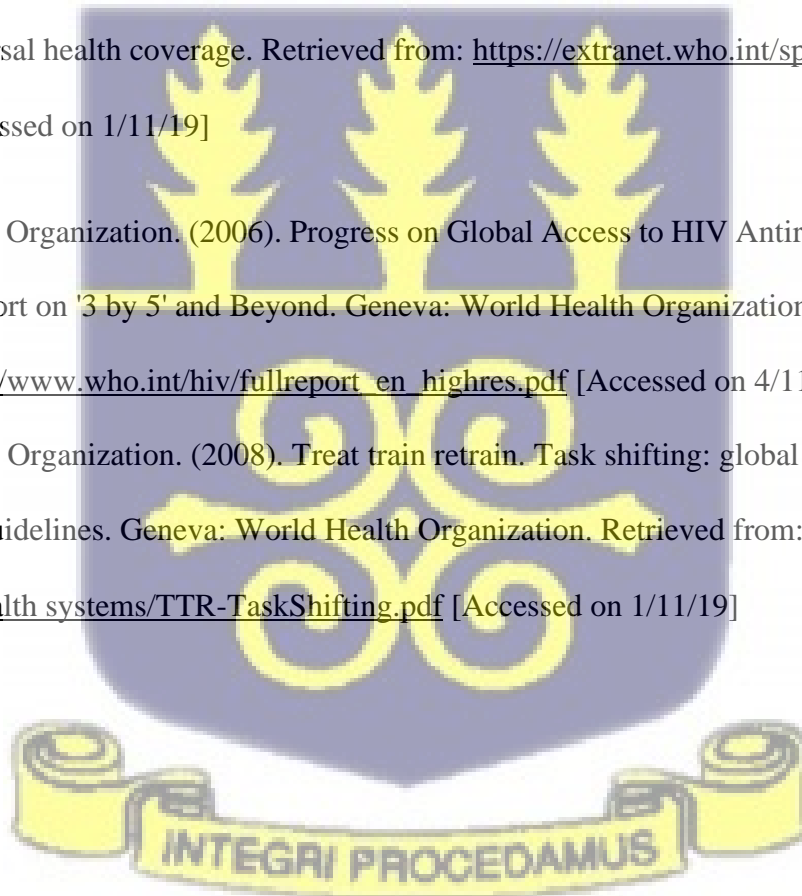
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APPENDIX A: INFORMATION SHEET

Title of Proposal: Assessing the barriers and facilitators of HIV/AIDS service integration into routine service at Health Centres in Central Region.

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General Information about Research

The objective of the research is to assess the barriers and facilitators of HIV/AIDS service integration into routine services at Health Centres in Central Region. As part of the objectives, this study seeks to determine the number of HIV/AIDS cases screened at selected health Centre in Central Region, the study also seeks to determine the number of HIV/AIDS cases under treatment at the selected Health Centres and also to know the number of service providers that follow the HIV/AIDS training guidelines and lastly to determine the number of viral load case reduction at the selected Health Centres. The right to withdraw from this research anytime is reserved, it is purely for academic purpose and your total participation is much appreciated and valued. A structured interview guide will be used to obtain data and your expected participation will last for at least 15 minutes. You are respectively expected to provide vital and adequate response which will help in achieving the objective of the study. In order to be sure that you are informed about being in this research, you are to read this consent form carefully.

Participants were informed that their participation and information provided will go in a long way to engage the interest of policy makers and other stakeholders to ensure that services of HIV/AIDS integration into routine services at Health Centres becomes very successful one.

Possible Risks and Discomforts

Risks of COVID 19 infection due to pandemic will be present but all safety protocols will be adhered and principles followed. The risk of breaking confidentiality during recording will be prevented since the recording will be under lock and keyed by only my supervisor.

Possible Benefits

Participating in this study would help you and the Health Centres offering HIV/AIDS know the barriers and facilitators of HIV/AIDS services and may be able to use findings of this study to improve on the HIV/AIDS services at the Health Centres in Central Region.

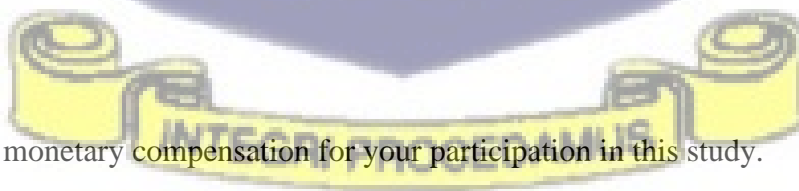
Confidentiality

All information given would be treated with the utmost level of confidentiality.

Every response from interview guide will be kept anonymous such that no one gets access to it. Your real identity will not be disclosed to anyone and any other information given by you will be kept safely under lock and made only accessible to my supervisor. One other measure that will be used to ensure confidentiality are assigning codes names/ numbers for participants.

Compensation

There will be no monetary compensation for your participation in this study.



Voluntary Participation and Right to Leave the Research

Your participation in this research is voluntary and you have the right to withdraw from the Study at any point in time.

Your rights as a Participant

This research will be reviewed and approved by the Ghana Health Service Ethical Review

Committee. If you have any questions about your rights as a research participant, you can contact

Nana Abena Kwaa-Ansah Apatu, Administrator, and Ghana Health Service Ethics Review

Committee on Tel. 0302681109/0503539896

Contacts for Additional Information

You have the right to contact the following in case you have any question.

David Asare Amankwah School of Public Health.

University of Ghana, Legon. Accra

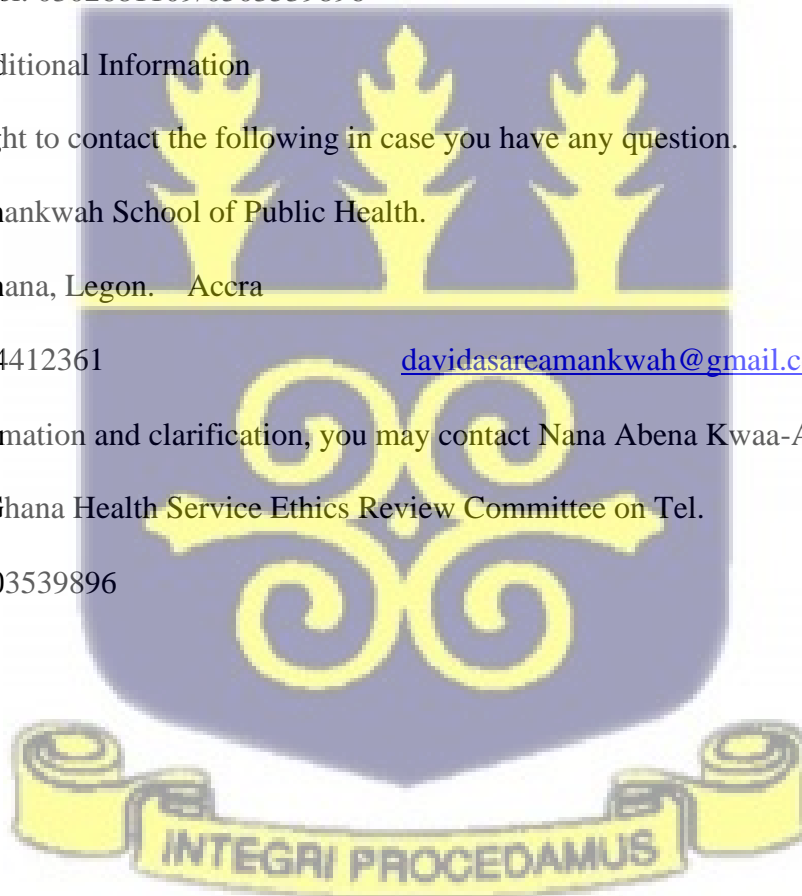
Ghana. Tel: 0244412361

davidasareamankwah@gmail.com

For further information and clarification, you may contact Nana Abena Kwaa-Ansah Apatu,

Administrator, Ghana Health Service Ethics Review Committee on Tel.

0302681109/0503539896



APPENDIX B: CONSENT FORM FOR PARTICIPANTS

VOLUNTARY PARTICIPATION

I acknowledge that I have read the information given above, and I understand. I have been given a chance to ask questions concerning this study and questions have been answered to my satisfaction in a language that I clearly understand. I now voluntarily agree to participate in this study knowing that I have the right to withdraw at any time without it affecting my current or future use of health care services. I have been duly informed that copies of the information sheet and consent form will be given me to take home for keeps after I have signed them.

Participants Initials:

Participants Signature: Date:

Investigators signature: Date:

INTERPRETERS' STATEMENT

I, the undersigned, have interpreted this consent to the respondent in English/local language that he/she clearly understands. The purpose of the study, procedures to be followed, as well as the risks and benefits of the study as elaborated on information sheet have also been explained. The participant has fully agreed to participate in the study without any coercion. Name of

Interviewer/translator.....



Signature of Interviewer/translator..... Date.....

STATEMENT OF WITNESS

I, the undersigned, was present as a witness when the benefits, risks and procedures were read and explained to the participant in a language that he/she clearly understands. All questions were answered and the participant agreed to take part in the study, voluntarily. Name of

Witness.....

Signature of Witness..... Date.....

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. Name of Principal

Investigator.....

Signature of Principal Investigator..... 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 to enable the prospective participant make an informed decision to or not to participate in this study.

Researcher's name.....



Signature..... Date.....

APPENDIX C: INTERVIEW GUIDE

The rationale of this interview is to gather first-hand data for the research on 'The Assessment the inclusion of HIV/AIDS services to routine services at Health Centres in the Central Region, the identity of the interviewees will not be revealed in the final report of this research study. If permission is granted the interview will be recorded for the sake of ease and completeness, and proper analysis of the points discussed in later stages. Is there any question before the start of the interview?

Section A: Demography

1. What is your gender?

.....

2. What is your educational qualification?

.....

3. How many years have you been working as a health worker?

.....

4. Which department do you work in?

.....

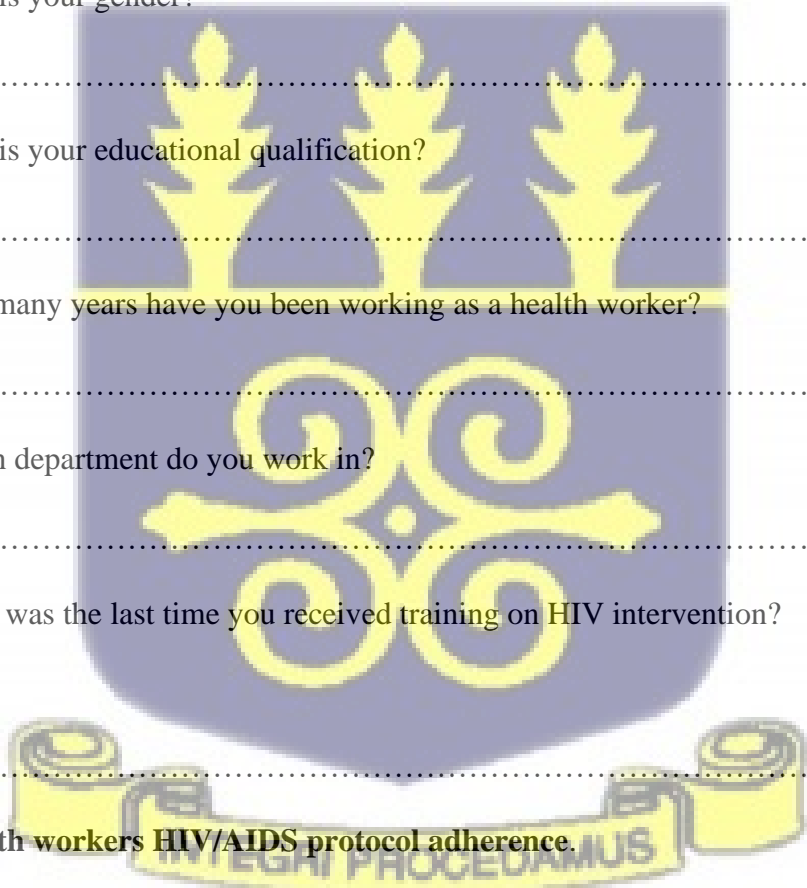
5. When was the last time you received training on HIV intervention?

.....

Section B: Health workers HIV/AIDS protocol adherence.

6. Are there any standard procedures for patients who report to the hospital?

.....



7. What are some of the standard procedures for patients who report to the hospital irrespective of their epidemic?

.....

8. Do you always follow the standard procedures for patients who report to the hospital irrespective of their epidemic?

.....

9. If no, why?

.....

Section C: Number of HIV/AIDS cases screen at selected Health Centres

10. Has there been a decrease or increase in the number of HIV/AIDS cases diagnosed in the facility in recent times?

.....

11. What is the overall number of cases of screened HIV/AIDS cases at the hospital?

.....

Section D: The number of HIV/AIDS cases put on treatment at the selected Health Centres.

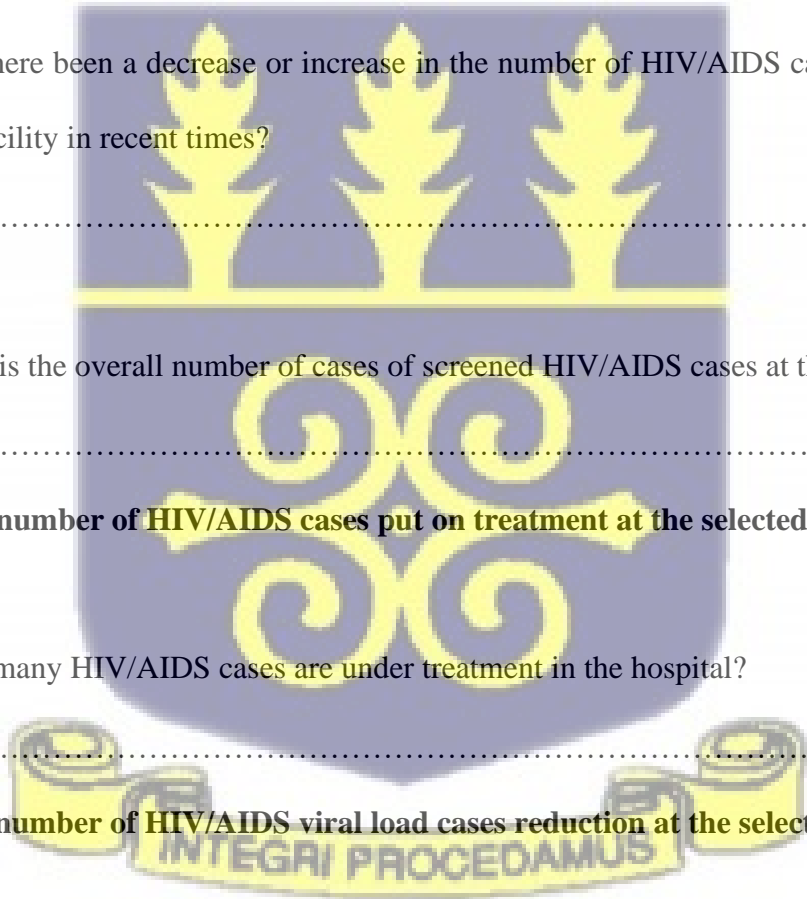
12. How many HIV/AIDS cases are under treatment in the hospital?

.....

Section E: The number of HIV/AIDS viral load cases reduction at the selected Health Centre

13. What is the number of HIV/AIDSs viral load cases in the hospital?

.....



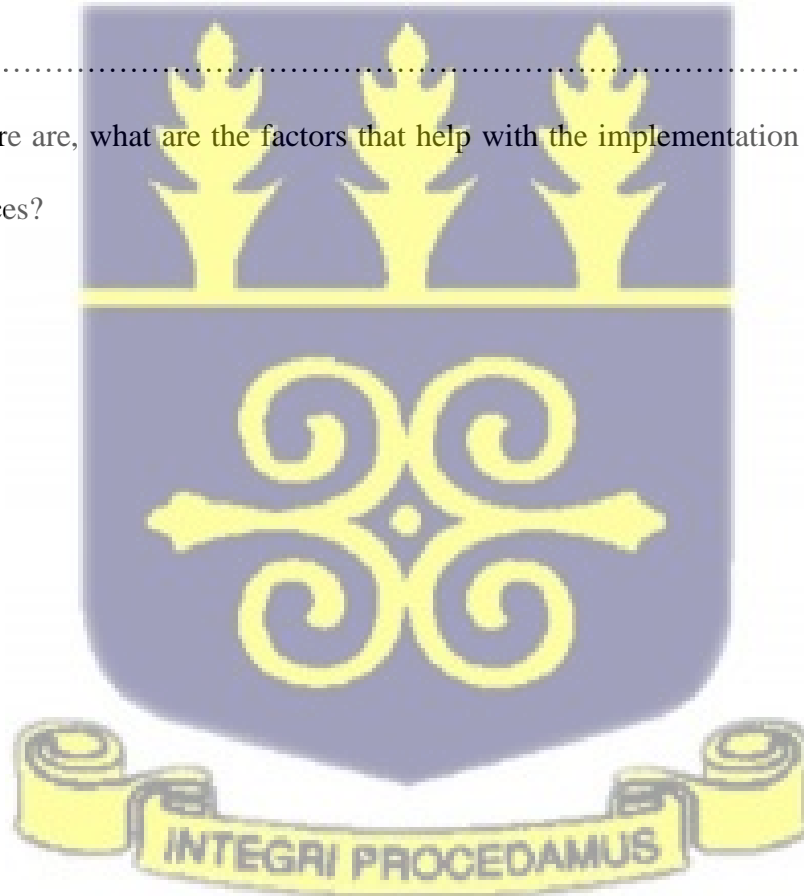
**Section F: The barriers and facilitators that militate against the integration of
HIV/AIDS services into routine services at Health Centres**

14. Are there challenges that hinder the implementation of the HIV/AIDS inclusion in routine health service delivery?
.....

15. If there are, what are some of the challenges that hinder the implementation of the HIV/AIDS inclusion in routine health service delivery?
.....

16. Are there factors that help the provision of HIV/AIDS services run effectively?
.....


17. If there are, what are the factors that help with the implementation of the HIV/AIDS services?
.....



APPENDIX D: ETHICAL APPROVAL CLEARANCE

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
Fax + 233-302-685424
Email: ethics.research@ghs.gov.gh
13th September, 2021

My Ref: GHS/RDD/ERC/Admin/App/31384
Your Ref. No.

David Asare Amankwah
Department of Health Policy, Planning and Management, University of Ghana,
Post Office Box Lg 13, Accra Ghana

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

GHS-ERC Number	GHS-ERC032/06/21
Study Title	Assessing the Barriers and Facilitators of HIV/AIDS Service Integration into Routine Services at Health Centres in Region
Approval Date	13 th September, 2021
Expiry Date	12 th September, 2022
GHS-ERC Decision	Approved

This approval requires the following from the Principal Investigator

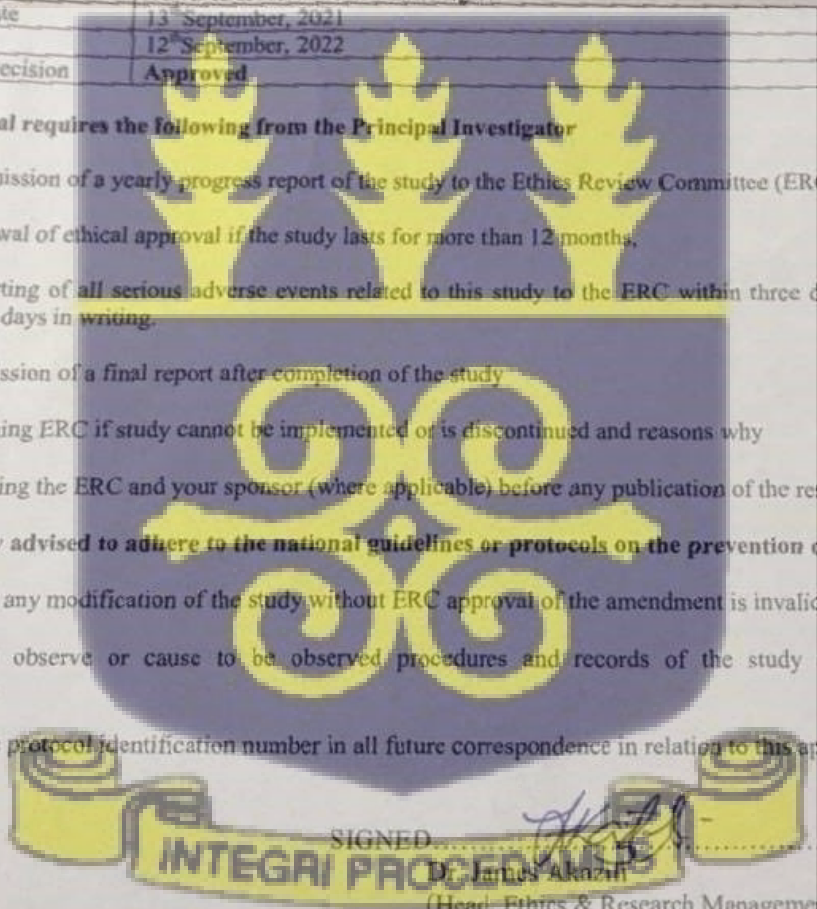
- Submission of a yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months.
- Reporting of all serious adverse events related to this study to the ERC within three days verbally and seven days in writing.
- Submission 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.

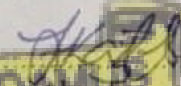
You are kindly advised to adhere to the national guidelines or protocols on the prevention of COVID -19

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: 
D. James Akpan
(Head, Ethics & Research Management Department)

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