UNIVERSITY FOR DEVELOPMENT STUDIES

ASSESSING THE FACTORS INFLUENING ACCESS TO COMPREHENSIVE HEALTHCARE FOR HIV/AIDS PATIENTS IN THE THREE MAJOR PUBLIC HOSPITALS IN THE TAMALE METROPOLIS GHANA

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BY

EBENEZER AGBENYA ADZORMAHE (B.A, Sociology with Geog. & Resource Dev.)

(UDS/CHD/0246/16)

A THESIS SUBMITTED TO THE DEPARTMENT OF PUBLIC HEALTH, SCHOOL OF ALLIED HEALTH SCIENCES, UNIVERSITY FOR DEVELOPMENT STUDIES, IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF PHILOSOPHY DEGREE IN COMMUNITY HEALTH AND DEVELOPMENT

APRIL, 2019

DECLARATION

I, Ebenezer Agbenya Adzormahe, hereby declare that, this thesis is the result of my own original research, under the close supervision of Dr. Evam Kofi Glover, Lecturer at the Department of Behavioral Sciences. All references to other people's works have been duly acknowledged. That, this thesis (part or whole) has not been submitted for any other academic degree in this University or anywhere.

EBENEZER AGBENYA ADZORMAHE SIGNATURE DATE

(STUDENT)

…… …….

SUPERVISOR

I hereby declare that the preparation and presentation of the thesis was supervised in accordance with the guidelines on supervision of thesis laid down by the University for Development Studies.

DR. KOFI EVAM GLOVER SIGNATURE DATE

(SUPERVISOR)

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ABSTRACT

The study was on quality of care of people living with HIV/AIDS (PLWH) and registered under the Tamale Central, Tamale West and Tamale Teaching hospitals in the Tamale Metropolis. The aim of the study was to assess factors influencing access to comprehensive healthcare for HIV patients' in the public Hospitals in the Tamale Metropolis. The study took a descriptive cross-sectional approach with the mixed methods that targeted PLWHA reporting for services between January 27 and February 28, 2018 as the study population. Data were collected through a semi-structured questionnaire utilizing interview approach for patients and key informant interviews with service providers. SPSS version 24 was used for analysis. The results revealed that the main services provided by the three hospitals were, counseling and testing for HIV, management of opportunistic infections and patient support services. Young adults (18-39 years) formed more than half (52.1%) of all HIV patients accessing healthcare at the time of this study and there were more females (82.2%) and half of the respondents had no formal education (50. %). On patients' accessibility to quality HIV services, the overwhelming proportion (92%) did not see distance as a major problem. However majority (63%) of PLWHA think ART has been very beneficial in improving their ability to work in their livelihoods. The general impression of respondents on perceivable quality of service indicators including accessibility to regular CD4 counts and post-exposure prophylaxis) show that the majority of respondents (55%) felt disappointed in relation to comprehensive care at these Centers. Lack of space or structures, privacy, funding, spousal none-disclosure of HIV condition were some of the challenges affecting healthcare at the HIV clinics. In view of these, the study recommends that, the Government and stakeholders should help to properly equip all HIV clinics with all necessary resources to serve the patients more efficiently. More studies are also needed to model best practices for sharing among stakeholders in order to strengthen service provision in the country.

ACKNOWLEDGEMENTS

A number of people contributed to this work, with whose combined efforts and encouragement brought forth this work.

My heartfelt gratitude goes to the Most High God, who gave me the strength, protection, good health and knowledge to sail through this programme.

It's been a very challenging period coming and I am exceptionally grateful to Dr. Evam Kofi Glover, my principal supervisor for his accommodating heart, encouraging me and guiding my path every step of the way. Special appreciation goes to Professor Herbert Dei, Dean of Graduate Studies, University for Development Studies for his fatherly role, Dr. Michael Wombeogo, Head of department of Public Health. I would also like to thank Mr. Akwesi Boakye-Yiadom, my program coordinator for his support and my colleagues in the Community Health and Development program: their comments and criticisms especially during my thesis defence and our graduate (thesis) seminars and field placement were very pivotal in shaping my work.

I am indebted to my Mother and friend, Mamaa Deborah Akubavie-Agbanyo, my daughters, Royal Sedem, & Royal Mamator, Lady Ama Serwaa Antwi, Hon. Ivor Kwabena Greenstreet (2016 Presidential Candidate for CPP), Mr. Sellasi Dzomeku, Lady Joyce Seidu for their guidance, prayers, advice, financial support and encouragement throughout this masters programme endeavor.

My profound gratitude to all my key informants especially the Administrators, Managements, Caregivers and HIV/AIDS patients of the Tamale Central and Tamale West Hospitals. The Chief Executive Officer (CEO), Medical Director, Head of Research Unit, Caregivers and HIV/AIDS patients of the Tamale Teaching Hospital. Let me also thank Heads of Pharmacy and Laboratory of the three medical facilities

for their cooperation. Security Officers of the three facilities were very instrumental to my stay with them. Your encouragements and supports are very much appreciated.

My gratitude respectfully stretched to my resourceful data collectors: Mr. Langah (Northern Regional Secretary of NAP+GH), Mr. Suley Sulemana (Former Northern Regional Chairman of NAP+GH), Rev. Sister Justine Kpodo Avornyo (L400 Nurse Practitioner Student). Baba, Victor and Enoch Mintah, thank you all for the type setting support extended to me towards meeting deadline.

Finally, my humble appreciations to all Senior and Junior members of the Department of Public Health and the School of Allied Health Sciences of the School of Graduate Studies for their support, guidance and advice. I appreciate, learning by experience and mentorship is invaluable. However, may I respectfully, hereby declare that all shortcomings that may be contained in this work are wholly mine. Indeed, it's a new academic experience with the University for Development Studies.

DEDICATION

This thesis is dedicated to my God-brother, Prince Setsofia Sappor, for providing me shelter, financial support, hope and laying my foundation for higher education.

LIST OF ABBREVIATIONS

AIDS: Acquired Immune deficiency syndrome

ANC: Antenatal Care

ART: Anti-Retroviral Therapy

BCC: Behavior Communication Change

CBO: Community Based Organization

CDCP: Centers for Disease Control and Prevention

DNA: Deoxyribonucleic Acid

FSWs: Female Sex Workers

GAC: Ghana AIDS Commission

GHS: Ghana Health Service

GF: Global Fund

GSS: Ghana Statistical Services

HAART: Highly Active Antiretroviral Therapy

HATCS: HIV/AIDS treatment and care services

HIV: Human immunodeficiency virus

HSS: HIV Sentinel Surveillance

LMICs: Low income and Middle-income Countries

M&E: Monitoring and Evaluation

MoH: Ministry of Health

MSM: Men who have sex with Men

NACP: National Aids Control Program

NGO: Non-Governmental Organization

NHIS: National Health Insurance Scheme

OPD: Outpatient Department

PHL: Public Health Laboratory

PIWH: People infected with HIV

PLWHA: Persons Living With HIV/Aids

PMTCT: Pregnant-Mother-to-Child-Treatment program

RCTO: Regional Community Treatment Observatory

RNA: Ribonucleic Acid

SDG: Sustainable Development Goal

SPSS: Statistical Package for Social Sciences

TCH: Tamale Central Hospital

TTH: Tamale Teaching Hospital

TWH: Tamale West Hospital

UDS: University for Development Studies

UN: United Nations

UNAIDS: United Nations Aids

UNFPA: United Nations Population Fund

UNICEF: United Nations Children's Fund

WB: World Bank

WHO: World Health Organization

VLT: Vira Load Testing

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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background to the Study

The human immunodeficiency virus/Acquired Immune deficiency syndrome (HIV/AIDS) epidemic is global in its span. An estimated 36.7 million people are living with HIV as at the end of 2016HIV/AIDS (UNAIDS, 2017). According to the same report an estimated 1.8 million individuals worldwide became newly infected with HIV in 2016 where about 5,000 new infections per day were recorded. Currently, only 60% of people with HIV know their status, the remaining 40% (over 14 million people) still need to access HIV testing services. As of July 2017, 20.9 million people living with HIV were accessing antiretroviral therapy (ART) (UNAIDS, 2017). Globally, up from 15.8 million in June 2015, 7.5 million in 2010, and less than one million in 2000. One million people died from AIDS-related illnesses in 2016, bringing the total number of people who have died from AIDS-related illnesses since the start of the epidemic to 35.0 million (UNAIDS, 2017).

In Africa, WHO (2016) states that HIV has seen a rapid and uncontrolled expansion during the last two decades. HIV has become a serious problem for Africa with one of the highest rates of spread in the world (WHO, 2016). East and Southern Africa is the region that is hardest hit by HIV, it is home to 6.2% of the world's population but has 19.4 million people living with HIV, over 50% of the total number of people living with HIV in the world (United Nation Summit, 2016). In 2016, there were 790,000 new HIV infections, representing 43% of the global total (UNAIDS, 2017).

Despite advances in scientific understanding of HIV and its prevention and treatment as well as years of significant effort by the global health community and leading government and civil society organizations, too many people living with HIV or at

risk for HIV still do not have access to prevention, care, and treatment, and there is still no cure. However, effective treatment with antiretroviral drugs can control the virus so that people with HIV can enjoy healthy lives and reduce the risk of transmitting the virus to others.

Ghana, one of the largest countries in West Africa in terms of population size, had an adult HIV prevalence of 1.6% in 2015 (UNAIDS, 2016). Antiretroviral therapy (ART) coverage in the country is suboptimal, with about 34% of all HIV-infected people receiving ART in 2015 (UNAIDS, 2016). The country is increasingly faced with difficult decisions on optimizing ART treatment strategies that are effective, efficient and feasible within the context of stagnating international donor contributions, according to the Global Fund (GF, 2014).

The Northern Region often receives less direct attention and funding for HIV, as it does not rank as high in HIV prevalence as more population-dense urban centers (Moffatt, 2016). This lack of attention is problematic, especially considering the recent doubling in HIV prevalence in the Northern Region from 0.6% in 2014 to 1.2% in 2015, according to the Ghana AIDS Commission (GAC, 2016). There are also distinctive barriers faced in the North, such as unique traditional beliefs and practices and a deficit in comprehensive knowledge that affect stigma and discrimination around HIV/AIDS (Moffatt, 2016).

According to the Ghana AIDS Commission (2016), Tamale Metropolis recorded 0.4% out of the total 0.7% HIV/AIDS prevalence recorded in the entire Northern Region in 2016. As a result, many international institutions and organisations such as the World Health Organisation (WHO), World Bank (WB), United Nations Population Fund (UNFPA) and United Nations International Children's Emergency Fund (UNICEF)

have strongly advocated access to HIV/AIDS services in the Metropolis as a means to reduce the burden of HIV/AIDS (Moffatt, 2016).

Comprehensive healthcare for HIV patients is an approach that cares for the whole patients and all his or her needs, towards improving total health and not just the medical and physical ones. It covers patient's access to quality care and treatment, institutional arrangements for providing HIV/AIDS care and the institutional barriers to the provision of comprehensive healthcare for HIV/AIDS patients.

1.2 Statement of the Problem

Globally, the HIV epidemic not only affects the health of individuals, it impacts households, communities, and the development and economic growth of nations. Many of the countries hardest hit by HIV also suffer from other infectious diseases, food insecurity, and other serious problems (UNAIDS, 2017).

Despite these challenges, there have been successes and promising signs. New global efforts have been mounted to address the epidemic, particularly in the last decade (UNAIDS, 2017). Prevention has helped to reduce HIV prevalence rates in a small but growing number of countries and new HIV infections are believed to be on the decline (Levi et al., 2016). In addition, the number of people living with HIV and receiving treatment in resource-poor countries has dramatically increased in the past decade. UNAIDS (2016) report that progress has been made in preventing mother-to-child transmission of HIV and keeping mothers alive. In 2015, 77% of pregnant women living with HIV globally had access to antiretroviral medicines to prevent transmission of HIV to their babies; new HIV infections among children have declined by 50% since 2010. HIV treatment through antiretroviral therapy (ART) has also increased (UNAIDS, 2017).

Notwithstanding, in Ghana, though the coverage of access to HIV/AIDS care and treatment services has been expanded, the quality of the services received by the patients in most health facilities is impeded by several factors (Moffatt, 2016). Comprehensive healthcare for HIV/AIDS patients in public health units in most parts of the country including Tamale Metropolis has been advocated by international institutions and organisations such as WHO, World Bank, UNFPA and UNICEF (Moffatt, 2016). However, healthcare services for HIV/AIDS patients in Tamale Metropolis has been hampered by several factors including access to quality care and treatment, poor institutional arrangement for receiving HIV/AIDS care and treatment, and institutional barriers. Most of these factors have not been clearly identified and addressed for so long time.

If the aforementioned challenges are not properly identified and addressed in time, Ghana could miss the Sustainable Development Goal three (SDG 3) target on HIV/AIDS, which is to end AIDS epidemic by 2030 (United Nation Summit, 2015). It is for this reason that the present study is conducted to assess the comprehensive healthcare for HIV/AIDS patients in the three major public health institutions: Central Hospital, West Hospital and Tamale Teaching Hospital (TTH) in the Tamale Metropolis in order to come out with appropriate recommendations to improve quality of HIV/AIDS care and treatment in the major public health institutions in the Metropolis and other parts of Ghana.

1.3 Justification of the Study

Many research findings have confirmed the degrading and destructive nature of HIV/AIDS if there is delay to care. In this regard, there have been a number of researches (The Global Fund, 2014; Moffatt, 2016; and Ghana AIDS Commission, 2016; Mikklesen *et al.,* 2017) on the prevalence and treatment of HIV/AIDS in some

parts of Ghana. However, these studies failed to identify clearly the major factors that underpin comprehensive healthcare for HIV/AIDS patients in the various public health institutions in Ghana. This has created a major gap in literature.

For instance, the study conducted by Moffatt (2016) reviewed needs assessment of HIV/AIDS in Ghana's Northern Region. The purpose of his paper was largely to identify the current issues relating to HIV/AIDS in the Northern Region, which involve many complex layers of culture, social practice, economics, medicine, gender dynamics and psychology. Identifying these issues then provides a foundation for assessing the needs going forward in the treatment of HIV/AIDS in the Northern Region. However, his study could not identify the nature and quality of HIV/AIDS care and treatment at the facility level in the Northern Region. This therefore created a gap in literature in which this study intends to fill.

Also, the study conducted by Mikklesen *et al.,* (2017) looked at the cost of HIV treatment and care in Ghana. The purpose of the study was to determine cost functions that describe the dynamics of costs of HIV/AIDS treatment and care in Ghana by cluster of differentiation 4(CD4) cell count at treatment initiation and over time on antiretroviral therapy (ART). Again, their study failed to look at comprehensive healthcare for HIV/AIDS patients in the major public health institutions.

Based on the gaps identified in the previous studies, this study, therefore, seeks to assess comprehensive healthcare for HIV/AIDS patients in the three major public health institutions in the Tamale Metropolis in order to come out with appropriate recommendation to address the problem.

1.4 Research Questions

The following research questions seek to guide the study:

1. Do HIV patients have access to quality HIV/AIDS care Services in the three major public health institutions (Central Hospital, West Hospital and TTH) in the Tamale Metropolis?
2. What are the institutional arrangements for providing HIV care and treatment in the three major public health institutions in the Tamale Metropolis?
3. What are the institutional barriers hindering HIV care and treatment in the three major hospitals in the Tamale Metropolis?

1.5. Research General Objective

To establish the factors influencing access to comprehensive healthcare for HIV/AIDS patients in the Tamale Metropolis.

1.5.1 Specific Objectives

Specifically, the objectives of the study however will focus on the following:

1. To identify factors influencing assess to care and treatment for HIV/AIDS patients.
2. To determine the institutional arrangements in place for providing HIV care and treatment
3. To determine institutional barriers hindering HIV care and treatment

1.6 Significance of the Study

This study, which seeks to assess the comprehensive healthcare for HIV/AIDS patients in the study area, is of immense importance, because it can serve as a reference material on case specific strategies to be adopted for different communities

to improve access to quality HIV/AIDS services as well as to reduce deaths from HIV/AIDS condition.

The study will also be of immense benefit for both national and internal organisations such as; the ministry of health (MoH), Ghana Health Service (GHS), GAC, WHO, World Bank, UNFPA, UN, and UNICEF in their quest to design and implement a comprehensive healthcare for HIV/AIDS patients. Other non-governmental organisations and management of the health facilities in the Tamale Metropolis could use the recommendations provided by this study to address some of the challenges impeding access to a comprehensive healthcare for HIV/AIDS patients.

This study may also be a reference material to be used to educate people on the dangers of late access to HIV/AIDS care and the danger associated with HIV/AIDS management by non-skilled healthcare providers. When the people are equipped with this information it can help to reduce HIV/AIDS related mortality.

This study will also help in providing quality healthcare services and based on this it will help improve healthcare in general and in the Tamale Metropolis. It is the concern of the Ministry of Health that much could be achieved with the SDG 3 which is to combat AIDS and all other diseases and end the epidemic by 2030. A critical examination of the causes of lack of comprehensive healthcare for HIV/AIDS patients will lead to finding strategies to achieve SDG 3.

Finally, this research will generate data on nature of HIV/AIDS care services and strategies to improve them. This will create awareness among public authorities, planners, policy makers and the wider community especially the people in the Tamale Metropolis.

1.7 Limitations to the Study

This research, like any other research is not without limitations. The following were the limitations of the study:

1. Management staff of the various Hospitals may be reluctant in giving out information since they may not want to portray their institution as not adhering to best practices as set by the Ghana Health Services.
2. getting persons with HIV/AIDS to interview was a bit difficult because they were busily trying to access health care and treatment anytime they visited the hospital
3. it was a challenge in getting access to the clinicians to answer questions because they had to attend to their daily routines and sometimes had to even attend to emergencies.

It should be said however that despite these challenges, efforts were made during the fieldwork and interviews to maximize confidentiality and reassurance to respondents and informants. The author believes that this measure has created the good atmosphere for the interviews and that their initial misgivings do not affect the quality of the findings.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter is dedicated to the review of relevant literature which comprises theoretical and empirical evidence. The purpose of this is to broaden the minds of readers regarding the topic understudy and to identify gaps in existing literature in which the present study intends to fill. The presentation and discussion of the literature is based on the specific objectives stated in chapter one.

2.1Perspectives on access to comprehensive care for HIV/AIDS patients

2.1.1 Conceptualization from diverse contexts

Globally, there are several factors that influence access to quality HIV/AIDS services among patients. Integrated into primary care system are HIV services. This involves the colocation and sharing of services and resources for HIV care and primary care, such as clinic space, clinicians, health education, pharmacy, laboratory services, and training. The integration of HIV services into primary care addresses the issue of skewed resource allocation, allowing people to access the health care they require regardless of HIV status. Available evidence suggests that integration offers several potential advantages at this point in the response to HIV in sub-Saharan Africa (Uebel *et al.*, 2013).

People infected with HIV (PIWH), are challenged by the health impact of opportunistic infections and the social consequences of having HIV (stigma and discrimination). They, thus, require care that accommodates their health condition, meets their expectations and encourages them to live positively (Kennedy *et al.*, 2013). Despite the recent universal scale up of HIV/AIDS treatment and care services

(HATCS) which has saved many lives, much remains to be done to ensure quality of care, satisfy patients and promote adherence and retention in care. In developing countries HATCS has low coverage and offers poor quality of care(Kennedy *et al.*, 2013). So Many of those in care are lost to follow-up and challenged to keep up the care. While approximately 70% of PIWH lived in sub-Saharan Africa and almost 66% of global HIV/AIDS-related deaths occurred in the region, only 41% of PIWH had access to antiretroviral therapy (ART) in 2014. The Antiretroviral therapy coverage increased from 2% in 2006 to 34% in 2016.

Since the 1990s, the introduction of Highly Active Antiretroviral Therapy (HAART) has modified the clinical course of HIV infection, reducing the rate of disease progression, the incidence of opportunistic infection and mortality. Despite the remarkable improvements in the HIV treatment and prevention, economic and social barriers that result in continued morbidity, mortality, and HIV infection persist. ART is to be delivered through health centres as part of a package of care that includes co-trimoxazole prophylaxis, counselling, the management of opportunistic infections and comorbidities, provision of antiretroviral drugs and nutritional support (Ndou *et al.*, 2015).

Kay *et al* (2016) identified five steps in the HIV Care Continuum required for reaching undetectable viral loads for patients infected with HIV, namely initial HIV diagnosis, linkage to care, retention in care, receipt of ART, and achievement of a low viral load at an undetectable level. Owing to the numerous activities being carried out for the past two decade, an extraordinary height has been reached in bringing down HIV associated morbidity, mortality, transmission, stigma and ameliorating the quality of life of people living with HIV. The Joint United Nations Programme on HIV/AIDS (UNAIDS) and partners launched in 2014 the 90–90–90 targets with the

aim of diagnosing 90% of all HIV-positive persons, providing antiretroviral therapy (ART) for 90% of those diagnosed, and achieving viral suppression for 90% of those treated by 2020 (UNAIDS, 2016).

Notwithstanding, 36.9 million people are living with HIV today and about 2.1 million new infections were recorded in 2015. Out of the 36.9 million of people with HIV globally, only 54% were diagnosed, 41% were on ART and 32% were virally suppressed, demonstrating that we are still very far from achieving the 90–90–90 targets. The lowest achievement rates were in low income and middle-income countries (LMICs). Global efforts to reach the 90–90–90 targets are leaving millions behind in western and central Africa. A relatively high burden of HIV in the region, combined with HIV testing and treatment coverage far below the global average, paints an alarming picture while it contains 7% of the world's population, the region is home to 17% of the world's people living with HIV and accounts for 30% of the world's AIDS-related deaths (UNAIDS, 2017).

Access to combination antiretroviral (ARV) therapy in resource-poor countries is perhaps the most contentious issue that surrounds the response to the African epidemic today. ARV drugs dramatically improve the health and prolong the lives of people living with HIV/AIDS (PLWHA). However, the high cost and demanding clinical requirements place them out of reach of the vast majority of PLWHA, especially in resources-poor countries. In a country like Nigeria, where free treatment is offered to these patients, access is increasing and the number of patients on the ARV programme is growing daily (UNAIDS, 2017).

In low-and medium-income countries, such as Nigeria, services provided at public health facilities are generally perceived by members of the public to be very poor.

Phrases such as “mere consulting clinics” are used to describe the state of such facilities (Jalal-Eddeen *et al.,* 2015). Patients face various problems in public hospitals in Nigeria, including overcrowding, consultation delays, receiving a poor reception, poor staff attitude and lack of proper staff guidance, as well as adequate staff and facilities (Jalal-Eddeen *et al.,* 2015). PLWHA face further hindrances to good quality of care, for example, poverty, stigma and discrimination, lack of facilities catering to these patients and poor accessibility to existing facilities, e.g. transport and logistics problems. One of the most important hindrances to access good quality of health care in Nigeria is stigma and discrimination (Jalal-Eddeen *et al.,* 2015). A strong association of HIV with stigma, isolation and discrimination has been observed. HIV is considered to be a “dirty disease”. Infected individuals are perceived as a disgrace to their families. It has been noted that the impact of discrimination on HIV-positive people is devastating. Discrimination could be understood as unfairly disadvantaging a person on the basis of some capacity or quality attributed to that person. PLWHA often perceive stigmatization all around them, even from close family members, as well as colleagues in places of work, schools and at religious gatherings. When stigmatization is perceived by patients to emanate from healthcare workers, it can hinder treatment and discourage patients from accessing treatment that is on offer to them (Olowookere *et al.,* 2013).

Ghana, like other African countries is under the 90–90–90 targets policy. Agyei *et al* (2014) reiterates that many people do not have access to HIV care because clinicians usually do not bring up the issues of sexually transmitted diseases though these are subjects that most people would like to discuss with their providers. In Ghana, the shortage of ART has been reported in some parts of the country especially in the

Northern Region which affects quality services delivery for HIV patients (Agyei *et al.*, 2014).

Moffatt (2016) indicated that the Northern Region is predominantly of traditional and devout faith, predominantly Islamic. So, there are certain religious and traditional beliefs that affect people access to HIV treatment and care. In the Northern Region, 83.6% of the population is Islam, 14% is Christian and only 2.5% identify with no religion (the lowest atheist prevalence in Ghana). In certain cases, very religious individuals may have beliefs against condom use. In a marriage if one spouse already has or elsewhere acquires HIV, this means it is highly likely the partner, or additional wives in the family, will also be infected with HIV. In certain communities there is also a discrepancy between cultural and religious beliefs and behavioral practice. For example, it may be conventionally taboo to discuss sex or condom use, but in practice, individuals are having marital, premarital or extramarital sex. This means these practices – which may be high risk for HIV transmission – continue, but individuals in the community are reluctant to acknowledge or talk about ways to have safe sex and prevent HIV transmission. This can especially be seen as a generational discrepancy. For example, NGOs who work with peer educators observe that more elderly members of the community may be scandalized when young peer educators are speaking with other young people or adolescents about safe sex and condom use, as they feel sex should be a topic reserved for mature adults. However, it is important and realistic that young people and adolescents be well informed, as they should be safely prepared if they choose to engage in sexual activity. In addition, discussions with students and young adults, both men and women, indicate a social trend where they feel embarrassed or ashamed to purchase condoms. Moreover, they may use condoms improperly because they are uncomfortable asking parents, friends, mentors

or peers for clarifying advice and instruction. According to the Ghana AIDS Commission (2016), Tamale Metropolis recorded 0.4% out of the total 0.7% HIV/AIDS prevalence recorded in the entire Northern Region in 2016. As a result, many international institutions and organisations such as the World Health Organisation (WHO), World Bank (WB), United Nations Population Fund (UNFPA) and United Nations International Children's Emergency Fund (UNICEF) have strongly advocated access to HIV/AIDS services in the Metropolis as a means to reduce the burden of HIV/AIDS (Moffatt, 2016).

2.1.2 Theoretical Framework

The study was guided by the Behavioral Model of Healthcare Utilization (known as the "access to care" model), which is widely used to explain factors influencing individuals' behaviours in clinical settings (Andersen *et al.,* 1973). This model is deemed appropriate for the study in the sense that, it examines the various behaviours exhibited by both healthcare providers regarding care and treatment of HIV in the institutional settings. In applying this model in the context of the study, HIV care and treatment is influenced mainly by three types of population characteristics and these are identified and discussed below:

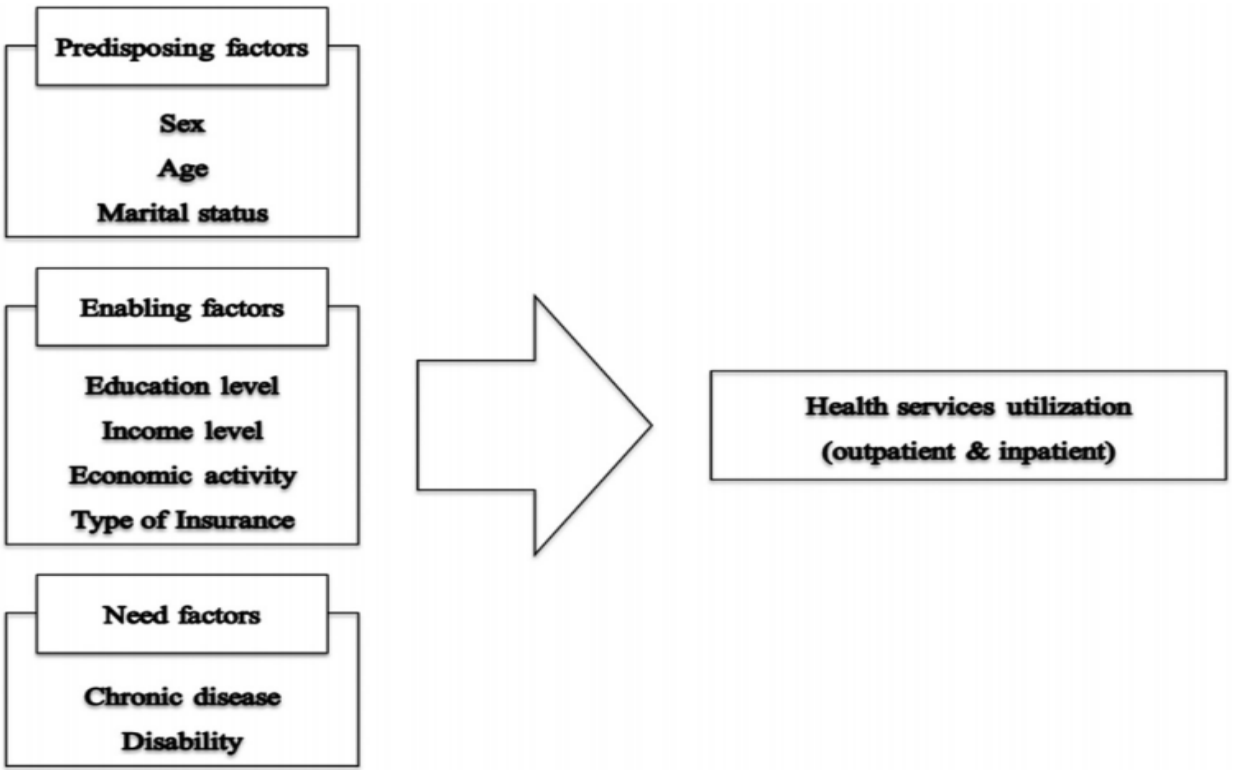


Figure 2:1 Behavioral Model of Healthcare Utilization

(Source: Andersen & Newman, 1973).

2.1.2.1 Predisposing factors

The predisposing factors that influence the individual to go for HIV testing and treatment that is, the demographic characteristics (Andersen *et al.*, 1973). These factors are mainly the socio-cultural characteristics that exist prior to their illness. They include the social structure such as occupation, education, ethnicity, social interactions, culture, and social network. It also includes values, attitudes, and knowledge of the individuals regarding the health care system for the care and treatment of HIV (Andersen *et al.*, 1973). The values are the cherished things in the society that either influences an individual to access health care or not. When the societal values do not encourage the attendance of health facilities for a treatment of

diseases, there is likelihood that, the individuals will not even draw closer to the facility talks less of accessing the health services (Andersen *et al.,* 1973). With due regard to the attitudes, the level of stigmatization of HIV patients in a society in one way or the other influences an individual`s access to health care, that is, in a society were discrimination and stigmatization is high then there is high possibility that, patients will not visit the hospital for health care and hence, less access to health services and vice versa. The knowledge of individuals regarding the health care system is a major factor, the lesser their knowledge to the existing policies targeting HIV patients there is high possibility of them not accessing health care and if the patients are wholly aware of the benefits associated with the system put in place for the access of healthcare then, in no doubt, the influence of it in access to health care will be much (Andersen *et al.,* 1973). According to Andersen *et al* (1973), the final aspect of the predisposing factors looks at the demographic characteristics of the population which include gender and age. The above identified predisposing factors have the potential of influencing HIV patient's access and attitude towards care and treatment.

2.1.2.2 Enabling Factors

The next category is enabling factors to the access of services (having a usual source of care). The enabling factors also influence the care and treatment of HIV/AIDS in diverse ways. This aspect deals with the logistical aspect of receiving care. It operates at three broad levels, family or personal level, community level and possible addiction (Andersen *et al.,* 1973). The factors that influences an individual`s access to health care services are the means and know how to access health services. To this end, an individual`s means of reaching the health center is at stake as well as how to access the health care (Andersen *et al.,* 1973). Other factors at the personal/family level are;

income level of individuals, the extent and quality of social relationship, that is, how socially connected one is as human asset to solve one problem financially influences his access to health care. This implies, individuals who are socially connected can have more access to health care services than those who are less connected. Another dimension of the enabling factors in healthcare utilization model is the community in which the individual lives (Andersen *et al.,* 1973). The community characteristics such as availability of health facilities, health personnel, and waiting times have greater influence on HIV treatment and care. In that, the presence of health facilities in a community can influence one`s health care accessibility but a situation where the community is without modernized and well trained health officers, the level of accessibility to health care will be very poor. In that same line, the waiting time for the receiving health care is a good determinant, a health facility which delays in health services is likely to deter the people to come to the facility unlike a facility which fastens the treatment of patients and for that matter HIV patients.

2.1.2.3 Psychological Factors

The last dimension in this category has to do with possible addictions such as psychological and genetic factors. According to Andersen *et al* (1973), there are psychological and genetic characteristics that an individual possesses. The psychological factors are the mental and emotional attachments or feelings that an individual has towards health care, these emotions can either influence one to access health care or not. Hence influence the way and manner in which one seeks healthcare.

2.1.2.4 Need Factors

The last and the third aspect of the Andersen and Newman (1973) Behavioral Model of Healthcare Utilization deals with need factors (risk category) that influence

individual need for HIV treatment and care. The immediate cause of HIV treatment and care that emerge from functional and health issues that brings about the need for treatment and care (Andersen *et al.*, 1973). This includes the perceived and evaluated needs. The perceived needs helps understand care-seeking and adherence to a medical regimen, while evaluated need will be more closely related to the kind and amount of treatment that will be provided after a patient has presented to a medical care provider (Andersen, 1995). In other words, the perceived needs are how people view their general health and functional state as well as how they experience symptoms of illness. For instance, if an individual's feel that his/her condition is manageable per is his experience, he might decide not to access health care and vice versa. With the evaluated needs represents professional judgment about people`s health status. That is, if an individual feels that more people thinks he have the sickness he is likely not to access health care.

2.2 Comprehensive Care and Treatment for HIV Patients

Globally, only 38% adults (15 and older) and 24% children living with HIV have access to ART treatment. As of 2013, 12.9 million people had access to antiretroviral therapy (UNAIDS, 2013). Access to treatment is key to stop the spread of HIV and AIDS-related deaths. It prolongs life span and improves the quality of life. It is also a key to preventing and reducing morbidity. Successful HIV treatment and prevention requires individuals to get tested, receive their test results, be linked and retained in care. Most people in need cannot obtain care and treatment in time to prolong their lives. Therefore, community-based organizations have been compelled to do for treatment for what they did for prevention place themselves on the cutting edge of treatment advocacy. Increasingly, they also lead and undertake operational programmes to deliver treatment while awaiting a much-needed public sector

response (Granich *et al.,* 2013). This Best Practice document describes a ground-breaking survey by Sidaction, a Paris-based treatment rights group which supports community responses to AIDS in low-and middle-income countries. For the first time, Sidaction has mapped treatment and care efforts by community-based organizations in Africa. The survey results show that many African community-based organizations are already dispensing antiretroviral therapy on a significant scale (Mall *et al.,* 2013).

Indeed, some are providing comprehensive, free-of-charge "total patient care" services, from entry into testing, followed by treatment, monitoring, and support for adherence to treatment regimens. These community efforts are often mounted by people living with HIV and are in direct response to the actual needs of those affected, including underserved groups such as women and children. With few resources, community-based organizations are responding through a wide range of flexible arrangements that support increased access to treatment. Many community-based organizations are already providing critical care and treatment services which support or ensure treatment access. These include: community mobilization; pre-and post-test counselling; HIV testing and results analysis; psychosocial support; treating opportunistic infections and providing palliative care; home-based care; information, education and advocacy sessions on antiretroviral therapy and treatment access; financial support and income-generation for purchasing antiretroviral medicines; treatment programmes for women and children; antiretroviral bulk-ordering; prescribing antiretroviral drugs; training health-care workers; medical follow-up; and treatment compliance clubs (WHO, 2015).

Decentralization of HIV care services into primary health care clinics results in greater acceptability of services, increased referrals and enrolments into HIV care, and improved patient retention compared to services at specialized hospitals. Patient

outcomes may also be better, and costs lower, at primary health clinics. Support systems such as monitoring and evaluation (M&E), supply-chain management, laboratory networking, and counseling services can also be shared when HIV services are integrated into primary care services. A program of decentralization and integration of HIV care services into the primary care system in Mozambique reported improvements in access to care, quality of care, and efficiency in service delivery. Integration may increase the positive effect of resources allocated to HIV: a study in Rwanda provides observational evidence that introduction of HIV care services results in improved staff capacity at primary healthcare facilities due to the additional in-service training given to healthcare workers. Increases in the uptake of other services, especially antenatal care, were also associated with integration, suggesting that a mutually beneficial interaction can be created between HIV care and other primary care services (Odeny *et al.,* 2013).

Odeny *et al* (2013), conducted a study on the integration of HIV care and treatment with primary health care services in rural Kenya and found out that integrating HIV care with primary care services does not negatively affect individual patients and may offer some benefits that extend beyond the health system level to the individual patient. Assessment of the patient-level effect suggests that patient satisfaction remained high and that integration did not heighten perceived stigma. Before and after integration, patients generally agreed that care was provided confidentially and equitably regardless of HIV status although women expressed increased discomfort with receiving care at integrated clinics. Patient education sessions appeared to have a greater effect when done in an integrated setting. The significant increase in satisfaction with HIV education as well as reception and wait times may be an indication that the increased staff training positively affected patient-provider

interaction. The increased satisfaction with HIV education may have also resulted because the mixed population of HIV-positive and general patients found the sessions more beneficial than HIV-positive patients alone or because of the broader scope of topics after integration. While we found that patients trusted healthcare providers to keep information confidential and to treat all patients equally to similar degrees before and after integration; women were less comfortable about receiving care at the integrated clinic.

2.3 Policies on comprehensive care for HIV/AIDS patients

According to the World Health Organization (2017), the greatest burden of disease from HIV infection by far, is in developing countries, where health services are generally ill equipped to cope. The UNAIDS (2017b) reiterate that Universal access to comprehensive health services is needed to reduce substantially HIV related morbidity and mortality worldwide. These services must effectively address six needs:

- Voluntary and confidential counselling and testing for HIV infection
- Prevention of HIV transmission, including sexual, parenteral, and mother to child transmission
- Prophylaxis against opportunistic infections
- Diagnosis and treatment of HIV related conditions including opportunistic infections and neoplasms
- Antiretroviral treatment
- Palliative care.

Developing countries (mostly African countries)need to cultivate healthcare system infrastructures capable of delivering these services, including skilled health providers

and laboratory facilities, HIV related training programmes, aligned national and local government policies, and a capacity to do operational research to improve access to comprehensive health care and treatment. Developing countries will have to develop healthcare system infrastructures capable of delivering these services, including skilled health providers and laboratory facilities, HIV related training programmes, aligned national and local government policies, and a capacity to do operational research to improve health care access (Kitahata *et al.*, 1996)

The Ghana AIDS Commission in collaboration with the Ministry of Health and the National AIDS and STI Control Programme in 2016 revised the National HIV and AIDS, STI Policy for Ghana. It was revised to take into account recent developments in the national and global response. This policy aims to decrease HIV and STI-related cases and deaths in infected persons through the use of effective medicines, ART, adequate nutrition and psycho-social and other support, as well as home-based care.

According to the GAC (2016), the national policy headed by the Ghana AIDS Commission is to focus on prevention of new HIV infections, care and support for people living with HIV/AIDS, creation of a supporting atmosphere for a national response, devolution of implementation of HIV/AIDS activities through institutional arrangements, research as well as monitoring and evaluation of ongoing programs. The main aim of the policy is to provide guidance to other HIV-related policies, interventions and programme design and implementation in Ghana. It is applicable to each sector and is expected to provide guidance for legislation, strategic plans; action plans and intervention-specific standards and protocols. The essence of the policy is to reduce the impact of HIV and AIDS, STI-related morbidity and mortality in the country in the interest of public health, safety and human security. (GAC, 2016)

The policy seeks to provide universal access to these services and maintain the effectiveness by responding to new evidence as and when it becomes available. HIV treatment, care and support services are also an important extension of prevention. This is because treatment, if implemented judiciously, tends to result in reduced risk of transmission and by extension, a reduction in new infections. This thematic area addresses the following: service delivery models, qualification for treatment and monitoring of patients in care and co-infections. Others are traditional remedies and alternative therapies, psycho-social support, nutrition, home-based care and social protection (GAC, 2016).

2.4 Factors influencing access to comprehensive healthcare for HIV/AIDS patients in Ghana

There are several barriers that have been identified worldwide hindering the care and treatment of HIV. The treatment of HIV/AIDS patients with ARV is part of the continuum of support and care rendered to those infected with the virus. Globally speaking, a total of 11.7 million people received ARVs as at December 2013 (WHO, 2015a). This means that the global target of covering 15 million people with ARVs is achievable. This good news is not so at the regional and country levels where, in the African Region, for instance, only 37% of people living with HIV were able to access lifesaving medicines year 2015 (WHO, 2015a). The picture is even more gloomy at the country level where the ARV coverages were 22%, 6%, 6%, 6% in South Africa, Zimbabwe, Kenya and Nigeria respectively (WHO, 2015a).

Ironically, all these countries are in sub-Saharan Africa that houses 70% of the global burden of HIV/AIDS infection (WHO, 2015b). Thus, if the global target of reaching 15 million people with ARVs by the end of 2015 is to be achieved, the coverages in these countries have to improve. Barriers to HIV/AIDS treatment have to remove so

as to improve access to the services and eventually the coverage. Such barriers differ from one country to another. According to the World Health Organization, there were 35 million people infected with the AIDS virus in the world in 2013, out of which 1.5 million died, 2.1 million became newly infected, and 25 million cases (70%) living in sub-Saharan Africa (WHO, 2015b). Furthermore, the WHO (2015a) has stated that HIV/AIDS has claimed more than 39 million lives from the beginning of the epidemic to date.

At the end of 2010, 1.1 million people were living with HIV in the United States. Advances in antiretroviral therapy (ART) have resulted in increased survival and a better quality of life for persons living with HIV. However, effective use of ART and viral suppression requires entry into HIV medical care, retention in care, and adherence to ART regimens. Earlier entry into and retention in HIV care has been shown to reduce the risk of developing HIV opportunistic illnesses, increase survival rates, improve access to supportive services and improve overall quality of life according to Centers for Disease Control and Prevention (CDCP, 2014).

However, numerous barriers exist that can adversely affect care access. Several system and patient related barriers to HIV medical care and treatment have been identified in the literature. Some of the barriers relate to the health care structure or system and include negative perceptions of the health care system, longer wait time for appointments, lack of flexibility in clinic hours to accommodate work schedules, unmet needs for child care, lack of access to a provider with expertise in treating HIV, strained patient–provider relationship, patient concerns about privacy, mandatory insurance coverage, and multiple funding sources with variable eligibility criteria, which causes many individuals to shift in and out of eligibility for HIV care. At the patient level, some of the barriers that prevent persons with HIV from utilizing HIV

medical care include mental health issues and drug addictions, negative health beliefs about getting care, perception about medical coverage, HIV stigma, limited social support, unstable housing, transportation, incarceration, undocumented immigrant status, and avoidance and denial of HIV status. All these issues influence entry, engagement, and retention in HIV care (Mgbere *et al.*, 2015).

The HIV medical care providers are considered a critical link between the health care system and the patient. Consequently, they are in a unique position to not only observe the health care system barriers that patients face in accessing HIV medical care but also have the tendency to develop perspectives regarding the individual-level barriers that prevent their patients from benefiting from the medical resources at their disposal. Although previous studies have examined the perceptions of barriers to care from the patient's perspective, less is known about HIV medical care provider's perceptions of barriers to care for their patients. The barriers identified by providers may truly represent the challenges faced by persons living with HIV who access care (Mgbere *et al.*, 2015).

In the review of patient-reported barriers and facilitators to antiretroviral adherence in sub-Saharan Africa by Croome *et al* (2017), forty-three unique patient-reported barriers and thirty facilitators to ART adherence includes factors relating to patients physically taking their ART medication (e.g. unable to take their pills without adequate food or using reminders to remember to take their pills), factors that impacted participants' physical or mental health (e.g. feeling sick or feeling better after taking ART), factors related to participants' relationships with other people (e.g. nondisclosure of HIV status to others or social support), factors related to finance (e.g. lack of money for HIV care or free ART treatment), factors related to participants' health provider including all staff (e.g. experiencing negative treatment from clinic

staff or having a good relationship with their health provider), beliefs around HIV and treatments for HIV (e.g. using traditional medicines or accepting own HIV status) and beliefs regarding ART (e.g. ART is harmful or ART is beneficial).

Factors related to collecting medication at the clinic (e.g. long waiting times or erratic drug supply) and treatment-related factors (e.g. side effects or pill burden) were only reported as barriers to ART adherence. One factor was both a barrier and facilitator (e.g. feeling better after taking ART), which emphasizes medication adhering behaviour is not universal and it is necessary to explore this individually. The most frequently identified barriers across studies and methodologies were forgetting, lack of access to adequate food, stigma and discrimination, side effects and being outside the house or travelling. The most frequently identified facilitators across studies and methods were social support, using reminders, feeling better or healthier after taking ART, disclosing their HIV status and having a good relationship with a health provider (Croome *et al.*, 2017).

Mohlabane, Tutshana, Peltzer and Mwisongo (2016) did a review on Barriers to access to antiretroviral treatment in developing countries. They define barriers to access ART as any factor occurring at the population level or health system level that restricts patients' initiation of and continuation into ART. We defined ART as any (combination of) drugs that have the primary intent to prevent the progression of AIDS. Barriers at the population level are related to predisposing, enabling and need factors. These factors together determine the health-seeking behaviour of the individual. Pre-disposing factors influence the 'propensity' of individuals to use services, and may include demographic factors such as gender, marital status and attitudes or beliefs about treatment, medical practitioners and disease.

Enabling factors refer to the means that individuals or their community may have availability to facilitate (or in their absence, hinder) the use of services and may include financial factors, information about treatment, familial responsibilities or insurance. At the community level, enabling factors may include community resources and ⁄ or social support factors. Need factors refer to the judgment or evaluation of the illness level that may hold back or accelerate the use of treatment. The need may be perceived either by the individual or by the medical care provider. Barriers at health system level can relate to resource factors such as health personnel, infrastructure, equipment and material used in providing treatment. Organizational factors refer to the way resources are coordinated and controlled in the process of providing treatment at both levels; some factors are more amenable than others to change by health policy decisions. For example, at the population level, the financial burden of care can be influenced if the government decides to provide universal health insurance coverage to the population. On the contrary, factors related to tradition, such as stigma, and beliefs are more difficult to change by policy decisions (Mohlabane *et al.,* 2016).

In Ghana, some of the institutional barriers that affect HIV care and treatment include lack of adequate funding at the provincial and district levels; inadequate integration of HIV programme activities; inadequate integration of the national strategic plan into provincial and district-level treatment and control activities; insufficient success in creating and sustaining commitment to HIV treatment and care at all levels; inadequate extension of services to special populations; unsatisfactory treatment outcomes at the district level in some provinces, reflecting inadequate staffing and skills; the need to ensure that HIV remains a top health priority at all levels of the health service; persistently high interruption rates and insufficient HIV treatment

defaulter tracing; insufficient budget allocation for the treatment and care for HIV patients, lack of confidentiality and privacy, shortage of drugs for HIV treatment among others (Ghana AIDS Commission, 2013).

HIV infection is a chronic condition that can be successfully managed with antiretroviral therapy (ART), which suppresses viral replication and halts immune system deterioration. ART involves taking medication daily, which can prevent progression to AIDS and enable persons infected with the virus to have nearly normal life expectancies. Optimal HIV care is characterized by a continuum of care; early diagnosis of infection, prompt linkage to regular care, appropriate initiation of ART, high levels of medication adherence, and retention in care over the life course (Ghana AIDS Commission, 2013).

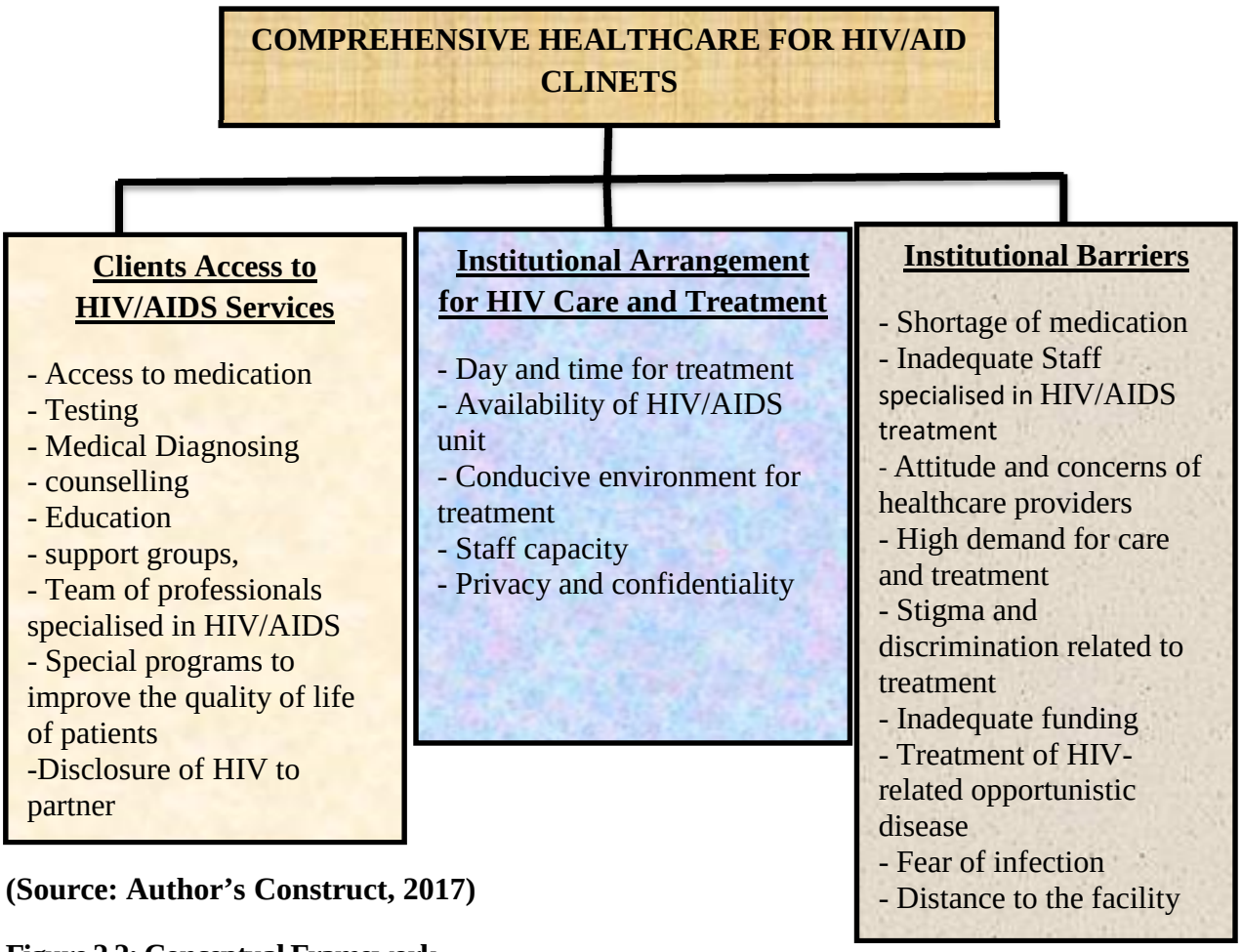
In the Northern Region of Ghana, there are numerous challenges to implement and roll out of the national policy and guidelines for the treatment of HIV at local levels. For example, leadership and governance are weak at the district and sub-district levels, where much of the intervention takes place. Human resources for health and physical infrastructure are also inadequate at these levels. There is limited access to services for those in need, especially for key and vulnerable populations. Other identified key challenges include: Policy gaps in the private sector response; slow uptake of workplace HIV programmes by formal and informal establishments; Weak capacity by Civil Society Organizations (CSOs) networks and umbrella organizations to effectively coordinate the large number of CSOs to implement HIV responses at national, regional and district levels. The absence of a GAC Secretariat at the decentralized level, coupled with high turnover of HIV focal persons; Lack of a resource mobilization strategy; Weak mechanisms to coordinate funding; and Accountability (Ghana AIDS Commission, 2013).

In the Northern Region there is a shortage of funding for test kits that prevents testing and counseling of the maximum number of patients. Although there are many efforts underway for increased testing, there are still a number of important populations that cannot be tested and additional outreaches that cannot occur. One deficit in funding is that many clinics or hospitals are well funded to cover test kits for pregnant women, often through The Global Fund, which is linked to the PMTCT program; HIV & AIDS in Ghana's Northern Region: Needs Assessment however, they cannot actively encourage men or other demographics to get tested, as they do not have sufficient test kits for these groups in addition to pregnant women (Moffatt, 2016).

The GAC currently sets up testing and counseling events, often spanning over a series of days, at various health clinics. Often, they test for other STIs, such as syphilis, along with HIV. These events are usually very busy and especially well attended by women. GAC advertises for these events and uses radio announcements to encourage people to come and get tested. Ideally, there would be testing and counseling sessions in diverse locations across the Northern Region, as it may be hard for people in more distant regions to travel to get tested. NGOs could supplement these larger testing and counseling events with mobile outreaches, where they bring staff and nurses to travel directly to a series of smaller communities and offer testing and counseling services. However, funding for these types of projects can currently only be secured by special lobbying efforts to stakeholders. Although funding is currently insufficient for the breadth of testing that would be ideal, it is hoped that with the active implementation of the 90-90-90 target treatment and testing campaign, more funds can be allocated to testing efforts in the Northern Region (Moffatt, 2016).

2.5 Conceptual Framework

The conceptual framework of the study outlines the key issues that are intended to be addressed by the researcher. This is done by looking at three major components that affect comprehensive healthcare for HIV/AIDS patients as shown in figure 2.2 below.



(Source: Author's Construct, 2017)

Figure 2.2: Conceptual Framework

Comprehensive healthcare for HIV patients is an approach that cares for the patient and all his or her needs, towards improving total health and not just the medical and physical ones. It covers patient's access to quality care and treatment, institutional arrangements for providing HIV/AIDS care and the institutional barriers to the provision of comprehensive healthcare for HIV/AIDS patients.

2.5.1 Patients access to quality HIV/AIDS Services.

The access factors in the study is defined as availability of quality medication, testing and medical diagnosing, HIV/AIDS counselling, HIV/AIDS education, HIV/AIDS support groups, team of professionals specialised in HIV/AIDS, and special programs to improve the quality of life of patients.

2.5.2 The institutional arrangement for providing HIV/AIDS care and treatment.

This is defined as the methods and techniques used in providing HIV/AIDS care and treatment in the public health institutions. It covers the day and time for providing patients medication, environment in which treatment is provided, and privacy and confidentiality surrounding treatment in the public health institutions.

2.5.3 Institutional barriers hindering HIV/AIDS patients access to HIV/AIDS services.

This defines factors that affect the full functioning of the public health institutions in their quest to provide comprehensive healthcare for HIV/AIDS patients. These barriers include; shortage of medication, inadequate Staff specialised in HIV/AIDS treatment, attitude and concerns of healthcare providers, high demand for care and treatment, stigma and discrimination related to treatment, inadequate funding, treatment of HIV related opportunistic disease, fear of contagion, and distance to the facility.

2.6 History of Human Immuno-deficiency Virus (HIV)

In March 1986, the initial case of AIDS was reported in Ghana. January 1991 gave birth to a more detailed report on AIDS in Ghana with 107 human immunodeficiency virus (HIV), positive cases were actually said to have been recorded in 1987. Three hundred and thirty-three people were identified as being HIV positive March 1988,

and there was a further increase to 2,744 by the end of April 1990. Of the April 1990 number, 1,226 were reported to have contracted AIDS. According to WHO annual reports, the disease continued to spread in the country. During 1991 the Okomfo Anokye Teaching Hospital reported about fifty AIDS cases each month.

Even though the confirmed numbers were far beneath the known cases in East Africa and Central Africa, they were still alarming as Ghana was already overburdened by traditional health problems. The Ghana Academy of Arts and Sciences held Seminars and conferences to discuss issues surrounding the disease at their annual conference in 1990. The conference theme was "the impact of international prostitution and the spread of AIDS". A surveillance system to track the AIDS virus also set up by The Ministry of Health, with funding from WHO as part of its medium-term (1989-93) plan. The module of the programme was that a countrywide sample of both high- and low-risk groups be identified for testing at regular intervals to measure the prevalence of the disease. The National Advisory Council on AIDS was established in late 1989 with thirty (30) members to advise the government on policy matters relating to the control and prevention of AIDS in the country. The Ministry of Health lacks adequately trained personnel and information management systems to combat the disease.

Below is an extract from National AIDS Control Programme for year 2016:

"With emerging new evidence in therapeutic outcomes world-wide and changing trends in the management of PLHIV, Ghana has made a major shift from ART initiation at WHO clinical stage 3 & 4 and or CD4 Count <500cells/mm3 for all patients in line with the Nov. 2015 WHO Treat All recommendations. Ghana has also adopted the global UNAIDS 90/90/90 aspirational targets in order to sustain the progress being made in the area of care for PLHIV towards ending the AIDS epidemic by 2030. This has necessitated the current review and revision of a national guideline for Antiretroviral Therapy in Ghana. This guideline is therefore in keeping with current global trends to fast track quality HIV prevention, treatment, care and

support. It focuses on the need for adults irrespective of WHO clinical staging and CD4 criteria, improvement in regimen choice for adults and children including the introduction of a new third regimen, increasing opportunities for early identification and treatment of infected infants, emphasis on differentiated care and retention in care, emphasis on viral load monitoring, further guidance on managing treatment failure and HIV drug resistance monitoring.

These guidelines have been updated within the context of the Health Sector HIV Strategic Framework 2016-2020 and the Nation HIV and AIDS Strategic Plan 2016-2020. The guidelines are expected to ensure a rapid enrollment of currently existing and future patients in clinical care who continue to remain in the queue for ART due to limitations imposed by previous criteria and commodity unavailability. It is the hope that implementing these guidelines fully will make positive impact on the lives of many who live with HIV, avert death in both adults and children, and certainly reduce the occurrence of new infections in accordance with national targets. Thus, with the needed resources of the health delivery system.

The guidelines referred to preferred drugs that are to be given patients at each age. Eg for children, young Adolescents, Adolescents, Adults. These are contained in regimens.

(A) Special Conditions in the guideline:

1. Previous exposure to ART
2. Treatment of TB/HIV Co-infection
3. Developing TB while on ART
4. Treatment of HIV and Hepatitis B Co-infection
5. Patients with HIV-2 or HIV 1&2 dual infection
6. High-risk infection management
7. Treatment changes
8. Drug issues
9. Monitoring clinical
10. Monitoring laboratory
11. Monitoring adherence
12. Monitoring efficacy

(B) Care Pathway for People exposed to HIV

(a) Assessment

1. Clinical assessment of exposure/eligibility assessment for HIV post-exposure. Prophylaxis/HIV testing of exposed persons and source if possible/ provision of first aid in case of broken skin or other wound.

(b) Counseling and support

1. Risk of HIV/ Risks and benefits of HIV post-exposure prophylaxis/ side effects/ Enhanced adherence counseling, if post-exposure prophylaxis to be prescribed/ specific support in case of sexual assault

(C) Prescription of ART

1. Post-exposure prophylaxis should be initiated as early as possible following exposure/ 28-days prescription of recommended age- appropriate ARV drugs.
2. Drug information
3. Assessment of underlying Co-morbidities and possible drug-drug interactions

(D) Follow up

1. HIV test at 3 month after exposure
2. Link to HIV treatment if possible
3. Provision of prevention intervention as appropriate

DISCLOSURE

The clinicians and counselors should strongly encourage the disclosure of the HIV-positive status to a confidant (partners) so that both can be involved in the issues relating to treatment and offer support to each other and also to avoid reinfection".

2.7 Profile of the Virus

AIDS is caused by a human immunodeficiency virus (HIV), which originated in non-human primates in Central and West Africa. While various sub-groups of the virus infect human at different times, the global pandemic had its origins in the emergence of one specific strain – HIV-1 subgroup M – in Léopoldville in the Belgian Congo (now Kinshasa in the Democratic Republic of the Congo) in the 1920s. "AIDS is believed to be caused by the effect of the human immunodeficiency virus (HIV). Furthermore, AIDS is terminology used to describe a range of diseases and infections which are present in people with a weakened immune system caused by HIV. In other words, AIDS is the late stage manifestation of HIV" (Kenny et al., 2012).

There are two types of HIV: HIV-1 and HIV-2. HIV-1 is more virulent and hence easily transmitted. It is the cause of the vast majority of HIV infections globally. The

pandemic strain of HIV-1 is closely related to a virus found in chimpanzees of the subspecies Pan troglodytes troglodytes, which live in the forests of the Central African nations of Cameroon, Equatorial Guinea, Gabon, Republic of Congo (or Congo-Brazzaville), and Central African Republic. HIV-2 is confined largely to the West African region and comparatively less transmittable, along with a virus, sooty mangabey (Cercocebusatysatys) its closest relative, and an Old World monkey inhabiting southern Senegal, Guinea-Bissau, Guinea, Sierra Leone, Liberia, and western Ivory Coast

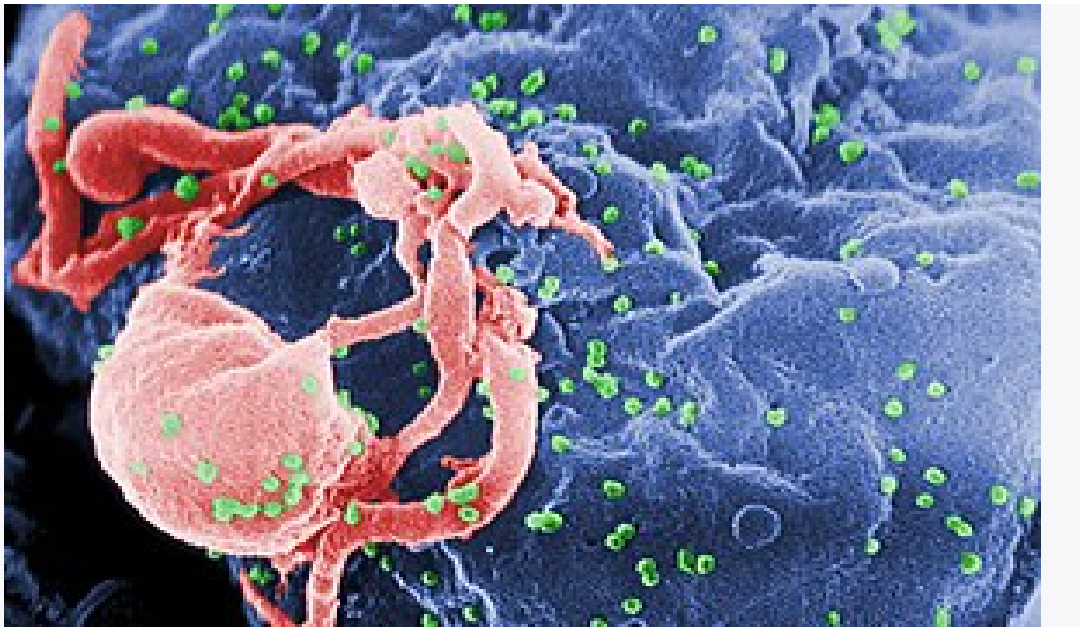


Figure 1.3: False-scanning electron micrograph of HIV-1, in green, budding from cultured lymphocyte

When the HIV enters the cytoplasm of a T helper cell with CD4 receptor, also known as CD4 T lymphocyte cell, it employs the so called transcriptase which produces DNA from the virus RNA. This is the reverse of the transcription process whereby DNA is used to produce a strand of RNA for protein synthesis. The DNA strand which newly produced is then replicated to form two strands of DNA held together by a weak bond. The DNA strands move into the nucleus and then integrates into the

genetic material (genome) of the host's CD4 T lymphocyte cell using a retroviral integrase enzyme (Krebs *et al.,* 2014). The HIV genetic material becomes part of the chromosome of the CD4 T lymphocyte cell and either stays dormant or virus RNA will be produced from the virus DNA to make proteins necessary for new viruses. The new viruses when formed burst out of the CD4 T lymphocyte cells to infect other CD4 Tlymphocyte cells, repeating the same process over again (Alberts *et al.,* 2013).

Currently is HIV has no cure or vaccine; there are however, two methods of treatment for people infected with HIV; antiviral therapy and medication for opportunistic infections.

Antiviral therapy makes the use of antiretroviral medications to decrease the reproduction of HIV in the body. There are six classes of antiretroviral drugs;

- non-nucleoside reverse transcriptase inhibitors
- nucleoside reverse transcriptase inhibitors
- protease inhibitors
- fusion inhibitors
- CCR5 antagonists
- integrase inhibitors

These drugs work in different ways such as nucleoside reverse transcriptase inhibitors prevent the virus RNA from being reverse transcribed by the DNA polymerase in the nucleus of the CD4 lymphocyte cells (Ka'opua and Linsk, 2007). To increase its efficacy the medications are administered in combinations (WHO, 2014). "The World Health Organisation recommends the commencing of antiretroviral drug treatment when the CD4 T lymphocyte cell count falls below 350

per microlitre of when people exhibit symptoms of the disease in order to reduce the risk of death" (WHO, 2010).

2.8 Review of Related Studies

In a study conducted by Levi *et al* (2016), they adequately highlighted the gaps in HIV diagnosis and provision of ART, which may be unattainable under the ambitious, UNAIDS 90–90–90 targets given the current trends. However, the targets only make sense if HIV testing is performed under acceptable conditions and appropriate interventions to ensure linkage to care after testing are put in place. Improving the quality of counseling could upgrade linkage to care, trust and compliance. It is no news that social workers and trained psychosocial support staff remain scarce if not inexistent in most healthcare facilities that manage patients with HIV. Without refuting the fact that HIV-associated stigma has reduced significantly worldwide, it still constitutes a hindrance to optimal care, even in developed countries. Out of the estimated 36.7 million individuals living with HIV worldwide in 2015, about 70% are in sub-Saharan Africa, Western Africa countries are generally facing relatively low HIV prevalence levels; Ghana had an adult HIV prevalence of 1.6%. The coverage of antiretroviral therapy in the country is suboptimal, with about 34% of all HIV-infected people receiving ART in 2015.

Yakob and Ncama, (2015) conducted a study on the perceived quality of HIV treatment and care services in Wolaita Zone of southern Ethiopia. It was revealed from the study that most of the people infected with HIV had good perceived quality of care that did not vary significantly across the socio-demographic characteristics except for employment status. Unemployed persons perceived a higher quality of HATCS than their employed counterparts although the reason was not clear. The findings revealed that the hospital and health centers did not vary significantly in

terms of perceived quality of HATCS, and that both high and/or low performance in quality of care were explained by other factors investigated in this study. The study also showed that improvement in the health system's responsiveness (increase in the scores) affected perceived quality of HATCS. When healthcare facilities improved, performance in the responsiveness domains (autonomy, prompt attention, and respect, and confidentiality, amenities of care, choice and communication) was perceived as good quality of care. This implies that the healthcare climate and patient experiences with the health facility are important aspects of HIV care and treatment that need to be followed up and continuously improved to ensure good quality of care. It was also deduced from their study that convenience and access to transportation, and distance from the health facilities were important factors in the evaluation of quality of HATCS, thus demonstrating the role of factors for which the health system is not directly responsible. Increased difficulties relating to transportation can derail perceived quality of HATCS. On the other hand, ease of transportation results in improved perceptions of quality of HATCS, indicating its optimization effect on the health system-based factors. Ensuring access to transport might lie outside the realm of responsibility of the health sector and might require multisectoral collaboration and a coordinated response. This study examined factors associated with delayed access to ART among PLHIV in Vientiane, the capital of Lao PDR. The age and educational level were associated with delayed access to ART. It was evident that the duration of seeking ART after diagnosis had no association with delayed access to ART, but a significant association was found between the duration of seeking for HIV test in this study. These findings indicated that the obstacle to early access to ART was late detection on HIV infection due to low perception, misconceptions of the HIV disease, lack of information on HIV treatment, and stigma issues. Few studies done in rural

Uganda and urban Zambia have shown that there was relatively low uptake of ART services among women, young people and married people with a high HIV prevalence, income, education, and lower levels of socioeconomic conditions were factors strongly associated with reduced access to health care services.

Mikkelsen *et al* (2017) conducted a study to determine cost functions that describe the dynamics of costs of HIV treatment and care in Ghana by CD4þ cell count at treatment initiation and over time on antiretroviral therapy (ART). They used detailed longitudinal healthcare utilization data from clinical health records of HIV-infected patients at seven Ghanaian ART clinics to estimate cost functions of treatment and care by CD4þ cell count at treatment initiation and time on ART. They developed two linear regression models; one with individual random effects to determine the relationship between CD4þ cell count at ART initiation and costs of treatment and care, and one with individual fixed effects to determine the causal effect of time in care on costs of treatment and care. They found that costs for treatment and care were lowest (7.9 US$) for patients with CD4þ cell counts of at least 350 cells/ml at ART initiation, compared with patients with 50 cells/ml or less at ART initiation, yet the difference was not significant. The per-patient costs peaked during the first 6 months on ART at 112.6 US$, and significantly decreased by 70% after 4 years on treatment. The findings show that an accurate analysis of resource needs of HIV treatment and care should consider that healthcare costs for HIV-infected people are dynamic rather than constant. The cost functions derived from our study are valuable input for cost-effectiveness analyses and research allocation exercises for HIV treatment in sub-Saharan Africa.

Markson *et al* (1997) conducted a study to profile characteristics of clinics caring for persons with advanced HIV infection in New York. The clinics were classified into

hospital-based general medicine or primary care, HIV specialty, independent/free-standing (community-based) and other hospital-based clinics including surgery and obstetrics/gynecology. Access to evening or weekend hours varied substantially by type of clinic, with community-based clinics more likely to offer extended hours. Clinics were open an average of 39 hours per week, with community-based clinics open the longest and general medicine/primary care sites came after. Although half of the clinics offered some hours after 5 pm, less than one quarter had weekend hours. On-call physicians were available for almost three quarters of the clinics, but this coverage was greatest in obstetrics/gynecology surgery clinics. Approximately three quarters of the general medicine/primary care and HIV clinics performed routine pap smears compared with almost all (94%) of the community-based clinics. Colposcopies were performed in slightly more than half of the community-based clinics, but at most in one third of the general medicine/primary care and HIV clinics. HIV clinics were much more likely than general medicine/primary care clinics or other sites to provide intravenous infusions, inhaled pentamidine, or transfusions on-site. The availability and array of services to meet the complex demands of persons with advanced HIV are somewhat more limited in hospital-based general medicine/primary care clinics than in HIV specialty clinics. Community-based clinics offer HIV-specific services generally like those of hospital-based general/primary care clinics but have greater accessibility and delivery of obstetrics/gynecology and pediatric care, permitting the potential for family-based care.

In a study conducted by Mgbere *et al* (2015) on System and patient barriers to care among people living with HIV/AIDS in Houston/Harris County. This study noted that race/ethnicity of the providers as well as profession of the care providers and years of experience in HIV care were influential factors that determined the perception of

barriers experienced by patients in obtaining HIV care in Houston/Harris County, it reported that in general providers who were of minority races were less likely than white providers to perceive most of the identified barriers as important. Almost three-fourths the providers cited the cost of HIV care as the most important system barrier hindering patients from receiving adequate HIV care and putting strain on the systems that serve them. Over time, the expenditures for HIV care, including public expenditures, have risen significantly and largely reflect growing numbers of people living with HIV in need of services and increasing health care costs, particularly for prescription drugs. For instance, the average annual CHC in the ART era was estimated to be US$19,912 (in 2006 dollars; US$23,000 in 2010 dollars). It noted that several known system barriers such as inconvenient facility/clinic hour and location, lack of insurance coverage, length of time to schedule appointment, lack of translation services, and child care at the facility/clinic were identified as unimportant barriers to HIV care among patients. This may be associated with the fact that several of these support services are currently provided in many public and selected private clinics and local AIDS service organizations through the Ryan White HIV/ AIDS Program, CDC, and Texas Department of State Health Services funds. The study identified transportation as an important barrier to HIV care among patients in Houston/Harris County, Texas. It was found in the study that both culturally based health beliefs and behaviours of patient and inability of patient to understand medical instructions were identified as important barriers to HIV care and that these barriers were also positively correlated to each other. Encounters between HIV care providers and patients from different social or cultural backgrounds are becoming increasingly common in Houston/Harris County. This follows the transformation of the city into one of the most ethnically and culturally diverse cities in America. For instance, many

recent immigrants have limited proficiency in English, which presents challenges for the local health systems. Consequently, patients may have different thresholds for seeking care or expectations about their care, and unfamiliar beliefs that may influence whether or not they adhere to providers' recommendations. Although clinicians strive to improve health outcomes and increase quality of life for every patient, some clinicians may lack the information to understand how culture influences clinical encounters and the skills to effectively bridge potential differences, which are precursors of limited access to HIV care services and poor health outcomes. Culturally competent care requires health care providers to have knowledge of and comfort with cultures and beliefs that may be different from their own. Such knowledge may help shape providers values, beliefs, and behaviours and allow them to successfully guide immigrant populations through their unique challenges and the complex health care systems to obtain needed HIV care. Mental health and alcohol abuse problems were perceived by more than 90% of the participating providers as major barriers to HIV care among people living with HIV/AIDS in Houston/Harris County. Given that as many as 50% of HIV-positive patients also have a psychiatric diagnosis and/or a substance use disorder, there is a continued need for intervention programs aimed at encouraging patients to use available mental health and substance use treatment services. Studies show that decreasing alcohol use among HIV positive patients not only reduces the medical and psychiatric consequences associated with alcohol consumption but also decreases other drug use and HIV transmission. HIV care providers in this study also unanimously identified lack of social support and substance abuse as the major patient related barriers to HIV care in Houston/Harris County, Texas. Social supports often have multiple levels of positive impact on patients and may motivate them to take the necessary steps to seek appropriate health

care. Studies have shown that family, friends, and relatives are important sources of social support, who can influence patient well-being and quality of life, improve physical and psychological health outcomes, increase motivation for treatment, promote self-care behaviour, and also prevention of transmission of HIV infection. Similarly, HIV-positive patients using drugs or alcohol are less likely to be adherent to ART or responsive to health care appointments. They may also engage in impulsive and risky sexual behaviour such as unprotected sex, which can transmit HIV infection to their partners. Since patients often have trust in their providers, it may be necessary for physicians to capitalize on this relationship to deliver prevention messages during encounters with HIV-positive patients who are using drugs, including referrals to substance use treatment services and support networks.

2.9 Summary

The reviewed literature shows that, Behavioral Model of Healthcare Utilization examines the various behaviors exhibited by both healthcare providers regarding care and treatment of HIV in the institutional settings. In the context of HIV care and treatment is influenced mainly by three types of population characteristics; the predisposing factors that influence the individual to go for HIV testing and treatment (demographic characteristics), the knowledge of individuals regarding the health care system. The next category is enabling factors to the access of services. The last Model of Healthcare utilization deals with need factors (risk category) that influence individual need for HIV treatment and care. The study with respect to the Institutional Arrangements for Providing HIV Care and Treatment also revealed that, globally, only 38% of adults (18 years and over) and 24% of children living with HIV have access to ART treatment. As of 2013, 12.9 million people had access to antiretroviral

therapy (UNAIDS, 2013). Access to treatment is key to stop the spread of HIV and AIDS-related deaths.

However, numerous barriers exist that adversely affect health care access. Several system and patient related barriers to HIV medical care and treatment have been identified in the literature. Some of the barriers relate to the health care structure or system and include negative perceptions of the health care system, longer wait time for appointments, lack of flexibility in clinic hours to accommodate work schedules, unmet needs for child care, lack of access to a provider with expertise in treating HIV, strained patient–provider relationship, patient concerns about privacy, mandatory insurance coverage, and multiple funding sources with variable eligibility criteria, which causes many individuals to shift in and out of eligibility for HIV care. At the patient level, some of the barriers that prevent persons with HIV from utilizing HIV medical care include mental health issues and drug addictions, negative health beliefs about getting care, perception about medical coverage, HIV stigma, limited social support, unstable housing, transportation, incarceration, undocumented immigrant status, and avoidance and denial of HIV status.

Specifically in Ghana, some of the institutional barriers that affect HIV care and treatment include lack of adequate funding at the provincial and district levels; inadequate integration of HIV programme activities; inadequate integration of the national strategic plan into provincial and district-level treatment and control activities; insufficient success in creating and sustaining commitment to HIV treatment and care at all levels; inadequate extension of services to special populations; unsatisfactory treatment outcomes at the district level in some provinces, reflecting inadequate staffing and skills; the need to ensure that HIV remains a top health priority at all levels of the health service.

The reviewed of related studies showed that, most of the people infected with HIV had good perceived quality of care that did not vary significantly across the socio-demographic characteristics except for employment status. Unemployed persons perceived a higher quality of HATCS than their employed counterparts although the reason was not clear. The findings revealed that the hospital and health centers did not vary significantly in terms of perceived quality of HATCS, and that both high and/or low performance in quality of care were explained by other factors investigated in this study. The revealed literature also showed that improvement in the health system's responsiveness.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This study was centered on assessing comprehensive health care for HIV/AIDS patients in the three major public hospitals in the Tamale Metropolis of Ghana and this chapter describes the methodology that was used in conducting the research. These hospitals were chosen because; they are the facilities which attend to all HIV/AIDS cases in the Metropolis. This section covers research design which contains the entire programme guide that the research student used in conducting the study. It includes sample size and sampling procedure, the research instrument used in gathering data from respondents, procedure followed in data collection on the field as well as the data processing and presentation.

3.1 Research Design

Research design is a programme guide or plan of action the researcher uses to undertake a study (Yin, 1994). Creswell (2009) defined Research designs as plans and procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis.

In this research, cross sectional survey was used with the mixed method approach (which combines both qualitative and quantitative research designs). In cross-sectional survey either the entire population or a subset thereof is selected, and from these individuals, data are collected to help answer research questions of interest. It is called cross-sectional because the information about the variables under study that is

gathered represents what is going on at only one point in time (Olsen and Marie, 2004). This was achieved using the mixed methods approach.

Mixed Method Approach, according to Creswell & Plano (2007) is strategy to inquiry that chains or links both qualitative and quantitative forms. It involves philosophical assumptions, the use of qualitative and quantitative approaches, and the mixing of both approaches in a study. According to Creswell and Plano (2007), mixed method approach is more than simply collecting and analyzing both kinds of data; it involves both approaches in unison so that the overall strength of a study is greater than either qualitative or quantitative research. Mixed method was used because it is for "complementarity, in which different research methods address different aspects of the phenomenon, and convergence, is not necessarily expected. Findings from the separate components are then fitted together like a jigsaw puzzle" (Smith, 2006). This was achieved by collecting quantitative data and then collecting qualitative data to help explain or elaborate on the quantitative results" (Creswell. 2002).

The Mixed Methods approach was used to collect data to assess comprehensive health care for HIV/AIDS patients within Tamale Metropolis using the three major public health institutions, namely Central Hospital, West Hospital and Tamale Teaching Hospital as a case study.

3.2 Study Area

There are numerous health facilities in the Tamale Metropolis. Among these are the three main public Hospitals: Tamale Central Hospital, Tamale West Hospital and TTH. These three hospitals form the major public health institutions in the metropolis.

3.3 Study Population

The accessible population of the study was defined as healthcare providers and HIV/AIDS patients in the Tamale Metropolis, whereas the targeted population of the study consists of the registered HIV/AIDS patients receiving treatment, HIV Clinicians and Management Staff of the Central Hospital, West Hospital and TTH who are of sound minds regardless of their sexes. This was so because only these people have much knowledge concerning the topic under study. Those health facilities were chosen because they were the three major public health institutions where HIV patients receive treatment in the Metropolis. With these, Management Staff comprised of twelve (12) Senior Staff including the Medical Director, Director of Nursing (Matron), Head of Pharmacy and Head of Public Health were involved in the study. Clinicians also comprised of twelve (12) Caregivers including Doctor, HIV Data Manager, Head of Laboratory and HIV Focal Person were also involved. An estimated number of 1,730 HIV patients follow ups in the last quarter of 2017 at the three major public hospitals in Tamale Metropolis were receiving treatment.

3.4 Sample and Sampling Technique

3.4.1 Sampling Technique

Purposive sampling technique was used to select the Management Staff and HIV/AIDS Clinicians from the three facilities for the study. The purposive sampling technique was used because specific individuals who have direct relation with the treatment and management of HIV/AIDS in the health facilities were required for the study. Again, this category of individuals could only provide the needed information for the study based on their knowledge and experience of HIV/AIDS treatment and care.

Besides, convenience sampling technique was used in recruiting the HIV/AIDS patients. The convenience sampling was adopted because according to Nwadinigwe (2002) when such a sampling technique is employed, all units for the study that the researcher accidentally came into contact with during a certain period of time were considered. Such samples were easy to construct and evaluate. The convenience sampling method also gives easy access to a sample. It is quicker and cheaper than other methods. With this sampling technique in mind, only HIV/AIDS patients from the three hospitals were invited to participate in the study when they came to the hospital for their treatment. They were recruited in close consultation with the HIV/AIDS data manages and Clinicians of the hospitals. Since not all the patients were present on the day of the data collection, only those who were present and were willing to participate were included in the study.

Finally, the study employed quota sampling technique for the selection of the HIV patients from each hospital. This technique allows for specific percentage of respondents to be selected from unequal sub-populations. Since the number of registered HIV patients in each hospital was not same, and the population of HIV patients of the hospitals is known, the total number of HIV patients sampled for the study was divided for the three major hospitals so the number to select from each of the hospitals will be 30.

3.4.2 Sample Size Determination

In all, a sample size of twelve (12) Management Staff including the Medical Director, Director of Nursing (Matron), Head of Pharmacy and Head of Public Health, twelve (12) Clinicians including Doctor, HIV/AIDS Data Manager, Head of Laboratory and HIV/AIDS Focal Person, and ninety (90) HIV/AIDS patients were involved in this study. Four (4) Management Staff, four (4) Clinicians and thirty (30) HIV/AIDS

patients were selected from each hospital. Since the HIV/AIDS Clinicians and Management Staff were purposively selected for the study, scientific calculation of the sample size for this category of the respondents was irrelevant.

In selecting the HIV/AIDS patients, since there is a large number of a person being patients of the case within the Tamale Metropolis, the researcher decided to select a certain number of people who constituted the sample. Consideration was given to the time and cost involved to interview a greater number of respondents who would have been sampled for the study. To this effect the sample size for the HIV/AIDS patients were calculated using the single proportion formula by Taro Yamane;

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = sample size

N = sample frame (population),

e = margin of error

This calculation was done using confidence level of *90%* and *10%* margin of error.

Thus; $n = \frac{1000}{1+1000(0.1)^2}$

$$n = 90$$

In selecting the Clinicians, records available at the three hospitals has it that, a Nurse, Data Officer, Counselor/Focal Person and Laboratory Technician were those

providing care and treatment for HIV patients at the clinics. Because the number of staff providing care and treatment were not large, the author selected all of them from each of the facilities for the study.

Also, with Management, the author selected the topmost senior staff of the three hospitals since they are the main decision-making leaders. They were: the Medical Director, Director of Nursing, Head of Pharmacy and Administrator.

The public hospitals in the Tamale Metropolis are the Tamale Teaching, Tamale Central and Tamale West Hospitals. They are the three public hospitals providing HIV/AIDS care and treatment in the Metropolis. The three hospitals also serve as referrals point for HIV and its related health conditions in the Metropolis. Therefore, the author decided to select all of them for the study.

3.5 Research Instrument

The main instrument used in this research is the questionnaire. A questionnaire is defined as a research instrument (or other types of prompts) for the purpose of gathering information from respondents. As an instrument in data collection, questionnaire enables a researcher to understand the social world from the perspective of subjects (Kvale and Brinkman, 2009).

The questionnaires were developed based on the objectives of the study and in line with the conceptual framework. Three sets of questionnaires were designed for the three respective categories of respondents. When questionnaires are administered between the interviewer and participants, new knowledge is gained and existing ones may be understood in different ways. Questionnaires have closed and open-ended approach as they provide for a high degree of flexibility. The researcher was thus able to seek as much information as the situation or the context allows for without fear of

getting off track from a predetermined list of questions characteristic of other methods of interviewing. The questionnaires were administered face to face. This method was chosen considering the literacy level of the respondents.

Some of the respondents could neither read nor write as observed by the author during his first visit to survey the study area hence requiring interaction between the author and the respondent. Moreover, results obtained from this method were of high quality as it allowed further probing, clarification of items and high response rate.

The research instruments were tested in a pilot survey at Savelugu Government Hospital in the Savelugu Municipality, a sister assembly of Tamale Metropolis. The aim of this exercise was to test the tool and instruments involved. The sampling method, questionnaire, method of administration, respondent approaches among others were all tested. This was to authenticate the accuracy, effectiveness and viability of the survey instruments.

This questionnaire approach however is not without its own flaws. Due to its degree of flexibility, responses may be inaccurate especially through misinterpretation of question in self-completing questionnaires. Also, quantitative data may not be enough to answer the questions you are seeking to answer in your research. More in-depth interviews or focus groups may be needed. Because questionnaire administration involve two persons, unwillingness to cooperate on the part of subjects could also undermine the depth and breadth of information required to understand a social phenomenon from the respondent's perspective. Inadequate or lack of knowledge about subjects' native language and culture might as well lead to misinterpretation and misunderstanding of responses (Marshall and Rossman, 2006).

3.6.1 Recruitment of study subjects

The date, time, and place for each interview were scheduled by the researcher in accordance with what was most conducive and comfortable for the subjects. Interviews lasted for about 35 to 50 minutes. Given the colossal volumes of data and paper work that usually go with data gathering, the researcher engaged two research assistants who were trained on interviewing techniques to help administer the questionnaires

Although English is the official language in Ghana, the interviews however, were conducted in the native languages – Dagbani and Twi (in the case of patients) of which the researcher's assistants were fluent. The choice of the native languages was based on the high illiteracy level in the study community. A determination of the sample size was made based on the homogeneity of the participants and the limited resources of the researcher. The principal investigator was available to ensure that only accredited registered staff and registered HIV/AIDS patients took part in the study. Again, the questionnaires were presented to respondents at their respective units and collected the same day.

3.6.2 Data Collection

The data for the research work were obtained essentially from primary and secondary sources. The primary data was obtained from HIV/AIDS patients, HIV/AIDS caregivers and management staff of each hospital through interviews using a semi-structured questionnaire. The secondary data were obtained from journals, books, annual reports of the respective hospitals and other important and existing empirical literature of scholars. Primary data collection for this study was conducted during the month of February, 2018 using questionnaires as the main data gathering instrument.

3.6.3 Data management and Processing

While being in the field, the data was obtained through questionnaire administration. Data from each day's trip to the field were stored in a much secured place with utmost care. Following the completion of data analysis and presentation of findings, all paper works and questionnaires containing the data were immediately destroyed. The data was cross checked for completeness and detection of errors before cording.

Data was coded and analysed using Statistical Package for Social Scientist (SPSS version 22) computer software. This software analysed the data by grouping the key variables that were identifiable to the information gathered from the respondents. Through this, the study was able to come out with clear picture of the impact and other thematic areas of comprehensive healthcare for HIV/AIDS patients. Moreover, non-parameters which in other ways are related to the study topic within the Metropolis were also identified.

3.6.4 Data Analysis and Presentation

Frequency distribution, percentages and bar charts were used for simple reporting purposes and easy understanding by readers. With the graphical illustration of the answers given by respondents, ample interpretations and explanations were given to them to make them more meaningful to readers.

3.7 Ethical consideration

All ethical dimensions in this study were of utmost interest. The author thus obtained authority letter from the Department of Public Health of the University for Development Studies. The author also had clearance and permission from the authorities of the respective Health Institutions; Tamale Teaching Hospital, Tamale Central Hospital and Tamale West Hospital. Consent was sought from respondents,

and the content of the study, its purpose and rationale was explained to them before the study was conducted. Respondents were assured of confidentiality before, during and after the study and were at liberty to withdraw from the study at any point in time without prior notice of the investigators. Respondents consented to take part in the study by signing and/or thumbprint on a consent form.

3.8 Informed consent and Confidentiality

Informed consent as averred by Silverman (2011) is a 'process of negotiation' between the researcher and the study subjects, and not a 'one - off action'. In order to achieve consent, the author first introduced myself and the research assistants (in some cases) to each subject and subsequently enquired about their welfare and that of their families in line with the customary greetings of the people. The study purpose, risks and benefits were then explained in the local language (Dagbani/Twi) in the case of patients of which the research assistants were fluent. This consent seeking process was devoid of all traces of deception and exploitation (Silverman, 2011). The researcher did again inform the respondents about their right to withdraw from the study or decline any to question they considered inappropriate. Their voluntary consent in the end was sought and participants thumb printed a consent form to participate in the study as well as to permit recording of the information. Confidentiality was also guaranteed by making sure that study subjects were not represented by their names. Other forms of identities and private discussions remained anonymous and undisclosed during and after the study. Full disclosure about the study was again made to participants and their respective concerns were also addressed accordingly (Silverman, 2011).

3.9 Validity

Validity as used in this study also stands for research 'trustworthiness' or 'credibility'.

Maxwell (2005) defined validity as the 'correctness or credibility of a description, conclusion, explanation, interpretation, or other form of account'. A common 'validity threat' that is often discussed in quantitative inquiry and which was considered relevant in this study is the researcher's 'bias', preferably called 'subjectivity' (ibid). It involves the possibility of obtaining data that fits or corroborates the researcher's prior notions, values, beliefs, or even theories. This is conceivable in view of the fact that 'value free' inquiry is hard if not impossible to achieve. Rather, what is important is for the researcher to recognise and take into account how his/her own values and preconceptions might have influenced the study's findings; and the range of measures/steps that were taken to tone down their impact (Patton, 2002). Validity and for that matter credibility in this study was ensured through data triangulation (using multiple or variety of data sources); interviews in this study were therefore not limited to a particular sex or age group's account or experience, but to other sources.

3.9.1 Consistency

Consistency in research, alternatively called reliability, is employed to determine the reasonable degree to which a study's finding can be reproduced by a different researcher (or even the same researcher) in similar or the same social environment. The whole idea of 'replication' in quantitative inquiry is problematic particularly because of its implicit suggestion about the existence of 'objective truth' against which the 'reliability' or 'consistency' of one research finding would be measured. Different layers of complexity associated with human social behaviour and the fluidity of our social world further makes claims or efforts for reliability complicated. Despite the intricacy however, researchers have not abandoned hope in strengthening the reliability of their findings. A varying number of strategies thus exist to that end.

To ensure consistency in this study, the researcher took a number of steps during the interview stage, editing and coding stage, and the analysis stage. Leading questions for instance, were completely avoided in order to obtain unprejudiced responses and experiences of subjects. The researcher did not also hesitate to seek more clarifications on matters that were not clearly understood. Subsequent to the interview coding, one of the research assistants, who was equally fluent in the interview language was made to compare the answered hardcopy questionnaires with the already entered responses in a computer; all his suggestions were evaluated and used appropriately to ensure consistency.

3.9.2 Transferability

When studies are transferable, they are reasonably useful to colleague researchers with similar research problem and under similar social environment. The notion of transferability delineates the extent to which the finding of a quantitative study in context ‘D’ can be generalized to ‘E’, where ‘E’ is a population in a similar or with comparable characteristics. Thus, any new gain in perspective or knowledge is transferable to similar populations irrespective of demographic features (Dahlgren, Emmelin, and Winkvist, 2007). Given the fact that comprehensive health care may vary from settings to settings even though it could be a worldwide problem, the extent to which the present findings would be transferable is difficult to ascertain. Nevertheless, the use of several respondents within the local settings and the explicit description of the methods that were employed are expected to aid concerns for transferability especially in similar populations.

3.10 Expectation

To have enough literature on comprehensive healthcare for HIV/AIDS for future work. To be able to come out with a fair study that which results would lead our

society to achieve the UNAIDS ambitious dream of ending HIV/AIDS by the year 2030 through Comprehensive care and treatment which is factored in the 90-90-90.

3.11 Conclusion

In conclusion, this chapter provides everything concerning the methods used in the data collection, processing and analysis. The details of the results are in the next chapter.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.0 Introduction

This chapter deals with the analysis and discussion of results. The analysis was based on data gathered from the questionnaires administered to assess comprehensive healthcare for HIV patients in the three major public health institutions within the Tamale Metropolis. The results of the data collected are discussed in this chapter. The presentation of the results was done using descriptive and inferential statistics and organized according to the specific objectives of the study. Under the descriptive proportions, simple frequency and percentages tables were used to present the study variables whilst comparisons of independent and dependent variables were also analyzed by inferential statistics. P-values were reported to three decimal places with values less than 0.001 being reported as < 0.001. All statistical tests were two tailed and the level of significance was set at 5%. The presentation begins with the demographic profile of respondents.

4.1 Socio - demographic Characteristics of Respondents

This section of the study presents the results and discussion on demographic findings. Since the research comprised more of quantitative and qualitative or descriptive element, the research made use of categorization of data collected under suitable headings in a tabular form to show the flow of information.

4.1.1 Patients (PLWH)

The demographic characteristics of the respondents include age, level of education (both respondent and household head), gender and others that were relevant to enable the researcher make analysis and recommendations. The results are presented below in Table 1

Table 4.1: Demographic Information of Patients

Demographic Information of Patients

Variable	Response	Frequency	Percentage (%)
Age	18-24	5	5.5
	25-29	10	11.1
	30-34	18	20.0
	35-39	14	15.6
	40-44	14	15.6
	45-49	9	10.0
	50-54	8	8.9
	55-59	6	6.7
	60 +	6	6.7
Gender	Male	16	17.8
	Female	74	82.2
Marital Status	Married	47	52.2
	Separate	14	15.6
	Widowed	17	18.9
	Single	12	13.3
Educational Level	Never been to school	45	50
	Primary	12	13.3
	JHS	11	12.2
	Secondary/Technical	14	15.6
	Tertiary	8	8.9
Religion	Catholic	4	4.4
	Protestant	1	1.1
	Pentecost	3	3.3
	Charismatic	18	20.1
	Islam	64	71.1
Occupation			
	Trading	45	50
	Civil Servant	8	8.9
	Self Employed	22	24.5
	Not Working	16	16.6
Monthly Income	GHS 50-100	34	37.8
	GHS 101-200	27	30
	GHS 201-300	4	4.4
	GHS 301-400	5	5.6
	GHS 401-500	9	10
	GHS 501-1000	8	8.9
	GHS 1001-1500	3	3.3

Source: Field Survey, 2018

The findings on age show that slightly more than a third of the sample (31.1%) was aged 25-44 years. In all, 18.9% were between 45-54 years, 13.4% were over 55 years, and 5.5% were between 15-24years. The results indicated that the far majority of the samples (82.2%) were female whiles 17.8% were male. Results on marital status of respondents show that majority of them representing (52.2%) were married, while (18.9%) were widowed, (15.6%) were separated and (13.3%) were single. On educational background, the findings show that half of the respondents (50%) have never been through formal education; 15.6% had Secondary/Technical background, 13.3% had Primary background, 12.2% had JHS certificate and 8.9% had tertiary education. On religion of the respondents, majority of them (71.1%) were Islam, (20.1%) were Charismatic, (4.4%) were Catholic, (3.3%) were Pentecostals and (1.1%) was Protestant. The fact that there are more Muslims reflects the general situation of the Northern Region. In this wise, it is not the situation that Muslims are more prone than other religious groups towards HIV/AIDS infection. On occupation of patients, half of the respondents (50%) were traders, 24.5% were self-employed, 16.6% were not engaged in any economic activity, and another 8.9% responded they were civil servants.

4.1.2 Clinicians at the Hospitals

The findings also indicated that for majority of patients their average monthly income was around GH¢ 50-100 by (37.8%), followed by (30%) who earned GH¢101-200, (10%) earned GH¢ 401-500, (8.9%) earned GH¢ 501-1000, (5.6%) earned GH¢ 301-400, (4.4%) earned GH¢ 201-300 and (3.3%) earned GH¢ 1001-1500. The results shows that slightly more than half (51.2%) of People Living with HIV (PLWH) reporting to the Health Facility under study belong to the age group between 30-44 years. With respect to the gender component, females were predominant with a

percentage of (82.2%) as against males with (17.8%). Even though this is to be expected as a reflection of the national data (more females than males infected in Ghana), within the context of this study however we may conclude that more females than males patronize the target health facilities for treatment. The study also revealed that, per marital status, slightly more than half of the respondents (52.2%) were married with the rest being separated (15.6%), widowed (15.6%) and single (18.9%). A half of the total number of respondents (50%) was illiterate. On the aspect of occupation, 50% of the respondents were traders, 28.8% were self-employed, 8.9% were civil servants, 6.7% were farmers, and 5.6% were housewives.

One indicator for quality of services is related, among other factors, to the characteristics of the service provider and how they are perceived by patients. The gender of the service provider may be important in accessing health care especially where a dominant patriarchal system and religion tend to register segregation of sexes especially in issues concerning sexuality and the family. In this sense the situation may demand some sensitivity to the concern that service providers should be the same gender of the patient to guarantee privacy and confidentiality. In this study therefore, efforts were made to find out whether health authorities consider the mix (in terms of the sex of health personnel) and also duration of working experience of health personnel who are charged with providing services to PLWHA (Table2).

Table 4.2: Demographic Information of Clinicians

Demographic Information of Clinicians

Variable	Response	Frequency	Percentage
Age	26-33	3	25
	34-41	2	16.7
	45 and above	7	58.3
Gender	Male	6	50
	Female	6	50
Working Experience	Less than 2 years	1	8.3
	2-5 years	5	41.7
	6-10 years	6	50

Source: Field Survey, 2018

Perhaps because of the sensitive nature and complications associated with the situation, the findings show that the respective health facilities designate relatively older and also more experienced health workers for PLWHA care. The results indicate that in all the health facilities under study, the situation was considered to ensure that service providers were of both sexes. Four health personnel were assigned in each of the clinics respectively for the care of PLWHA and this number was equally divided by sex. Those put on this schedule were also relatively more experienced health workers. Almost all the personnel (91.7%) had either worked for between 6-10 years (50%) or at least between 2-5 years (41.7%) on the job.

4.2 Patients access to quality HIV treatment and care

Access to quality treatment and care for HIV patients is a major indicator for quality of care and therefore important in this study. The study adopted the Specific quality of service indicators developed by the Regional Community Treatment Observatory (RCTO) unit to assess patients' access to HIV treatment and care. Indicators used included: number of patients reporting having received required medication during hospital visits; number of patients reporting staff ability to carry out test on patient

regularly; number of patients reporting that staff carry out medical diagnosis on patient regularly; number of patients reporting that staff carry out medical diagnosis on patient regularly; number of patients reporting that they receive HIV/AIDS counseling regularly from hospital staff; and the number of patients with the perception that the Health Facility has specialized team of HIV professionals dedicated to providing the service.

4.2.1 Reasons for not accessing

In the first place, respondents were asked to indicate why they think the public generally finds it difficult to come for voluntary HIV testing to facilitate early diagnosis and treatment. Table 3 gives a summary of the findings.

Table 4.3: Reasons for unwillingness of some individuals to access voluntary HIV testing

REASON	PERCENT
Fear of knowing that one is HIV positive/ignorance is bliss syndrome	73%
High stigma label around HIV and AIDS	83%
Inadequate confidentiality at the ART/STI facility (facility nurses)	87%
STI/ART Centre is Open and carries stigma	76%
Key populations including Female Sex workers (FSW) and Men who have sex with Men (MSM) are particularly vulnerable because of the Religious environment. The fear that Health professionals could disclose their sexual orientation and identity	22%
Self-stigmatization	67%
Fear of being forced into divorce upon disclosure	66%

Multiple responses possible

Source: Field Survey, 2018

The Table shows major concerns of people about voluntary HIV Testing. Even though the issues seem identical, the major concerns are related to the fear of stigma in the community and also lack of trust in confidentiality provided by health professionals. Key Populations including Men-who-have-sex-with-Men (MSM) and Female Sex Workers (FSW) said they feel vulnerable because of the volatility of the environment with religious zealous youth seemingly waiting for the least provocation to show loyalty to religious dogma by harming members of society they see as sexually deviant. The Table further suggests that there are those who also harbor fear because they already suspect their susceptibility to the health problem and are afraid of being confirmed. As one informant put it;

> *The effect of knowing your status creates the indelible death mark. The reaction of society alone can kill you. In this situation, not going round searching for your HIV status makes life go on without inviting trouble. Becoming an outcast kills faster than AIDS. After all, if you don't feel sick, it may take very long before you eventually break down …*

In this situation, being ignorant of your HIV status is seen as bliss, at least in the short run. This situation certainly has implication for late diagnosis and therefore brings delay in management of the health problem. The 'reaction of society', the social perception and negative attitudes associated with public disclosure of HIV status therefore become key barrier to voluntary HIV testing.

The issue of religion as moral order that inadvertently propel discrimination has been variously noted. Religious doctrines are noted as creating a negative aura around PLWA generally and especially for key populations including MSM and FSWs. The fear of open hostility by zealots; being branded evil and promiscuous become a

paramount concern preventing disclosure to family members and even spouses. In such a social environment, unless compelled beyond all odds by physical and health challenges, ignorance of one's HIV status is bliss, at least in the short run. As long as people do not have symptoms showing, they prefer to assume that they are safe from HIV infection.

Associated with this notion is the undercurrent and cultural meaning that "*going out to seek for proof when there is no sign of being sick... connotes attracting negatives to oneself.*" One respondent noted that:

> *Normally, you are not to think negatively about yourself. Going out to test is like not believing in yourself or wishing for oneself this bad omen. Culturally it is believed that what you fear could happen to you and therefore everyone is to think positively about self never giving into doubt. To go for a test means you doubt and in a way, you are spiritually inviting trouble where trouble should not be.*

The argument above may be associated with the cultural definition of disease. It is often argued that the fact that not everyone exposed to a germ becomes sick means that being sick at a given time is more than the issue of germs. In the cultural notion, there is always a spiritual dimension to such difficult health problems often associated with fate, punishment or curses/juju. In this sense, testing to know one's HIV status invites self-doubt and its psychological sequel of not being strong spiritually manifested later physically in not being able to ward-off external intrusion. Modern Faiths also seem to have similar ideas about the relationship between the environment, agent and susceptibility to this health problem. One Charismatic Christian respondent noted that:

The difference is faith! If you have faith like the mustard seed, your body has the natural antidote to all those ailments. Go read Psalm 91. That God delivers us from the 'snare of the fowler, and from the noisome pestilence .... a thousand shall fall ... but it shall not come nigh thee...

From such a perspective, it is obvious that the more individuals attribute "pestilence" to evil forces, the more the tendency is to seek spiritual protection rather than admitting susceptibility to the problem. The moral society stands tall over the rules spelt out and the idea that disobedience justifies curses as source of the health problem. The caveat here is that much as morality by doctrine may help in sexual abstinence outside marriage or ensure fidelity within marriage which in effect augments the health notion of preventive measures, there are a number of other modes of infection of HIV that are outside the domain of direct sexual acts. Cases like blood transfusion, mother-to-child transmission (during pregnancy, labor and delivery, or breastfeeding), and encounters in which bodily fluids are exchanged unknowingly or even a prick by infected sharp items. In that sense, the health problem is not just a 'moral issue' but also a systemic concern which may involve responsibilities and precautions beyond individual personal efforts per se into the collective.

4.2.2 Patients' Perception of access to quality HIV treatment

Another question sought to explore whether respondents were able to get the required medication whenever they reported at the health facility (Table 4).

Table 4.4: Patient perception of access to quality HIV/AIDS treatment and care

Variable	Response	Frequency	Percentage
Ability to get required medication during hospital visits	Strongly agree	57	63.4
	Agree	21	23.3
	Uncertain	12	13.3
Staff carry out test on patient regularly	Strongly agree	24	27
	Agree	16	18
	Uncertain	21	23
	Disagree	29	32
Staff carry out medical diagnosis on patient regularly	Strongly agree	61	67.8
	Agree	19	21.1
	Uncertain	10	11.1
Receives HIV/AIDS counseling regularly from hospital staff	Strongly agree	73	81
	Agree	14	15.5
	Uncertain	3	3.3
Receives HIV/AIDS education regularly from hospital staff	Strongly agree	81	90
	Agree	7	7.8
	Uncertain	2	2.2
Hospital has specialized team of HIV professionals	Strongly agree	69	76.7
	Agree	12	13.3
	Uncertain	9	10

Source: Field Survey, 2018

Table 4.4 gives the perception of respondents regarding some indicators of quality of service provided to PLWA in the target Health Facilities. Generally, the far majority of respondents agree that the service rendered to PLWA is adequate in areas like: HIV/AIDS education (90%); regular HIV/AIDS counseling services (81%); and that the target Health Facilities have specialized team of HIV professionals (77%).

However, it is equally important that Table 4.4 draws attention to other areas of service provision that is comparatively low in the perception of patients. These include the finding that majority of respondents (73%) either disagreed completely (32%); were “uncertain” (23%) or quite skeptical (18%) about Staff carrying out test on patients regularly. A sizeable proportion of respondents (37%) also have some misgivings about the ability of the facilities to provide required medications always

during hospital visits. Slightly more than a third of respondents (32.2%) were also not quite satisfied with the level of attention given by Staff in relation to carrying out medical diagnosis on PLWA.

Even though majority of respondents (63%) claim they got the required medications any time they visit the health facilities, a special attention is drawn by the fact that more than a third (37%) of respondents reported that they do not get comprehensive services. Efforts were therefore made to find out why such a sizeable proportion reportedly does not always get comprehensive services. Issues relating to availability and accessibility become crucial in this question.

Respondents were first asked to give reasons for PLWA not accessing ART easily. Findings show that only 8% of those who complained about services not being comprehensive enough related this to distance to service delivery points. Contrary to expectation, the overwhelming proportion (92%) did not see distance as a major accessibility problem. The general impression given is that the *'further the service delivery point the better* 'for the PLWA. Yahaya (a 36 year old male member) explains the situation as follows:

> *I live in Yendi a community far from Tamale. Even though in Yendi there is a hospital just few meters from my house offering the service, I prefer to travel far to access service from Hospital A in Tamale. For me, despite the cost of travelling, I feel safer and it is more convenient because of the fear of being stigmatized - Yendi is my home and my people could easily find out my status. If that should happen, I would be so discriminated against that I may become outcast. Travelling far*

away from my community makes me anonymous and helps me avoid all the insults and prejudice associated with PLWA.

From Yahaya's assertion, availability of the service in relation to distance may not necessarily mean accessibility. The further away the service delivery point, the better it is for PLWA. However the caveat that only few individual PLWA can afford to travel regularly out of their immediate community to collect medication from far away service points may still be a hidden factor in people not being able to readily get quality service. Some respondents especially those who find it difficult to afford to travel far out for service, even though that is what they prefer, recognize the ambivalence they face – to avoid the opportunity cost related to privacy confidentiality and disclosure in accessing health facilities close by. The alternative innovation is that they have created a network of PLWA so as to benefit from those who can afford to go to the center and collect medications for distribution to those who cannot. However, as to be appreciated, this arrangement may defeat the purpose of comprehensive services including regular checkups necessary for effective management of the health problem.

Findings suggest furthermore that more than half of respondents (55%) are of the opinion that they do not get the regular examination required when they visit the hospital. Mr. Issifu (43 year old patient) explains his frustration as follows:

My major worry is that I hardly get any thorough examination when I go to this Hospital. I realize that it is usually the routine of asking how you are and if you are taking the drugs on time. That is usual of the health worker here. But issues that are more critical like knowing about my viral load so as to assess

how I am doing generally is not addressed. The machines are down and I wonder whether management is even concerned…

Mr. Issifu's concern has been expressed variously by some other respondents and also Service Personnel. If we read the views of Mr. Salifu with Table 4.4, it seems contradictory that the majority of respondents (68%) feel they have no complaints about quality of service provided at respective health delivery points. Majority of respondents (81%) for example received HIV counseling regularly and almost all have HIV education any time they visit the hospitals (90%). Indeed this is a very good outcome. HIV counseling and education are very important aspects of comprehensive healthcare for PLWA. It helps them to be well informed about all what they need to know. These include: testing, discloser, medication, diet, window period (healthy carrier), reducing multiple sex partners and regular and proper use of condom where necessary, and management of opportunistic infections, family support, and empowerment, socialization, stigmatization, and discrimination issues. The overwhelming majority of respondents (90%) believed that their caregivers are professionals specialized in giving HIV care and treatment.

Despite this positive assessment however, for patients like Mr. Salifu, the bottom line of all services provided under HIV treatment is to achieve undetectable viral load status. This understandably is an important indicator of the patient's health and of the effectiveness of the treatment given at service delivery points. For Mr. Salifu therefore, all efforts in service centers should culminate in the basic indicator of 'number of PLWA achieving undetectable viral load status.' He is of the opinion that where the facilities cannot ascertain that PLWA taking HIV treatment have their CD4 count gradually increasing then the effectiveness of the treatment becomes lost.

For Mr. Salifu, once the patient starts taking HIV treatment, it is important to show the patient that the viral load is falling and that the CD4 cell count is likely to increase gradually even though the rate at which this happens can vary a lot between individuals. This would bring encouragement to the group of PLWA as well as help advocate to the many who are infected but have doubts about the efficacy of the service. This calls for routine viral load testing. The challenge however is because the machine was down this becomes impossible.

Another challenge noted by some respondents is that in all the hospitals, services to PLWA were largely left in the hands of Nurses and Midwives given some on-the-job training to attend to PLWA. There was no Medical Doctor or Medical Assistant directly responsible for providing care and treatment to patients at the HIV clinics.

Just like Mr. Salifu noted, the concern for PLWA is that, for some, the service they demand is not readily and always available in the given Hospital. Ali (42 year old man) explained this predicament as follows:

> *My concern is that even though the hospital has the machine for viral load testing yet for a very long time the machine had broken down and was never repaired. Because of this situation, even if you get there to make the test, you would never get the results readily. It is completely useless waiting because the suspense alone is hell. You better go praying than to put all your hopes in the personnel and the machine. Naturally it is not priority for the facility and also the government.*

Accessibility of Viral Load testing (VLT) is considered central concerns for all respondents since it gives hope and a measure of survival. Even where the VLT is available, accessibility is made difficult because of the negative attitude of some

service personnel. Madam Fati (42 year old female Banker) said she would rather stay away than to suffer embarrassment from some health personnel at the VLT point.

> *Some health workers at the testing facility make things quite difficult for me as a patient. Certainly they know they cannot get any favours like gifts from me and therefore you can imagine how they treat you like rubbish …no dignity is accorded you at all. You cannot ask any questions without the rude retort and that for someone like me is really disturbing* (Madam Fati, 42 year old female Banker).

Madam Fati is aggrieved by the bad treatment meted out to her and especially to less privileged, mostly uneducated PLWA by health personnel. She observed that the negative attitude of some health personnel is prompted by the wrong notion that PLWA are "moral degenerates for which the punishment of God was unleashed upon them." Taking what is assumed to be "God's side in this situation means avoiding becoming equally yoked with sinners". Madam Fati's major concern therefore is that some health personnel are very judgmental and unfortunately use religion to justify their position. For Madam Fati, the issue of HIV infection goes beyond the notion of sexual promiscuity per se to include socio-cultural factors that facilitate HIV infection as a phenomenon. The individual is not always culpable for the situation.

Other patients however could not access the service either because 'the VLT requires payment and I can't afford it' or because 'I don't want to take ART because the side effects make me sick' and yet some said they were not clear on guidelines regarding how often to go for a VLT. For some therefore affordability is an issue but for others, poor communication on the issue and the fear of side effects of the drug is a major concern.

4.2.3 Reasons for Stock outs

Given that some PLWA noted stock-outs of essential drugs, efforts were made to explore why the situation is recurrent. Interviews with personnel responsible for the programme show diverse reasons why PLWA do not always get the required medications. Explanations given by programme managers from respective facilities suggest that the problem is related to both difficulties in accessing required drugs from the Medical stores and sometimes from Government inability to provide the necessary support for essential drugs to be imported. Management summarized the problem under 3 issues – Difficulties with procurement of Drugs by the Government; Difficulties with accurate forecasting; and internal transportation difficulties. Table 4.5 gives a summary drawn from the records of Hospital A explaining drugs stocked out, for how long, and reasons given.

Table 4.5: Summary of stock-outs between 2016 and 2017 in Hospital A.

Name of ARV that is stocked-out ❖ Nivapine suspension ❖ Abcavire suspension	**Indicate the number of days of ARV stock-out** ❖ 2 months	**What are the reasons for the stock-out?** ❖ Regional Medical Stores did not have ARV
Type of lab equipment stocked out (reagents and chemicals, consumables and/or durables) ❖ No machine	**Indicate the number of days of stock out of viral load test lab supplies** ❖ Since 2014	**What are the reasons for the stock out?** ❖ There is only one machine which serves the whole region and it is only at Tamale Teaching Hospital.
Type of lab equipment stocked out (machines, analyzers and/or instruments) ❖ Chemistry analyzers ❖ CD4 analyzers	**Indicate number of years stock out of viral load test lab equipment** ❖ 2 years	**What are the reasons for the stock out?** ❖ The hospital did not receive reagent funding from NACP

Source: Secondary data from Hospital A record books

Table 4.5 shows that some services were either limited or were not easily accessible to PLWA at this service delivery point. Interview with the focal person for HIV at Hospital A gives the challenges facing the program in relation to why stock-outs:

> *Even though measures are put in place to avoid stock-outs, it is a common phenomenon in some cases. Sometimes the problem relate to the fact that quantification levels estimated may be far lower than the demand at a time. In other times it may be due to the inability of the facility to pay for the order for all ART sites. At a given time, the drugs may not even be available in the country or the government may fail to*

supply a given drug as regularly as expected. Even if drugs are imported, it may be limited and therefore distribution would be far below demand. In other cases, the site may be relying solely on supplies from a donor and whenever there is a delay then stock-outs result (Focal Person, Hospital A).

Another source of challenge that brings stock-outs is as a result of transportation gap.

In other cases, when drugs arrive at the Medical store, conveyance from the Medical store has its own intricacies including logistical problems that are local. For example, two months ago, even though the drugs were available at the Medical Store, the hospital did not get the right vehicle to transport ARV consignment to the point of service delivery and on time (Focal Person, Hospital A).

The Focal Person further explained that stock-outs may also happen largely because of government's inability to order some particular drug needs at some periods.

For example, there has been shortage of pediatric drugs (ARV) for the past four months in the country. This is mainly due to the fact that our Government tends to over depend on free donations for supplies. The beggar has no choice. We cannot therefore have complete control over when these essentials arrive or their availability for use when needed (Focal Person, Hospital A).

A weak chain of supply due to poor logistical arrangement produces its own sequels. The Focal Person explained that delays for whatever reasons including timely conveyance to health facilities create a sequence which negatively affects the delivery chain culminating in stock-outs.

> *It is quite common that because of poor communication within the logistics chain and an inefficient management information system, these essential drugs are kept in the stores and information may never reach health facilities until stock taking reveals it is close to expiring then there is often the rush to damp-off on health facilities*(Focal Person, Hospital A)

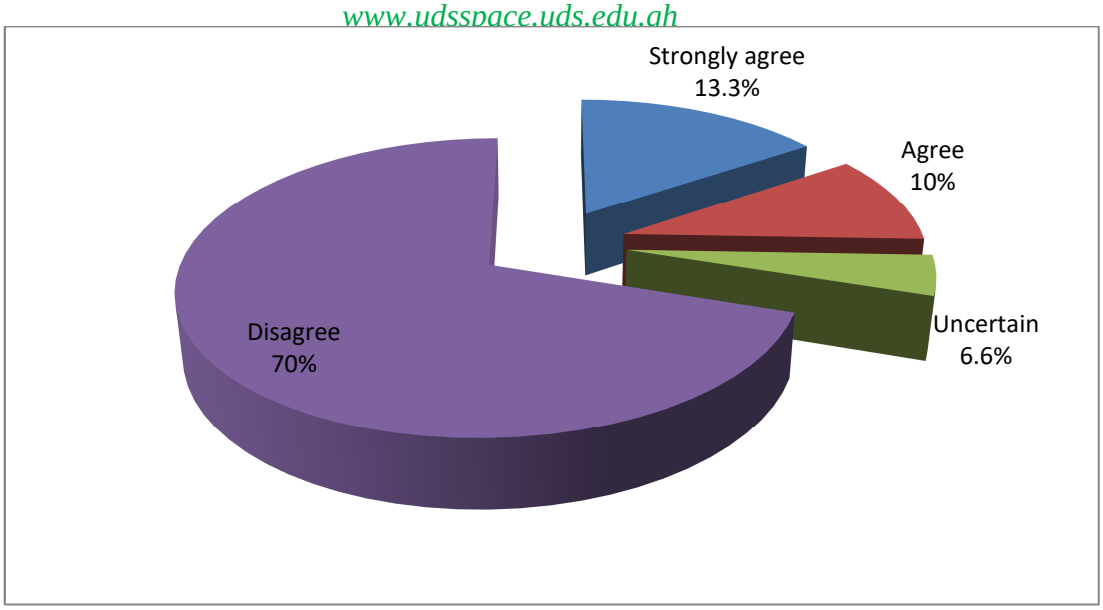
The findings therefore suggest diverse reasons as responsible for stock-outs generally. Key informant interview suggests that drug stocks-outs as well as near-expired supplies (ARVS, OI drugs, HIV test kits) are common phenomenon. This is mainly due to poor quantification and forecasting at central and facility level. There is also generally poor skills in using tools at central and facility level; poor transportation chain because there is poor coordinated system for timely delivery and therefore this is done in haphazard manner, sometimes not taking into account volumes requested. There is also bureaucracy in the approval for delivery which delays the supplies. Limited access to functional CD4 testing (both conventional and point of care) was also noted. Patients have to incur out-of-pocket-cost travelling to alternative locations for services. There is also the issue of long turn-around time for results based on proximity to central laboratory.

The findings in relation to stock-outs suggest a huge communication gap between PLWA and health personnel regarding quality of services. The seeming contradiction

between the fact that the overwhelming majority of PLWA (63.4%) said they were 'able to get the required medication each time' they visited the health facility against the fact that stock-outs are a regular phenomenon registers a level of incongruity. This may suggest that because of the expressed communication gap between health providers and PLWA, patients, as lay people, do not question service providers or may not have knowledge about what medications to expect at every visit. In this sense, poor communication could enforce a pattern of behavior in which the patient becomes dependent on the goodwill of the health provider. This codependency syndrome may make it difficult for patients to question attitude of health providers or ask questions related to medications provided or not provided.

4.3 Support Groups for HIV patients

HIV support group is important in the management of the health problem. It is also important in helping PLWA to socialize and share information and experiences about their situation. This may especially be supportive for newly diagnosed patients and the old who are losing hope. In this regard, respondents were asked whether they agree that their respective health facilities have a viable support group organized. The findings are shown in figure below.



Source: Field survey, 2018

Figure 4.1: HIV/AIDS Support Group Organized by Hospitals

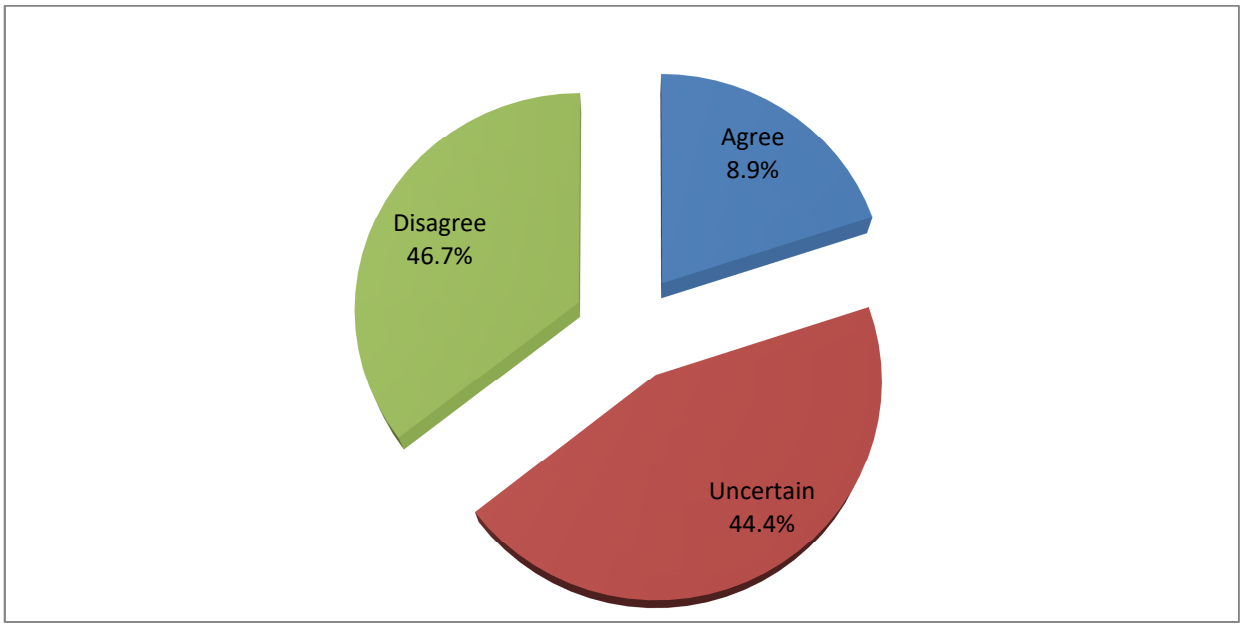
From Figure 4.3, findings show that, majority of the respondents (70%) do not belong to any HIV/AIDS support groups. Only 23.3% of respondents belong to support group organized by the hospitals to help them improve quality of life whiles about 7% of respondents were not sure.

Some respondents who do not belong to the support group noted that they live in neighboring communities rather than the city of Tamale and therefore only come to the hospital for the regular drugs when due. Issues that make it difficult for them to belong to support groups include; transport costs, time needed for meetings and the fear of stigma once outsiders know about these groups.

It must be noted however that the respective health facilities depend on other partners especially NGOs to organize support groups. The sustainability of Support Groups largely depends on these partners and not the hospital authorities. Sustainability of Support Groups has variously been noted as a challenge.

4.4 Patients' views on HIV/AIDS programs at the hospitals

HIV special programs are organized by health facilities for PLWA to improve on their quality of life by encouraging them to remain productive and self-encouraged to support their family and become ambassadors in their society. In this study therefore, efforts were made to find out whether the target hospitals have any special HIV/AIDS programs to support PLWA. The result of this is shown in figure 5



Source: Field data, 2018

Figure 2.2: Patients' views on HIV/AIDS programs at the hospitals

From Figure 4.2, only a very small proportion (about 9%) agrees that health facilities are helpful through special HIV/AIDS programs to help PLWA improve income. Indeed the inability of some PLWA to sustain their economic livelihoods after becoming sick may bring poverty to the family.

The study further sought to explore regular attendance at the HIV Clinic by patients and if there are associated challenges. One respondent explains his situation as follows:

I must admit that even though I know the importance of routine checkups at the clinic, circumstances do not always enable me to patronize the clinic as scheduled. For example, there are times that I miss the scheduled dates for treatment when I am feeling ill. Sometimes too I am unable to come because I do not have money for transport. Because I don't have any work doing now and nobody is helping me currently since my husband passed away ***(Madam Y, Hospital B)***

Like Madam Y, some respondents noted that routine attendance at the clinic is crucial but irregular patronage is because of some complications. A number of respondents noted that in crisis, they hardly find family members supporting them to attend. Interestingly, the issue of distance to service points becomes relevant in explaining the situation. On the one hand, patients become resolute not to disclose their HIV status to even immediate family members/care givers for fear of reprisal and neglect. In addition, at least in the short run, some assume that putting a big distance between them and the service points of their choice will contribute to confidentiality through anonymity. But, as noted by Madam Y, this decision has its own negative effects when patients are unable to afford travelling for services eventually. Further discussions also reveal that because patients hardly disclose their status to immediate family members, when patients are in crisis, no family member could know what to do or where to go for drugs. Unwillingness of the patient to disclose HIV status creates a communication gap within the family therapy group which in turn produces negative repel effects including mistrust heightening suspicion.

Yet there were those who said they kept in line with routine checkups no matter how difficult because that is their lifeline.

Yes I always attend clinic sessions as scheduled because I do not want to breakdown at all. Because I know that if I take my schedule seriously one day hopefully, I will also be tested negative like people who told me they have regained that status upon attending clinic on scheduled dates ***(Hospital A)***

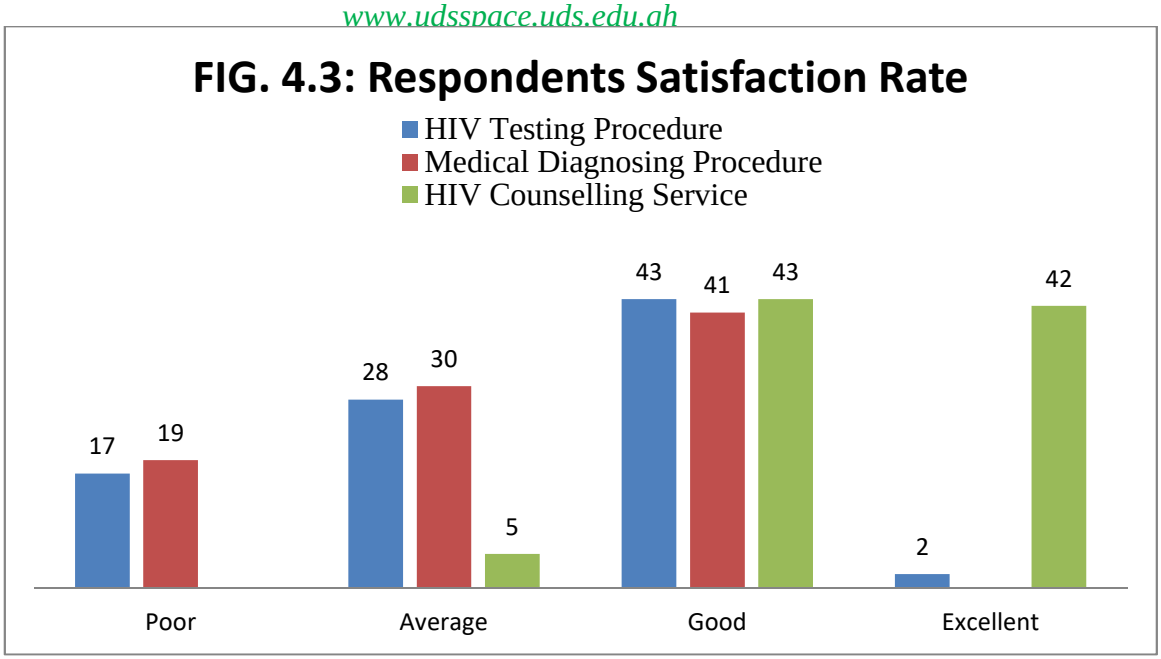
Another person said

I always attend the clinic for my treatment on the scheduled dates because my counselor told me to take the drugs seriously for the rest of my life. She told me if I continue coming to the hospital and taking my medicine I will one day have my viral load depressed and that will lead me to test negative. I also know that at that time I cannot spread nor have all these problems again. Because of that I don't play with my date. I am also a member of "model of hope'' so I am always here to assist my fellow PLWA anytime they come to the ART clinic to collect their drug ***(Hospital C)***

It is encouraging that some respondents have knowledge about the relationship between routine checkup/adherence to medical advice and the eventual reduction in viral load. This implies that education on importance of ART has gone down well and PLHA are well informed.

4.5 Patients satisfaction rating of treatment procedures

HIV testing procedure, Medical diagnosis procedure and HIV Counseling services are very important sessions in the management of HIV generally. Proper administration of these procedures is therefore a crucial determinant of quality of services to PLWA patients. In this study therefore, efforts were made to find out what respondents think of the services generally.



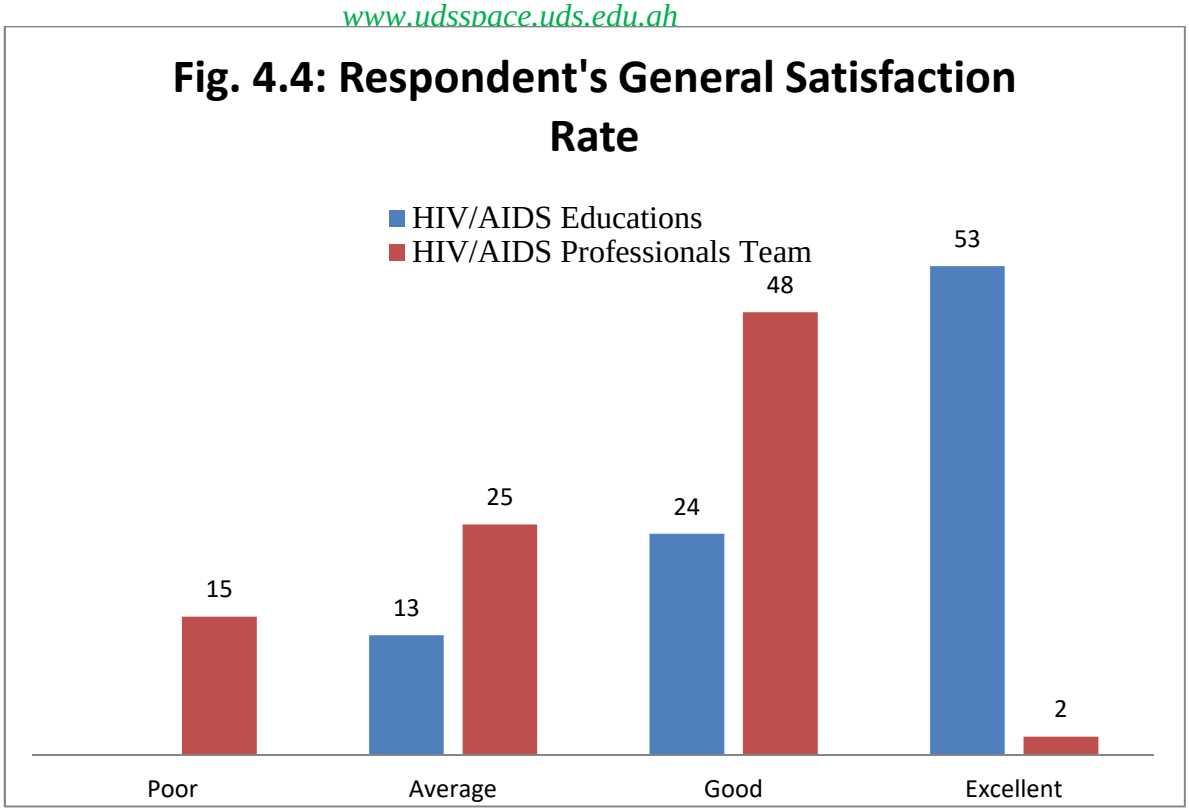
Source: Field Survey, 2018

Figure 4.3: Patients satisfaction rating of treatment procedures

Figure 4.3 illustrates respondents 'perception of the quality of HIV testing procedure and medical diagnosis. The findings indicate that majority (85.2%) of respondents think HIV testing procedure at the hospitals are good; 78.9% against 20.1% of respondents see their access to medical diagnoses in the hospitals as generally good; and almost all respondents (94.4%) claimed HIV/AIDS counseling services was high. The findings suggest quite a good image of the services provided at the various health facilities for PLWA.

4.6 Patients' views on HIV Education and Professional Team providing care

Here, the focus was to find out whether HIV/AIDS patients are satisfied with the education they receive at the hospitals. This, to a large extent would help the patients to have better knowledge of the situation. Knowledge could be transferred into practice and therefore enhance the welfare of PLWA (Figure 4.4).



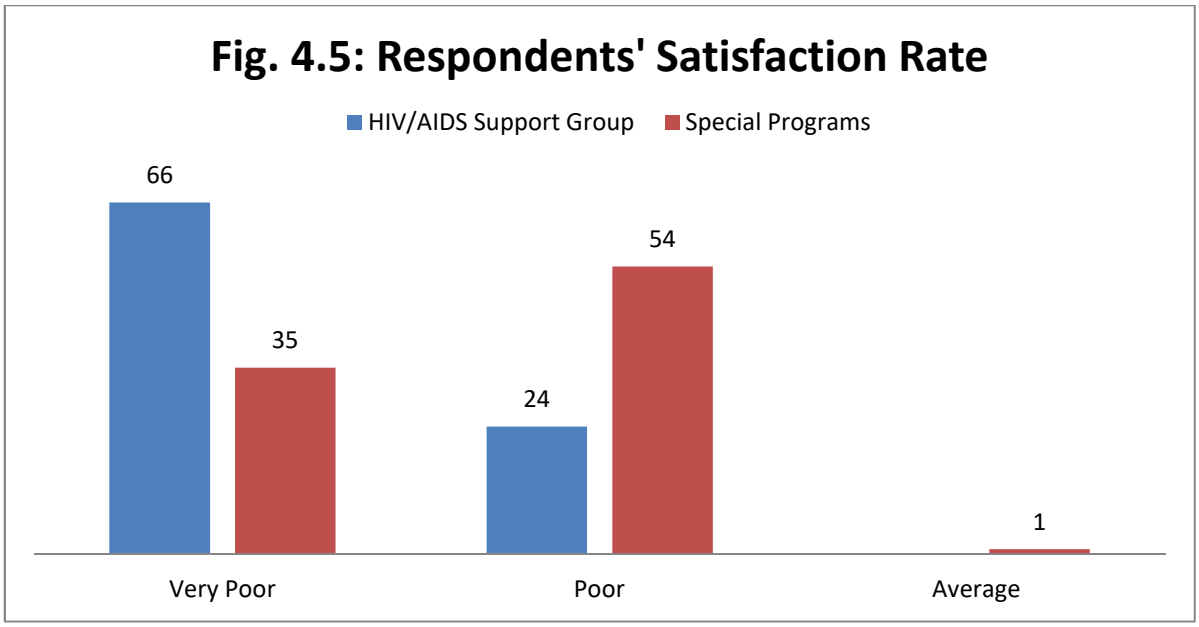
Field Survey, 2018

Figure 4.4: Patients' views on HIV Education and Professional Team

On HIV/AIDS education in the study area, it indicates that 58.9% of the respondents experienced excellent services, 26.7% claimed the service was good and 14.4% said it is average. Slightly more than half (53.3%) of respondents think the team of professionals at the respective health facilities for HIV/AIDS care was generally good and 2.2% said it was excellent. It is important however to note that quite a sizeable proportion of respondents (about 45%) had some misgivings about the quality of services provided by professionals at these centers.

4.7 Patients satisfaction with HIV support group and special programs at the hospitals

The study wanted to rate patients' satisfaction with regards to HIV/AIDS support groups and special programs put in place for them by the hospitals. Such support programs are intended to help improve the quality of life of patients. Some of the programs are aimed at financial empowerment and sustainability. Figure 4.5 shows the perception of respondents in relation to their satisfaction about the service.



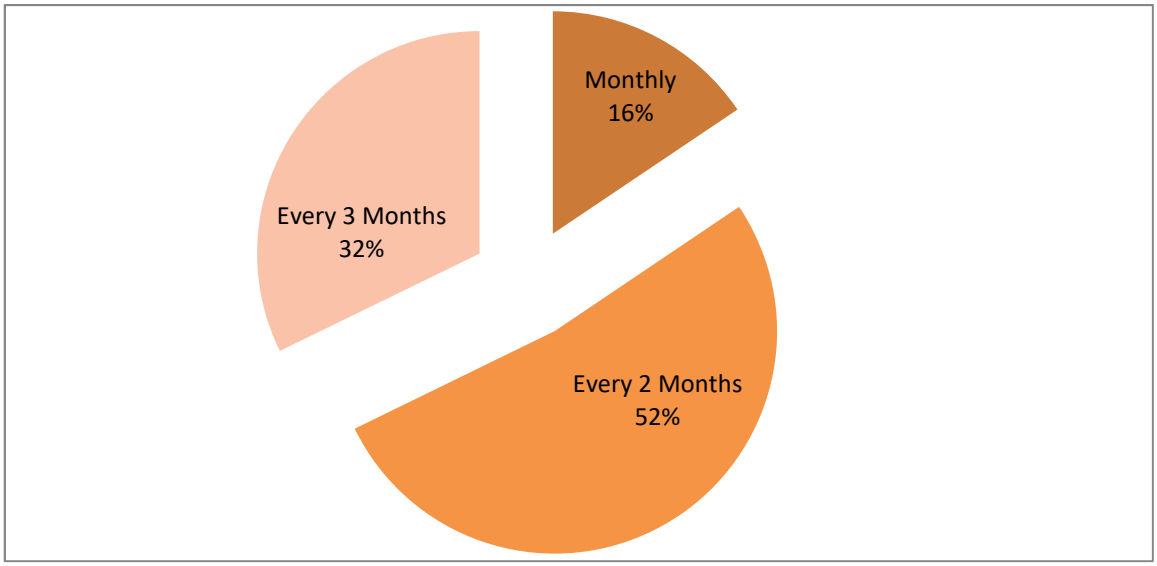
Source: Field Survey, 2018

Figure 4.5: Respondents Satisfaction Rate

Figure 4.5 shows that every respondent except one person (98.9%) thought the support group in the hospitals is poor and that they hardly benefit from any special programs for improving the income of PLWA.

4.8 Institutional Arrangement for HIV Care and Treatment

Guidelines for HIV/AIDS treatment provided by GHS indicate specific procedures and what is expected of both patients and Service providers. Under this category, information obtained from respondents was centered on the rate at which patient's visit hospitals for treatment and care; as well as specific care mechanisms used to check on patients who fall out of treatment. This aspect of the study reveals the frequency of patients visits to the hospital. That is whether on monthly basis, bimonthly or in three months' time with the respective number of people who pick any of the options. It is believed that, when the clinics have these measures in place, it helped to monitor closely the condition of the patient for better health (Fig. 4.6).



Source: Field Survey, 2018

Figure 4.6: How often patients visit health facility for HIV/AIDS care and treatment.

Figure 4.6 represents schedule dates for PLHW visit to the hospitals. Though the National treatment guideline (NACP report 2016) says PLWH would visit the hospital for treatment monthly, the study shows that the far majority of respondents (84%) visit every three months because they are given enough drugs. Majority (52%) of

PLWH visits the clinic bimonthly and slightly more than a third (32%) visit the facility once in every 3 months. A further probe reveals that because health institutions feel overwhelmed, they have made arrangements with patients to reschedule visiting times even though this is contrary to the guidelines. Facility Managers explain that rescheduling becomes important to ensure that visits coincide with availability of resupplies of drugs in the light of recurrent shortfalls.

Some respondents think the rescheduling is more convenient to them also:

> *I attend the hospital in every two months because my medications always cover two months period before it finishes. Also, I am always busy with my business so I do not have enough time to visit the hospital on monthly basis.*

Again, distance to service delivery point and also time spent in the process becomes important in keeping in line with the guidelines. Where work situations make it inconvenient, respondents prefer a more flexible arrangement than specified by the guideline. However there were those other respondents who said they visit hospital facilities every month on schedule because they deem it essential and that they could afford it.

4.9 Cross tabulation of age and frequency of visit to hospitals

The table below is a cross tabulation of age of patients and frequency of visits to hospital for HIV/AIDS treatment and care. This attempt was to draw a clear picture in relation to the active age group corresponding to their visits to the hospitals, whether one's age has any impact on their visits or not.

Table 4.6:Cross tabulation of age and frequency of visit to hospitals

Variable	Monthly	Every 2 months	Every 3 months	P-value
18-34	16.6%	46.2%	37.2%	
35-44	34.7%	37.5%	27.8%	0.003
45+	27.9%	56.7%	15.4%	

Source: Field data, 2018

The analyses in Table 4.6 compared age strata of respondents and frequency of visits to hospitals by a chi – square distribution, the findings showed that there was an association between age status of respondents and the frequency of visits to the hospital (χ^2=12.942; P <0.003).In the study area, cultural aspects and religious beliefs on age and disease treatment are important for the interpretation of data. Compared with younger people, older people generally prefer alternative medicine to patronizing modern health facilities as the first strand. When the first level fails and especially when their condition becomes critical then they may seek modern health interventions. Discussions further suggest that in this sense, whether a person will go to hospital for treatment is relative to the lay definition of the disease, the perceived social importance of the disease, convenience and also cost. The individual negotiates the how and whys of choosing where to go for health care as well as the implications for the societal approval or otherwise of that decision. Moreover the individual is also dependent on the resources available to assist him/her to access and go to hospital for treatment.

In this way going to hospital may not simply depend on the individual's behavior but also upon structural factors within the individual social and environmental context. In addition to social factors, respondents noted that going to the hospital for treatment is also influenced by institutional level factors. This includes such aspects as availability of drugs, distance and transport costs to clinics, quality of care, and relationship with caregiver, as well as treatment factors such as dosing complexities.

Another important question has to do with finding out whether one's income level has any influence on his/her ability to visit the hospital for treatment and care (Table 4.7)

Table 4.7:Cross tabulation of income status and frequency of visit to hospital

Variable	Monthly	Every 2 months	Every 3 months	P-value
Gh¢50.0-600.00	36.6%	35.2%	28.2%	0.000
Gh¢601.0-100.00	44.7%	17.5%	37.8%	
Gh¢1000.00+	33.9%	46.7%	19.4%	

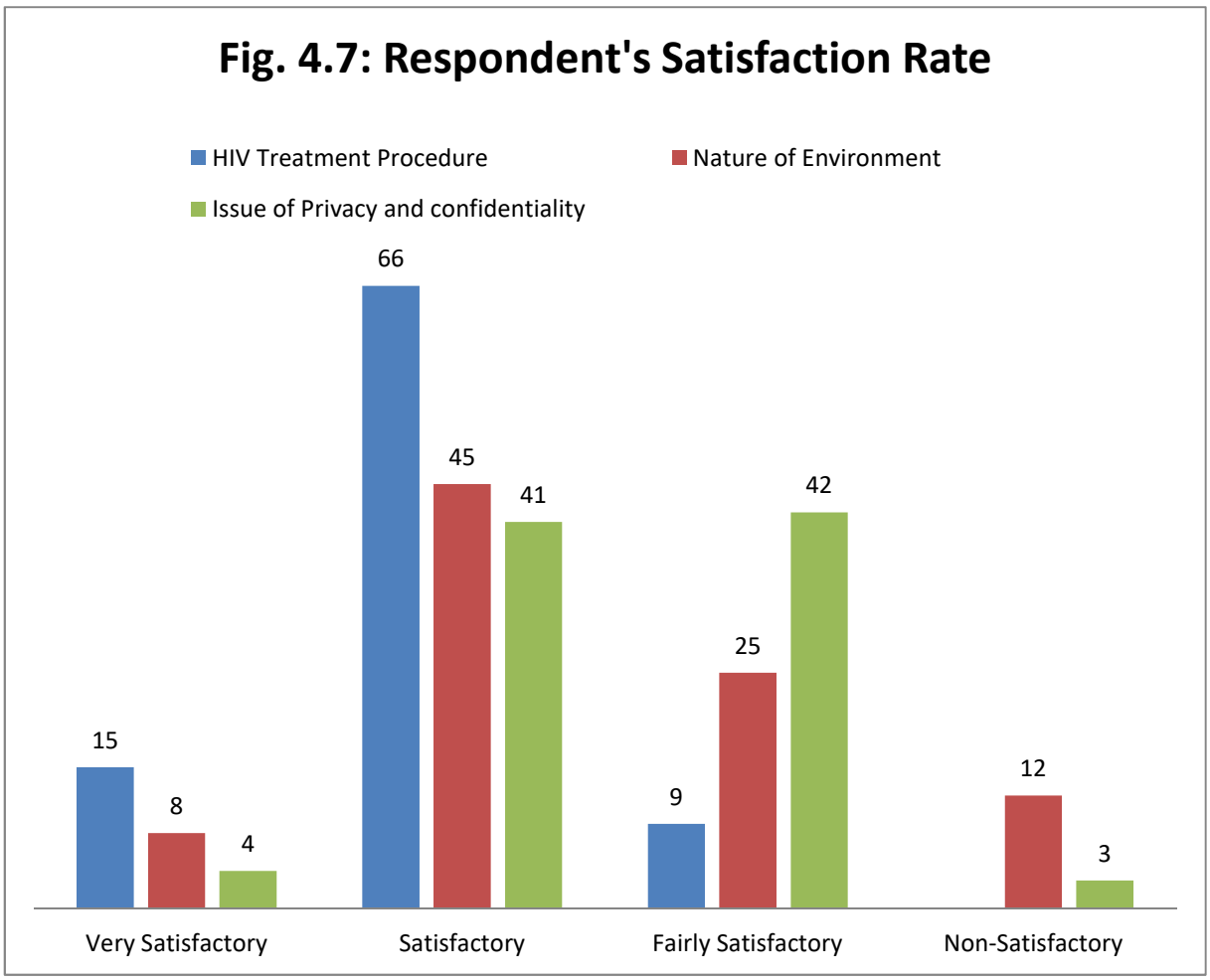
Source: Field survey, 2018

The analyses in Table 4.7 compared income status of respondents and frequency of visit to health care centers. The findings show that there is an association between income status and frequency of visit to hospital by respondents (χ^2=8.102; P < 0.001).

4.10 Respondents' satisfaction rating of Existing Treatment procedures

Responses were obtained from the respondents on their satisfaction rate of existing hospital HIV/AIDS treatment procedures. The main reason for obtaining responses on this was to ascertain whether HIV/AIDS treatment procedures at the hospitals were

working properly or not including the nature of the environment and issues of privacy and confidentiality.



Source: Field Survey, 2018

Figure 4.7: Respondents' satisfaction rating of Existing Treatment procedures

When respondents were asked about their satisfaction rate on HIV treatment procedure at the hospitals, it was revealed that (73.3%) of the respondents were generally satisfied with the treatment procedures, 16.7% of the respondents claimed it was very satisfactory and 10% of respondents said they were fairly satisfied. With the nature of the environment in which HIV treatment is given, it was revealed that 50% of the respondents were satisfied; 27.8% of respondents were fairly satisfied and

13.3% of the respondents were not satisfied. 8.9% of respondents were very satisfied with the nature of the environment in which HIV treatment is given in the hospitals. On the issues of privacy and confidentiality at the HIV clinic in the hospitals regarding HIV care and treatment, 46.7% of PLWA rated the facility as fairly satisfactory; 45.6% of them claimed they were satisfied; 4.4% said they were very satisfied, and only 3.3% of them were not satisfied.

These can be interpreted to mean that patients were generally satisfied with the treatment procedures they go through in designated public hospitals. This procedure, would involve who comes first, follow by picking your attendant card, visit the nurse and go to pharmacy for medication. This is what one of the patients said;

> *Those who are working here give respect to patients. Because of that I know when I come here they take good care of me. They make sure that if you come here first they will treat you first and the same way if you come late they will treat you only when it is your turn. I remember one day I went to market before coming to the clinic. Hmmmm, by the time I reached here a lot of my friends were here and I had to join the line till it was my time to be treated. I went home very late and since then I come to the clinic before going to the market when it is my clinic day*

With regards to the nature of environment in which HIV treatment was administered, majority of patients (86.7%) said they were satisfied, while (13.3%) of respondents rated the environment as poor. What it means is that, as much as hospital management are doing their best to have well organized site for HIV care and treatment center, they need to improve upon their HIV clinic environments. On the issues of privacy and confidentiality at the HIV clinic in the hospitals regarding HIV care and

treatment, there was a sharp split - 50% of the respondents were satisfied and 50% were not satisfied. Further observations carried out at the HIV care and treatment centers noted that, at hospital A, the waiting space for patients serve also as training center for the facility.

During the first one week of the field work at Facility A for example, the research team could not interact with patients at the waiting yard because it was being used for staff workshop. At hospital B on the other hand, the consulting room is the same place used for counseling and education. In-depth interview with some facility managers confirm the views of patients about poor privacy for patient counseling services.

> *The location of the clinic is not good for patients because it is public. These days too, we don't get any support programs for our patients. Last week you see that when you came here we were working in a different office. Our place has been used for workshop. Even it would be used for the same meeting this week, so we would be using this room for some time. That is what matron told me last week. Now you can understand what we have been going through here (**Hospital A)***

The situation is not peculiar to Hospital A. Another health provider in Hospital B noted:

> *Privacy for patients is a worrying situation in this clinic and 'am not happy at all about that. Look at where I consult, counsel and educate my patients. I dispense their drugs here including general consulting. So you can imagine the situation of privacy. At my former place, X hospital, the place is not like this. We have space for consulting, counseling and education and a dispensing court. I think we need help*

to make our HIV clinic here a better place for our patients. As at now if you are going out you will surfer to go. There is no space there and anyone who passes may have other thoughts about those they see waiting here. It is a serious issue to me ***(Clinician at Hospital B)***

Despite the general notion about poor facilities, respondents were of the opinion that compared with other centers; service personnel in the research health facilities were quite supportive of their patients. One respondent noted:

I used to go for treatment at hospital Z outside Tamale but I stopped because they were not treating me well. But since I started coming to this hospital, I always receive drugs and proper treatment which now makes me feel moderately fine.

Comments by respondents indicate general satisfaction with the expressed attitude of the specialized staff and think that creates a very conducive environment for health care.

4.11 Responses from Management staff concerning the use of HIV treatment guideline

The twelve (12) management staff selected for the study collectively agrees that, there are specific guidelines for HIV/AIDS treatment and care to patients. However, the impression gleaned from in-depth interviews with them suggests that the system has its own challenges which warrant that sometimes innovative arrangements are made for the good of the service.

The guidelines equip caregivers to work professionally. It is good in providing awareness and adherence to order. The guidelines are simplified enough and hence very applicable for uniformity, providing quality of care and treatment to our patients. As a human institution however, there are times when there emerges the need to be flexible and work through what best fits.

From responses from management staff, the procedures for the treatment of patients are well documented and thus provide the necessary guidelines for proper treatment of patients. Much as management staff seems abreast with the document, discussions with some of the staff of the center suggest they were not familiar with the guide. However as a number of personnel have some challenges in using this guide:

Some staffs virtually idolize the guide and are never flexible to its implications for application on the ground. There are those who follow the guidelines rigidly without being innovative in the midst of challenges. Another problem is that the guide is quite long and staffs do not have that patience at emergencies to comb through. My brother, if we really want to follow the guideline, then we cannot work: We need well equipped HIV/AIDS clinics with dieticians, clinicians and management staff. The guide is at the ideal level. On the ground, we are still fighting for basic needs to make sense of what we are doing.

It is gratifying however that generally all facilities said they have management staff and a set team of professionals specialized in HIV/AIDS treatment and care provision

including specialized staff in HIV treatment; ART Prescriber, HIV counselor, Data Manager, Doctors and laboratory technicians.

4.12 Responses from Clinicians concerning the use of HIV treatment guideline

All the clinicians indicated that, there are specific guidelines for giving HIV/AIDS treatment and care to patients at the hospitals where they (clinicians) work. Efforts were made to find out whether the clinicians face some major challenges in using the guidelines for service provision.

> *Acceptably, the guide is quite bulky. It is not brief enough and therefore there is the need to make an abridged version to facilitate quick reference* ***(Clinician at hospital B)***

The impression gleaned generally is that even though the guidelines are provided and readily available, health professionals do not easily use this as the routine reference. The general idea seems to be that it is bulky and therefore difficult to use as a reference material. Apparently, the clinicians depend largely on their specialized knowledge in HIV/AIDS care and treatment for the provision of services.

> *The team is well equipped and we work together. All members are trained and there is communication between team members is seen as crucial for success. I think we are very professional* ***(Clinician at Hospital A)***

Despite the high spirit and enthusiasm, clinicians say there is need for more support to improve the working environment.

> *Adequate equipment to work with is a major problem. For example transportation facilities have dwindled over the years. At the human resource management level, there are no regular meetings of team members and also lack of motivation create human challenges including low moral (**Clinician at Hospital B).***

The concern of motivation is a general issue that seems to be a major concern for quite a number of health providers on the programme. In-depth interviews with management staff reveal that, aside from the regular remunerations, staff on the programme generally thinks they should be treated as a special group and motivated through special allowances for the service they provide.

The situation is also linked with the fact that, service providers under the project think they are comparatively overworked. It was argued that the number of patients reporting for service over the years has been mounting as more and more PLWHIV get more and more informed and become knowledgeable about the relevance of the services. In order to avoid being overwhelmed by the increasing number of PLWA flocking into the center, management has instituted some measures to enhance effective delivery of services.

> *In order to control the pressure, except for those reporting the first time for services, we no longer have just walk-in services. We have scheduled clinic days for each patient. Different patients come different days for service. Sometimes, the schedule depends on the number of months for which drugs are available. When a patient visits the clinic today, he/she is given the next appointment date for revisit. We have also devised means by which, if we do not have shortage of*

> *drugs, we are able to give patients enough supplies to last about three or four months even. This arrangement is very supportive for them especially those living far off and those who cannot always afford to come* (**Clinician at Hospital C)**

The further question is whether Clinicians think such scheduling is the best way to manage PLWA. This is because some PLWA complained that much as that arrangement has its advantages; it defeats the ultimate objective of provision of services. The relationship between regular routine checkup and rigid adherence; regular clinic visits and medical advice cannot be overemphasized for achieving the ultimate goal of achieving the eventual reduction in viral load.

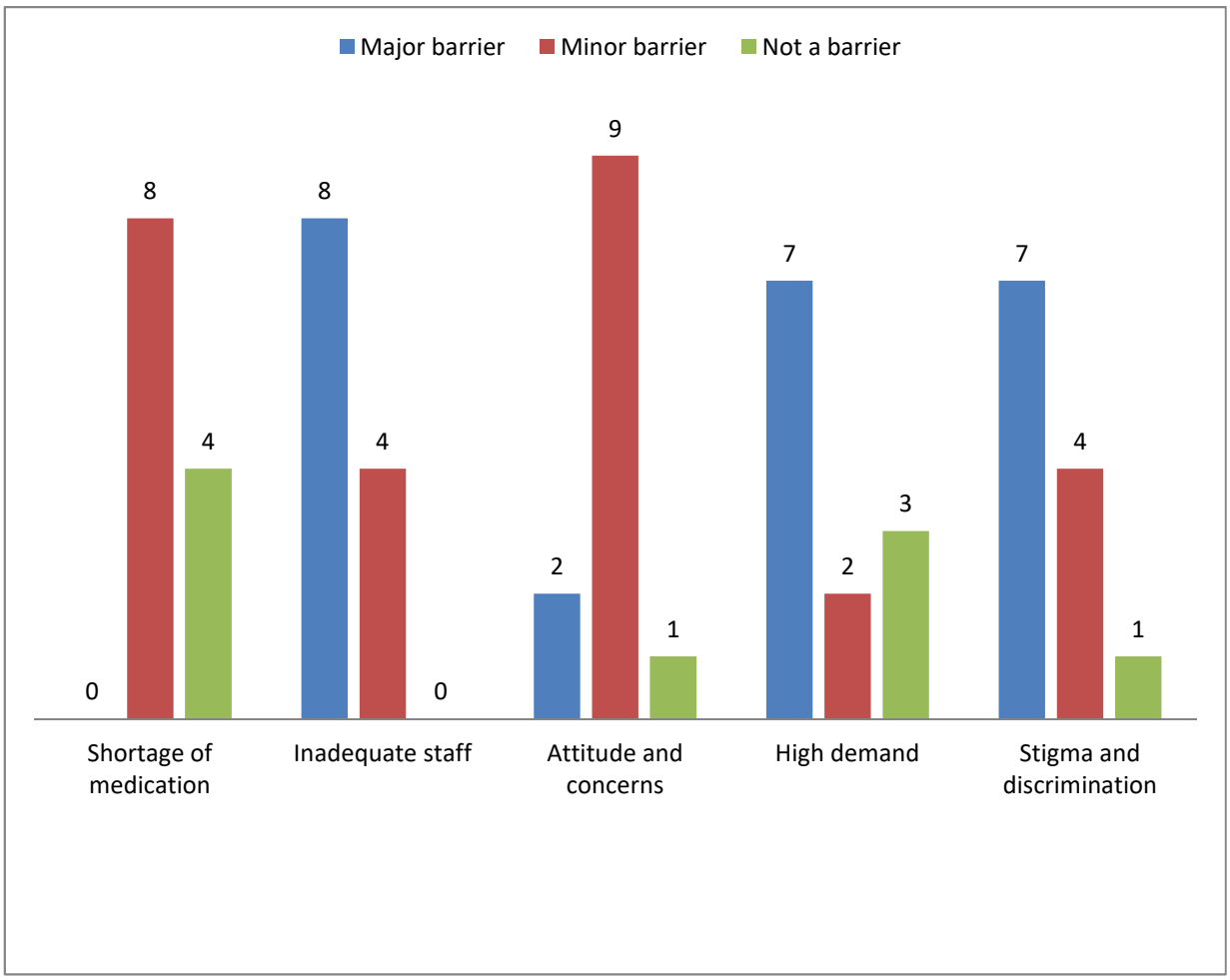
Some clinicians said even though they are aware that such arrangements have some inherent limitations, its comparative advantage could be good.

> *We are aware that the arrangement is not the best, we don't have other options. Because of the length of time involved, some patients forget the schedule. Others are illiterate and therefore find it difficult to remember dates to report for service. We therefore ensure that other meetings are arranged for the convenience of patients. We also have the system where drugs are supplied through other locations and at times in their homes when acceptable to them* **(Hospital B).**

Management however noted that they have put in place strategies for follow-ups and house visits where necessary to track defaulters.

4.13 Institutional Barriers Hindering HIV Care and Treatment

The study further required to investigate any perceived institutional barriers hindering HIV care and treatment according to Clinicians and Management staff (Figure 4.8).

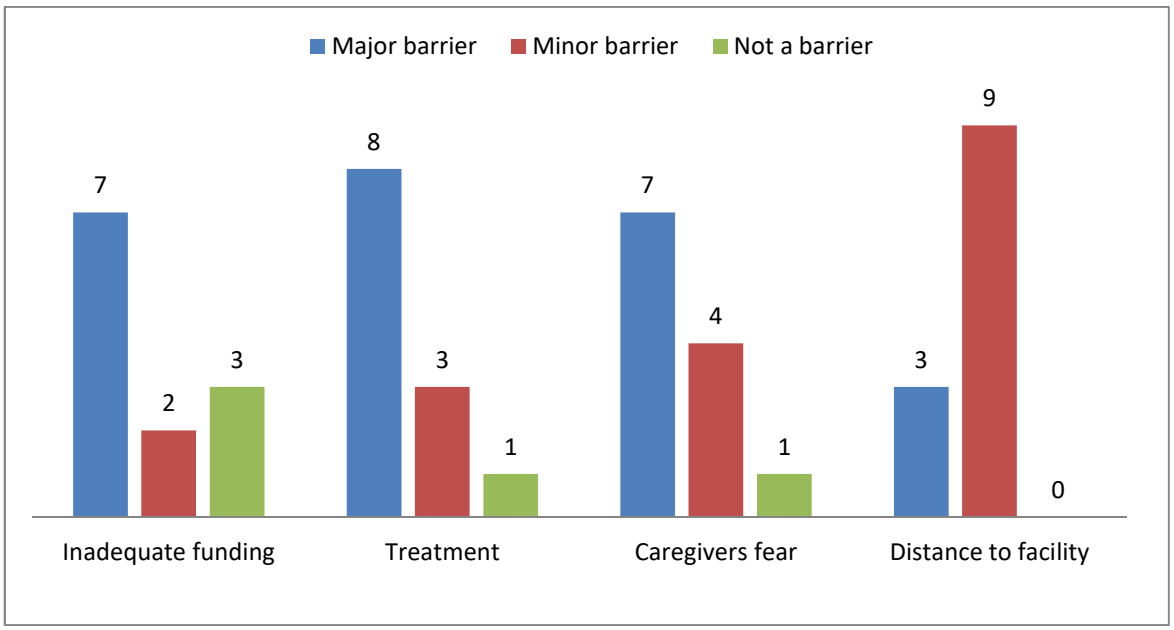


Source: Field Survey, 2018

Figure 4.8: Barriers Hindering the HIV treatment and care at the facility

From figure 4.8 above, it is interesting that for all management staff interviewed, not even one person mentioned shortage of medication for patients as a major barrier that hinders the treatment of HIV/AIDS. This implies that, it is not considered as a critical barrier to management. In the opinion of management, the major challenges include; inadequate specialized personnel in the facilities for the treatment of HIV/AIDS patients (66.7%). In addition, 75% of management staff do not think the attitudes and

concerns of healthcare providers constituted a major barrier However, 58.3% of management staff said the increasing demand for HIV/AIDS care and treatment is posing a major challenge that hinders their treatment. Management was concerned about stigma and discrimination related to treatment. Majority of management staff (58.3%) said stigma is a major barrier that hinders the treatment of patients. Another set of barriers that hinder institutional service provision to PLWHA is related to a set of challenges related directly to institutional capacity of the health institution itself (Figure 4.9).



Source: Field Survey, 2018

Figure 4.9: Institutional capacity of health Facilities to provide quality services to PLWA

From Figure 12 majority (58.3%) of respondents indicated that, inadequate funding for the treatment of HIV/AIDS is the major challenge in the treatment of HIV/AIDS patients. This may be related also to the fact that majority of management staff interviewed (66.6%)) think the treatment of HIV/AIDS related opportunistic diseases is a major barrier to the treatment of HIV/AIDS. It is also interesting that the far

majority of management staff interviewed (75%) did not see distance to health facilities as a major hindrance to patronage. This finding seems to agree with the views expressed by PLWA themselves who pointed out that they prefer services far from home. One principal concern that may impede service provision for PLWA is the fact that majority (58.3%) of caregivers fear contagion. This is a barrier because they think it is easy for them to acquire the disease from their patients.

In all, the findings point to inadequate funding for treatment as a major concern. It means that, if funds are available, management could have expanded infrastructure at the HIV clinics including having special programs to support patients. One respondent explains the situation as follows:

> *The location of the clinic is not conducive for patients because it is an open space. These days too, we don't get any support programs for our patients. Last week you see that when you came here we were working in a different office. Our place is been use for workshop. Even it would be used for the same meeting this week, so we would be using this room for some time. That is what matron told me last week. Now you can understand what we have been going through here (**Hospital A)***

From Hospital B, the complaint is about poor equipment and the fact that lower level staff were assigned as service providers for PLWA.

> *There is no medical Doctor or medical assistant giving care to patients here. The facility do not have CD-4 count machine for a very long time now which limits our operations. The clinic here is also not well structured to accommodate patients because of the space **(Hospital B)***

Infrastructural deficit and the unavailability of high level professionals and appropriate equipment are major challenges to the provision of quality services also in Hospital C.

> *As of now, our CD-4 samples have to be transported to the Public Health Laboratory at the TTH for screening because we don't have the count machine here in our facility. The effect is that we get the results late to help inform decisions. So, if management and stakeholders can help us overcome this challenge, it will help HIV treatment and care in this hospital* (**Hospital C**)

On specific areas of treatment that needed some advocacy, clinicians think the following should attract advocacy;

> *For me, helping patients' adherence to treatment regime is one area that needs advocacy. Free drugs for the treatment of opportunistic infections are also very important for advocacy. We should advocate for stakeholders to continue with food distribution to patients. Registration and renewal of National Health Insurance for our patients also needs advocacy. Testing, counseling, and also supporting them to establish some businesses for their livelihood. Another important area in my opinion that I think needed advocacy is the supply of ART drugs regularly without shortage anymore. I am talking about adequate and timely supply of these commodities. Again, patients should be integrated into general OPD services and not in specific days and a specific consulting room. Let's work on programs that will improve the health of the patients, while we work to ending new HIV infections. Our*

pharmacies and regional medical stores should be provided with the adequate and appropriate drugs for our patients ***(Hospital B)***

The suggestions cut across various aspects of quality service including issues related to advocacy, timely supply of drugs, equipment, regular supplies and the need for appropriate infrastructure and space for PLWA in health facilities. On advocacy, one clinician suggests the following;

*For advocacy, I think disclosure of HIV status to spouse must be encouraged in our planning. Because many of our patients do not want to disclose their status to their spouses for fear of divorce especially in the case of the women, we cannot completely control the spread of the health problem. This development is very worrying and making our effort in the field difficult. Because, it is rather encouraging reinfection since traditionally, within marriage, it is difficult to enforce condom use if spousal disclosure is ignored (****Clinician at hospital C****)*

In analyzing the views of both clinicians and management staff of the hospitals, it can be concluded that the major concerns include; stigmatization and discrimination, support groups, support programs, CD-4 count machines, lack of space for consulting, counseling, testing and dispensing drugs; means of transport, infrastructure, qualified staff, on the job training, equipment, and the challenge of disclosure of HIV status to spouses.

4.13 Inferential Statistics

This part of the study tries to make inference with regards to occupational status of respondents and how accessible it was for them to get medications and also whether the marital status of a PLWHA also affects their access to treatment.

Table 4.8: ANOVA Test of various factors and HIV medication

		Sum of Squares	df	Mean Square	F	Sig.
Occupation	Between Groups	.280	1	.280	.126	.723
	Within Groups	194.709	88	2.213		
	Total	194.989	89			
Marital status	Between Groups	.191	1	.191	.076	.784
	Within Groups	221.598	88	2.518		
	Total	221.789	89			
Level of education	Between Groups	1.120	1	1.120	.550	.460
	Within Groups	179.280	88	2.037		
	Total	180.400	89			

Source: Field survey, 2018

A one – way analysis of variance between subjects was conducted to compare the effects the occupational status of patients to their access to HIV medication at the various hospitals. This test was carried out on the hypothesis that: H_O: The occupation of a patient has no effect on their access to HIV medication. The test proved that there is no significant effect of the occupational status of the patient on their access to medication at the $p > 0.05$ level for six levels [$F(1, 88) = 0.126$, $p = 0.723$]

Another one – way analysis of variance between subjects was conducted to compare the effects of marital status of patients to their access to HIV medication at the various hospitals. This test was carried out on the hypothesis that: H_O: The marital status of a patient has no effect on their access to HIV medication. The test suggests that there is no significant effect of the marital status of the patient on their access to medication at the $p > 0.05$ level for five conditions [$F(1, 88) = 0.076$, $p = 0.784$].

The tests prove that neither of occupation nor marital status of patients has any influence on patients' access to HIV medication.

More tests were carried out to check whether educational background also has any significant effects on patients' access to health care providers at the hospitals or not. One-way ANOVA was carried out for this test on the premise that educational background has no significant effect on patients' access to health care providers at the hospitals. From the table above, it is clear that there is no significant effect at an alpha level of 0.05 for $p > 0.05$, [$F(1, 88) = 0.550$, $p = 0.430$].

CHAPTER FIVE

DISCUSSIONS

5.0 Introduction

This chapter discusses the results of the data gathered and analyzed. The results are discussed according to the objectives.

5.1 Socio-demographic characteristics of respondents

The findings show that slightly more than a third of the sample (31.1%) was aged 25-44 years. Even though it must be noted that this is only PLWA reporting at the study clinics, the finding is quite similar to the national records. The highest age group prevalence (HIV) was recorded within the 40-44 year group and the lowest (0.9%) was within the 15-19 year age group. The findings of this study therefore agree with the National figures and could be interpreted therefore that not only is the age group - 30-44 comparatively more affected by the HIV situation but also they are more likely to participate in the care support programme in Tamale public hospitals under study.

Closely related to this is the finding that there are more females (82.2%) than male (17.8%) PLWA in the records of the study clinics. This also reflects the National figures and the literature worldwide. According to the HSS report (2017) for example, PLWA are made up of 39% males and 61% females. UNAIDS (2017) observes that since the start of the global HIV epidemic, females have been disproportionately affected by HIV in many regions. The reports show that females constitute more than half of all people living with HIV and that AIDS-related illnesses remain the leading cause of death for females of reproductive age (15-44). UNAIDS (2017) further explains that HIV disproportionately affects females because of their unequal cultural, social and economic status in society.

5.2 Patients Access to HIV/AIDS Treatment and Care at the hospitals

Even though interviews with patients suggest that majority (86.7%) are able to get medication during clinical visits to the hospitals, a review of the records suggest generally that all the facilities suffer poor or regular supplies of essential drugs. Stock-outs have been quite persistent in the records.

Another contradiction between the perception of lay patients and health authorities emerged with whether PLWA have been given professionals trained in the specialized area of HIV. Even though the overwhelming majority of respondents (90%) believed that their caregivers are professionals specialized in giving HIV care and treatment, interviews with the health care management suggest that apart from regular Nurses (most of whom were only given some orientation for the task), there is no Medical Doctor or Medical Assistant trained to provide direct care and treatment to patients at the HIV clinic. The situation suggests a miss communication or lack of information on the quality of services offered by providers as well as weak information systems and unclear communication channels between service providers and beneficiaries. This finding agrees with the literature generally (Sutcliffe et *al.*, 2004; Roy *et al.*, 2005) that poor communication with patients exists in many health facilities and is one of the leading causes of preventable deaths in hospitals.

Another important finding of this study is that a half of respondents (50%) think privacy and confidentiality regarding HIV care and treatment is a major problem. Indeed literature points to the fact that confidentiality and security measures are valuable in HIV/AIDS programmes because they reflect autonomy and control over personal information and free patients from the burdens of stigma, inequality, and discrimination (Beck *et al.*, 2016). The literature suggests that this is also in line with

Human Rights expectations. A number of works (Cameron, 2001; UN 1994; UNCHR 1997) underscore the importance of protecting the confidentiality of medical information, particularly for people living with HIV/AIDS

5.3 Institutional Arrangement for providing HIV care and treatment

The findings suggest that there are a number of constraints contributing to low coverage of the interventions against HIV/AIDS including recurring stock-outs of essential drugs, the lack of CD-4 count machines and general equipment in research centers. The finding agrees with the report of WHO (2006) that Health infrastructure is generally weak in many Sub-Saharan African countries. Inpatient and outpatient facilities, laboratory capacity and systems to procure, manage and distribute drugs, diagnostics and other essential commodities such as disposable gloves and sterile needles and syringes, are all problems for most facilities.

The findings further disclosed other factors that serve as barriers hindering HIV treatment and care in the three public hospitals in the Tamale Metropolis. The attitude of Health Professionals at the facilities including being perceived as judgmental and not that supportive is found to play a vital role in achieving optimal adherence to ART. The finding is that such poor relationship between service providers and patients influences patients' decision to patronize treatment. This finding agrees with the literature generally (Beach, Keruly, & Moore, 2006; Murphy *et al.,* 2000) that privacy, convenience and supportive non-judgmental care from health providers are crucial elements in the perception of quality service to PLWA. Indeed the literature generally confirms that trust, privacy and confidentiality of health professionals is associated with adherence to ART (Golin, Lui & Hays, 2002; Remien, Hirky, Johnson, Weinhardt, Whittier, 2006; Posse & Baltussen, 2009).

These findings also conform with the findings of Mohlabane, Tutshana, Peltzer and Mwisongo (2016). They argue that one major concern of PLWA remains the trust of health personnel generally and their willingness to play their professional roles without sounding judgmental. Thus factors like perceived attitudes of personnel and/or beliefs about who gives treatment and where treatment is given affects patronage and quality of care.

5.4 Concerns of Management Staff regarding HIV/AIDS treatment and Care

Findings of this study show that against stipulated standards, all the health facilities under study have made several modifications to fit with their resource-constrained settings so as to promote long-term sustainability. Service delivery design alternatives to the traditional model of physician-centered, clinic-based care have been tried in these health facilities. This is especially in the case that visits to the ART clinic were rationalized in favor of the sub-population deemed to have more clinical need and also using other PLWA to distribute medications.

The literature endorses this dimension as a necessary strategy towards sustainability of the programme generally. A number of studies (Larson *et al.*, 2011; Duncombe et al., 2015; Bemelmans et al., 2014; Hirschhorn *et al.*, 2013) acknowledge that sustaining and expanding ART coverage in resource-limited settings requires modifications and adaptations of ART delivery models to meet the continually rising demand. Thus devising service delivery models that are more suited to resource-limited contexts is an important strategy for fostering the sustainability of ART scale-up programs in South Saharan Africa.

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5.6 Institutional Barriers Hindering HIV/AIDS treatment and care

It was envisaged that there perhaps would be some barriers hindering HIV/AIDS care and treatment upon all access to quality HIV/AIDS treatment and care with satisfied institutional arrangements and looking at the data obtained and analyzed corresponded to that. According to findings, the management staff of the health facilities, there are many barriers they come across in their course of discharging duties. This includes inadequate staff specialized in HIV/AIDS treatment, high demand for HIV care and treatment, stigma and discrimination related to treatment, inadequate funding for HIV

care and treatment, treatment of HIV-related opportunistic disease, and caregivers fear of contagion.

It reaffirms the findings of Kennedy *et al* (2013) that people infected with HIV (PIWH), are challenged by the health impact of opportunistic infections and the social consequences of having HIV (stigma and discrimination). Ghana AIDS Commission (2013) also had shown that lack of a resource mobilization strategy; weak mechanisms to coordinate funding; and Accountability.

However, the findings of the study revealed some factors that serve as minor barriers hindering HIV treatment and care in the three public hospitals in the Tamale Metropolis which included; shortage of medication and other HIV commodities like test kits and lubricated gels for HIV/AIDS patients, attitude of some healthcare providers towards patients, and distance from patients residence to the hospital. This affirmed to Mohlabane, Tutshana, Peltzer and Mwisongo (2016) that attitudes or beliefs about treatment, medical practitioners and disease. The issue of shortage of HIV drugs at the hospitals is matter that must be treated with all attention. The situation as observed is that sometimes, patients regular drugs help the well are replaced with others when there are shortages in such drugs. According PLHIV, this situation rather brings about difficult moments in their lives. Clinicians said sometimes, the situation create problems between them and their pharmacy team. They think that it their pharmacy staffs who delays the order for them. A follow up at the pharmacy revealed that, the situation is not from the hospitals pharmacies but a general one even during our checks at the regional medical stores.

CHAPTER SIX

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

6.0 Introduction

This chapter provides a summary of the study, conclusion and recommendations. It is guided by the research objectives.

6.1Summary of Findings

This study was conducted to assess factors influencing comprehensive healthcare and treatment for HIV patients in the three Public Hospitals in the Tamale Metropolis. The objectives of the study were:

1. to identify patients access to HIV care and treatment
2. to establish the institutional arrangements for providing HIV care and treatment
3. to evaluate institutional barriers hindering HIV care and treatment in the three major hospitals.

The study took a descriptive cross-sectional approach that targeted PLWA registered in these Hospitals. Convenience sampling technique was used in recruiting HIV patients, while Purposive sampling technique was used to select the Management Staff and HIV/AIDS Clinicians from the three facilities for the study

6.1.1 Objective 1: To identify patients' access to HIV/AIDS care and treatment offered in the three public hospitals in Tamale:

The results revealed that the main focus of services provided by the target Hospitals includes: counselling and testing for HIV, management of opportunistic infections and patient support services. Even though majority of patients (86.7%) said they are able to get their required medications during clinical visits to the hospitals, further

findings show there is the recurrent challenge of stock-outs in the case of some essential drugs. Majority of respondents (55%) also said they are not given the regular viral load testing and therefore are unable to monitor their progress systematically on viral suppression.

The study revealed that more than half (55%) of respondents noted that they do not get any thorough medical examinations from clinicians regularly. However, on non-clinical issues, including HIV counseling, HIV education, diet, and proper use of condoms, opportunistic infections, family support, empowerment, socialization, stigmatization, and discrimination – respondents said health education covers these issues.

Majority of respondents (76.7%) however do not belong to any HIV/AIDS support group organized by the hospitals to help them improve quality of life. On HIV special programs at the hospitals, (91.1%) of respondents said there is nothing like an income generating project to help PLWA to improve livelihoods

6.1.2 Objective 2: To establish institutional arrangements for providing HIV care and treatment for patients at the hospitals

With institutional arrangement, the survey indicated that beneficiaries prefer the bimonthly arrangement for revisits. Other issues raised bordered on HIV/AIDS treatment procedure, nature of environment and the private and confidential nature of treatment. To a large extent there was a high level of satisfaction in all these dimensions but some patients maintained that the environment within which they received treatment should be improved.

Management on the other hand expressed satisfaction in the professional performance of their staff but hoped their staff could adhere to the procedure spelt out in the

HIV/AIDS treatment guidelines. They were confident their clinical teams are professionally competent and up to the task.

The findings also suggested that generally personnel at these research centers complained about lack of motivation, inadequacy of equipment as well as irregular coordinating meetings among the working staff. Their complaints bordered on issues of irregular schedules for drug distribution from the Regional Medical Stores to their pharmacies. They also added their voice to those of the patients wishing that the package of drugs could be made to cover longer periods for obvious reasons of saving time, money and energy.

6.1.3 Objective 3: To evaluate institutional barriers hindering HIV care and treatment for patients at the three hospitals:

According to the findings, management of the hospitals experience barriers hindering the provision of comprehensive healthcare to PLHIV. This includes inadequate staff specialized in HIV/AIDS treatment, high demand for HIV care and treatment, stigma and discrimination related to treatment, inadequate funding for HIV care and treatment, treatment of HIV-related opportunistic disease, and caregivers fear of contagion. A major challenge is the lack of CD-4 count machines in some hospitals that makes testing of CD-4 samples difficult.

6.2 Conclusion

According to literature, the World Health Organisation, World Bank, United Nations Population Fund have strongly advocated for access to comprehensive healthcare for HIV patients in the Tamale Metropolis as a means to reduce the burden of HIV. Comprehensive healthcare for HIV patients is an approach that cares for the patient and all his or her needs, towards improving total health and not just the medical and physical ones.

This study was conducted to assess factors influencing access to comprehensive healthcare and treatment for HIV patients in the TTH, TCH and TWH in the Tamale Metropolis. The objectives of the study were: (1) to identify patients access to quality HIV care and treatment, (2) to establish the institutional arrangements for providing HIV care and treatment and (3) to evaluate institutional barriers hindering HIV care and treatment in the three major hospitals.

The study's findings concluded on Patients that: Majority (51.2%) of HIV patients in the Tamale Metropolis fall within the age bracket of 30-44 years. The far majority of the sample (82.2%) were female. On marital status more than half of representing (52.2%) were married. With educational background, half of the respondents (50%) have never been through formal education. On occupation, majority of the respondents (74.5%) were either traders or self-employed. Overwhelming proportion (92%) did not see distance as a major problem. Even though interviews with patients suggest that majority (86.7%) are able to get medication during clinical visits to the hospitals, a review of the records suggest generally that all the facilities suffer poor or irregular supply of essential drugs. Majority of respondents (81%) received HIV counseling regularly and almost all of them receive HIV education any time they visit the hospitals (90%). But a large proportion (77%) of HIV patients does not belong to

any HIV/AIDS support group. Almost every respondent (91.1%) said the hospitals do not have any special programs for HIV patients.

With institutional arrangements, the findings concluded that, the hospitals have professionals managing the HIV clinics but most of them are not trained by NACP. All the hospitals said their HIV clinic staff are working with the care and treatment guideline provided by NACP. All the institutions said they have regular training plan for their HIV clinic staff.

On institutional barriers hindering healthcare, the findings concluded that, inadequate funding for treatment for HIV patients, Infrastructure at the ART clinics, the lack of CD-4 count machines, drugs stock-outs, stigma and discrimination, spousal disclosure of HIV conditions are still major barriers that hinders the treatment of patients. The issue of how to disclose the condition to partners for fear of divorce and humiliation remains a challenge. Even though both the men and women go on individual basis for treatment, they hide their HIV status from each other, and this may lead to reinfections.

In finally, assessing healthcare for HIV patients has become necessary for improving quality of care and life the patient. The study concludes that, generally services were quite limited for Patients in the research hospitals and that the HIV patients do not receive comprehensive care and treatment at these Centres.

6.3 Recommendations

HIV patients access to healthcare and treatment

1. The satisfaction of patients is one of the crucial components for success in healthcare service delivery. It is extremely crucial especially in ART units because of the vulnerable population involved. It is therefore recommended that efforts should be made at all levels by the Management of these hospitals to ensure that challenges identified including: Drug stocks outs and/expired supplies (ARVS, OI drugs, test kits); poor quantification and forecasting at central and facility level; Transportation chain – poorly coordinated system for timely delivery are addressed.
2. There is the need for the intensification of community preventive education with focus on materials to help reduce new infections and re-infections by the Caregivers, Management and Stakeholders.

Institutional arrangement for providing HIV patients care and treatment

3. Clinician staff at the HIV clinic should be strengthened professionally with efficient numbers, training, and motivation.
4. The HIV clinic team should have monthly scheduled meetings at which they would be able to review their operations
5. None disclosure of HIV condition to spouses is one of the issues identified. The Clinicians and Counsellors should strongly encourage the disclosure of the HIV-positive status to a confidant (couple or partner) so that both can be involved in the issues relating to treatment and offer support to each other and also to avoid reinfection.

6. CD-4 count machines are not readily available in the hospitals. Management should ensure that the necessary equipment is available for comprehensive care.
7. Management through Ghana Health Services and Ministry of Health and stakeholders should as a matter of urgency help expand the structures at the HIV clinics. This will help in issues of privacy, stigma, and discrimination and build on confidentiality.
8. Government should increase the 0.5% domestic funding for HIV programs (through the District Assembly Common Fund) to 2.5% and see to allocating funds for the general improvement in infrastructure at the HIV/AIDS treatment centers.
9. Shortage of HIV commodities (drugs, test kits and lubricated gels) should be work out to avoid future occurrences of shortages from the point of dispensing, pharmacy, Regional Medical Store and National Medical Stores. Management should ensure this
10. The hospitals do not have HIV support groups and HIV special programs in place to assist PLHIV. Managements should advocate for resources to establish these programs as part of helping activities to improve and empower the life of the PLHIV

6.4 Suggestions for further research

1. This study was conducted in three major public health institutions in the Tamale Metropolis of Ghana. The same can be done in other health institutions on a larger scale-in several Municipalities or on a national scale to enable generalization of the findings
2. Majority of PLWA do not disclose their HIV/AIDS status to their spouse, therefore this is an area for further research
3. This study was centered on comprehensive healthcare that exist for PLHIV. Another research can be centered on ways of minimizing HIV/AIDS new infection rate in Tamale Metropolis and Ghana as a whole.
4. There are many PLWA who have stopped patronizing the hospitals for treatment. They are rather going to prayer camps and Mallams for cure. A study on tracing defaulters may be useful.

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APPENDIXES

APPENDIX (I): QUESTIONNAIRE FOR PATIENTS

UNIVERSITY FOR DEVELOPMENT STUDIES, TAMALE
SCHOOL OF ALLIED HEALTH SCIENCES
DEPARTMENT OF PUBLIC HEALTH

QUESTIONNAIRE FOR PATIENTS

Dear Respondent,

The following questionnaire forms part of a study being undertaken on the topic "Assessing Comprehensive Healthcare for HIV/AIDS Patients in Three Major Public Health Institutions in Tamale Metropolis of Ghana". I would be grateful if you answer them according to the best of your ability.

This is purely an academic exercise and your anonymity is guaranteed. Indicate your answer(s) by a ticking (√) in the box provided and fill in the spaces where necessary.

Thank you for your time and cooperation.

Questionnaire ID:…… Date: ……/……/…… Facility…….

INSTRUCTION: *Please answer this questionnaire by ticking the right option or supplying the requested information on the space provide where applicable.*

SECTION A: SOCIO-DEMOGRAPHIC DATA

1. Age of the respondents?
   a. Below 15 years [ ]
   b. 15-19 years [ ]
   c. 20-24 years [ ]
   d. 25-29 years [ ]
   e. 30-34 years [ ]
   f. 35-39 [ ]
   g. 40-44 [ ]
   h. 45-49 [ ]
   i. 50-54 [ ]
   j. 55-59 [ ]
   k. 60+ years [ ]

2. Sex of the respondents
   a. Male [ ]
   b. Female [ ]

3. Marital status:
   1. Married [ ] 2. Cohabiting [ ] 3. Separate [ ] 4. Widowed [ ]
   5. Single [ ]

4. Level of education
   a. None [ ]
   b. Primary [ ]
   c. JHS [ ]
   d. Secondary/Technical [ ]
   e. Tertiary [ ]

5. Religious denomination
   a. Roman Catholic [ ]
   b. Orthodox: Presbyterian/Methodist/Anglican [ ]
   c. Pentecostal [ ]
   d. Charismatic [ ]
   e. Islam [ ]
   f. African Traditional Religion [ ]

6. Occupation
   a. Farming [ ]
   b. Trading [ ]
   c. Civil Servant [ ]
   d. Self-employed [ ]
   e. Housewife [ ]
   f. Other (specify) .....

7. Average monthly income now
   a. GH¢ 50-100 [ ]
   b. GH¢ 100-200 [ ]
   c. GH¢ 200-300 [ ]
   d. GH¢ 300-400 [ ]
   e. GH¢ 400-500 [ ]
   f. GH¢ 500-1000 [ ]
   g. GH¢ 1000-1500 [ ]
   h. GH¢ 1500-2000 [ ]
   i. >= GH¢ 2000 [ ]

8. Do you think your current Health situation has affected your income opportunity?

SECTION B: PATIENTS ACCESS TO HIV TREATMENT AND CARE

9. *Please tick (√) to indicate your level of agreement with the following statement by choosing from the options provided as which of the following accounts for patients' involvement in accessing HIV treatment and care. Note:* ***1=Strongly Agree, 2=Agree, 3= Uncertain, 4=Disagree, 5=Strongly Disagree****.*

Statement	1	2	3	4	5
1. I am able to get the required medication each time I visited this hospital	☐	☐	☐	☐	☐
2. Staff are able to carry out test on me regularly	☐	☐	☐	☐	☐
3. Staff carry out medical diagnosis on me regularly	☐	☐	☐	☐	☐
4. I received HIV/AIDS counselling from the staff of this hospital regularly	☐	☐	☐	☐	☐
5. I received HIV/AIDS education from the staff of this hospital regularly	☐	☐	☐	☐	☐
6. I belong to HIV/AIDS support group organised by this hospital	☐	☐	☐	☐	☐
7. The hospital has a specialised team of HIV professionals who take good care of me	☐	☐	☐	☐	☐
8. The hospital has special HIV/AIDS programs that help to improve the quality of my life.	☐	☐	☐	☐	☐

10. Are you able to attend clinic sessions as scheduled?----------

Explain----------

---

11. *On a scale of 1-5 where* ***1= Very poor, 2= Poor, 3= Average, 4= Good, 5= Excellent,*** *how will you rate the quality of the following HIV/AIDS services rendered by the hospital per your personal experience?*

Statement	1	2	3	4	5
1. Access to medication	☐	☐	☐	☐	☐
2. HIV Testing procedure	☐	☐	☐	☐	☐
3. Medical Diagnosing procedure	☐	☐	☐	☐	☐
4. HIV/AIDS counselling service	☐	☐	☐	☐	☐
5. HIV/AIDS education	☐	☐	☐	☐	☐
6. HIV/AIDS support group organised by this hospital	☐	☐	☐	☐	☐
7. Team of professionals specialised in HIV/AIDS	☐	☐	☐	☐	☐
8. Special programs to improve the quality of life of patients	☐	☐	☐	☐	☐

SECTION C: INSTITUTIONAL ARRANGEMENT FOR HIV CARE AND TREATMENT

1. How often do you visit the hospital for HIV medication?
   a. Weekly [ ]
   b. Monthly [ ]
   c. Every 2 months [ ]
   d. Every 3 months [ ]
   e. Others

   (specify)……
2. How will you rate the HIV treatment procedures you pass through in receiving treatment in this hospital?
   a. Very Satisfactory [ ]
   b. Satisfactory [ ]
   c. Fairly Satisfactory [ ]
   d. Non-satisfactory [ ]
3. Kindly give reason(s) for your answer above

   ……

   ……

   ……

   ……

4. How will you rate the nature of the environment where HIV treatment is given in this hospital?
    1. Very Satisfactory [ ]
    2. Satisfactory [ ]
    3. Fairly Satisfactory [ ]
    4. Non-satisfactory [ ]

5. How will you rate the issues of privacy and confidentiality with regards to HIV in this hospital?
    1. Very Satisfactory [ ]
    2. Satisfactory [ ]
    3. Fairly Satisfactory [ ]
    4. Non-satisfactory [ ]

6. How will you rate the attitude of staff toward you each time you visit the hospital?
    1. Positive [ ]
    2. Negative [ ]

7. Kindly give reason(s) for your answer above

    ……

    ……

    ……

8. Do you have any concerns regarding HIV treatment and care in this hospital that needs to be addressed?

    ……

    ……

    ……

9. Do you have any partners who help you?----------

THANK YOU

APPENDIX (II): QUESTIONNAIRE FOR CLINICIANS

UNIVERSITY FOR DEVELOPMENT STUDIES, TAMALE

SCHOOL OF ALLIED HEALTH SCIENCES

DEPARTMENT OF PUBLIC HEALTH

QUESTIONNAIRE FOR CLINICIANS

Dear Respondent,

The following questionnaire forms part of a study being undertaken on the topic "Assessing Comprehensive Healthcare for HIV/AIDS Patients in Three Major Public Health Institutions in Tamale Metropolis of Ghana". I would be grateful if you answer them according to the best of your ability.

This is purely an academic exercise and your anonymity is guaranteed. Indicate your answer(s) by a ticking (√) in the box provided and fill in the spaces where necessary.

Thank you for your time and cooperation.

Questionnaire ID:…… Date: ……/……/…… Facility…….

SECTION A: PERSONAL INFORMATION

1. Gender:

   1. Male [ ]

   2. Female [ ]

2. Age in years:

   a. 18-25 [ ]
   b. 26-33 [ ]
   c. 34-41 [ ]
   d. over 45 [ ]

3. Are you NACP trained? Yes [ ] No [ ]

4. How long have you been working as HIV clinician?

   1. Under 2 years [ ] 2. 2-5years [ ] 3. 6-10years [ ] 4. 11-20yrs [ ]

   e. Over 20 years [ ]

SECTION B: INSTITUTIONAL ARRANGEMENT FOR HIV CARE AND TREATMENT

5. Does the hospital have specific guidelines for giving HIV treatment and care to patients?
   a. Yes [ ]
   b. No [ ]

6. What do you think are the major challenges in using the guidelines for service provision?

   ……
   ……
   ……
   ……

7. Does the hospital have a team of professionals specialised in HIV/AIDS care and treatment?

   a. Yes [ ]
   b. No [ ]

8. In your opinion what are the strengths of the team?

   ……
   ……
   ……
   ……

9. In your opinion what are the weaknesses of the team?----------
   ----

---

10. How is visit by PLWA to hospital scheduled?----------

---

11. In your experience so far, do you think this is the most effective? (**Explain)**

……

……

……

……

12. Does the hospital have a separate HIV/AIDS treatment and care unit?

a. Yes [ ]

b. No [ ]

13. Who prescribes the HIV/AIDS treatment in this hospital?

a. Doctor [ ]

b. Nurse [ ]

c. HIV coordinator/counselor [ ]

d. HIV specialist [ ]

e. Others

(specify)……

14. Are there structures/strategies put in place by the hospital to detect HIV/AIDS patients who fall out of treatment?

1. Yes [ ] 2. No [ ]

15. If yes, briefly outline these strategies?

……

……

……

……

……

……

……

16. Kindly register your concerns regarding HIV treatment and care that should be addressed……

……

……

……

17. Which specific areas related to treatment do you think need some advocacy?

---

18. Does your facility have any partners who support care and treatment in this unit?

THANK YOU

APPENDIX (III): QUESTIONNAIRE FOR MANAGEMENT STAFF

UNIVERSITY FOR DEVELOPMENT STUDIES

SCHOOL OF ALLIED HEALTH SCIENCES

DEPARTMENT OF PUBLIC HEALTH

QUESTIONNAIRE FOR MANAGEMENT STAFF

Dear Respondent,

The following questionnaire forms part of a study being undertaken on the topic "Assessing Comprehensive Healthcare for HIV/AIDS Patients in Three Major Public Health Institutions in Tamale Metropolis of Ghana". I would be grateful if you answer them according to the best of your ability.

This is purely an academic exercise and your anonymity is guaranteed. Indicate your answer(s) by a ticking (√) in the box provided and fill in the spaces where necessary.

Thank you for your time and cooperation.

Questionnaire ID:…… Date: ……/……/……

SECTION A: INSTITUTIONAL ARRANGEMENT FOR HIV CARE AND TREATMENT

1. Does the hospital have specific guidelines for giving HIV treatment and care to patients?
   1. Yes [ ]
   2. No [ ]

2. In your opinion, what are the prospects and challenges in using these guidelines?

   ……

   ……

   ……

   ……

3. Does the hospital have a team of professionals specialised in HIV/AIDS treatment and caregiving?

   1. Yes [ ] 2. No [ ]

4. If yes, what is the composition of the team?

   ……

   ……

   ……

   ……

SECTION B: INSTITUTIONAL BARRIERS HINDERING HIV CARE AND TREATMENT

5. Are there barriers that hinder HIV treatment and care in this hospital?

   a. Yes [ ]

   b. No [ ]

6. Which of the following serves a barrier hindering HIV treatment and care in your facility? (*Please tick to indicate the nature of the barrier*)

Barrier	Major	Minor	Not a Barrier
1. Shortage of medication for HIV patients	☐	☐	☐
2. Inadequate Staff specialised in HIV/AIDS treatment	☐	☐	☐
3. Attitude and concerns of healthcare providers	☐	☐	☐
4. High demand for HIV care and treatment	☐	☐	☐
5. Stigma and discrimination related to treatment	☐	☐	☐
6. Inadequate funding for HIV care and treatment	☐	☐	☐
7. Treatment of HIV-related opportunistic disease	☐	☐	☐
8. Caregivers fear of infection	☐	☐	☐
9. Distance to the facility to HIV patients' residence	☐	☐	☐

7. What other barriers hinder HIV treatment and care in your hospital aside those stated in the table above? (*Kindly state the major points*)

……..……..……

……

……..……

……..……

……

8. Kindly register your concerns regarding HIV treatment and care in this hospital in which you would like to be addressed

……

……

……

……

……

9. Which areas do you think need advocacy for promoting the welfare of PLWA?

---

10. Does your facility have any partners who support care and treatment in this unit?

---

11. To what extent is your facility a referral center for HIV/AIDS patients?----

---

THANK YOU

APPENDIX (IV): CLEARANCE CERTIFICATE FROM TTH

Department of Research &Development
Tamale Teaching Hospital

TTH/R&D/SR/16
06/02/2018

TO WHOM IT MAY CONCERN

CERTIFICATE OF AUTHORIZATION TO CONDUCT RESEARCH IN TAMALE TEACHING HOSPITAL

I hereby introduce to you **Mr. Agbenya Ebenezer Adzormahe,** a final year MPhil Community Health and Development from the school of Allied Health Sciences, Department of Public Health at the University for Development Studies. He has been duly authorized to conduct a study on **"Assessing comprehensive healthcare for HIV/AIDS patients in the three major health institutions in Tamale".**

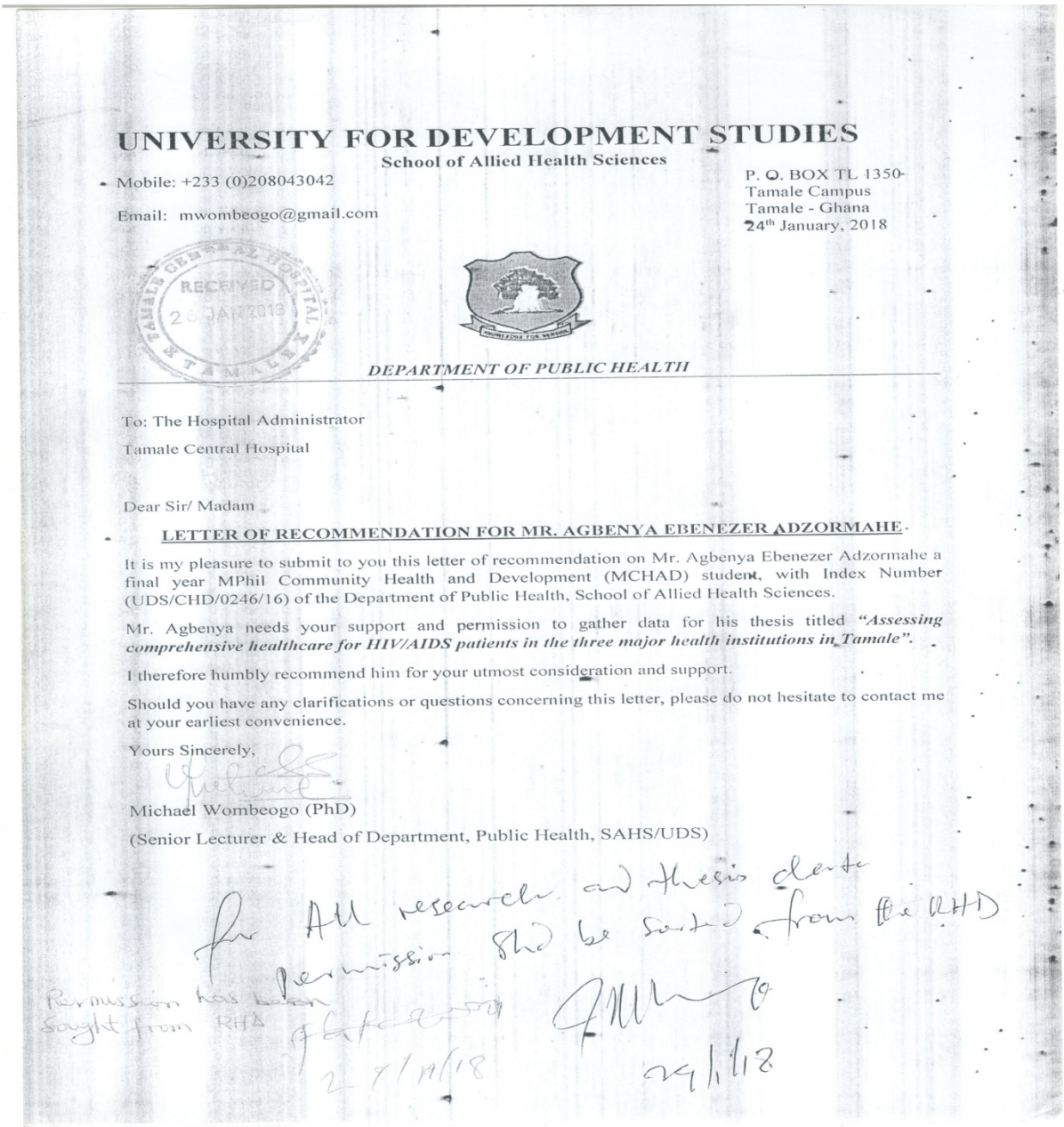
Please accord him the necessary assistance to enable him complete his study. If in doubt, kindly contact the Research Unit on the second floor of the administration block or on Telephone 0209281020. In addition, kindly report any misconduct of the Researcher to the Research Unit for necessary action.

Please note that this approval is given for a period of six months, beginning from 6th of February, 2018 to 6th of July, 2018.

Thank You.

ALHASSAN MOHAMMED SHAMUDEEN
(HEAD, RESEARCH & DEVELOPMENT)

APPENDIX (V): PERMISSION FROM TCH



UNIVERSITY FOR DEVELOPMENT STUDIES

School of Allied Health Sciences

Mobile: +233 (0)208043042

Email: mwombeogo@gmail.com

P. O. BOX TL 1350
Tamale Campus
Tamale - Ghana

24th January, 2018

TAMALE CENTRAL HOSPITAL RECEIVED 26 JAN 2018 T A M A L E

DEPARTMENT OF PUBLIC HEALTH

To: The Hospital Administrator

Tamale Central Hospital

Dear Sir/ Madam

LETTER OF RECOMMENDATION FOR MR. AGBENYA EBENEZER ADZORMAHE

It is my pleasure to submit to you this letter of recommendation on Mr. Agbenya Ebenezer Adzormahe a final year MPhil Community Health and Development (MCHAD) student, with Index Number (UDS/CHD/0246/16) of the Department of Public Health, School of Allied Health Sciences.

Mr. Agbenya needs your support and permission to gather data for his thesis titled ***"Assessing comprehensive healthcare for HIV/AIDS patients in the three major health institutions in Tamale".***

I therefore humbly recommend him for your utmost consideration and support.

Should you have any clarifications or questions concerning this letter, please do not hesitate to contact me at your earliest convenience.

Yours Sincerely,

Michael Wombeogo (PhD)

(Senior Lecturer & Head of Department, Public Health, SAHS/UDS)

for All research and thesis clerks permission should be sought from the (RHD)

Permission has been sought from RHA

24/1/18

APPENDIX (VI): AUTHORITY LETTER FROM UDS

UNIVERSITY FOR DEVELOPMENT STUDIES
School of Allied Health Sciences
Mobile: +233 (0)208043042
Email: mwombeogo@gmail.com
P. O. BOX TL 1350
Tamale Campus
Tamale - Ghana
24th January, 2018

DEPARTMENT OF PUBLIC HEALTH

To: The Hospital Administrator

Tamale West Hospital

Dear Sir/ Madam

LETTER OF RECOMMENDATION FOR MR. AGBENYA EBENEZER ADZORMAHE

It is my pleasure to submit to you this letter of recommendation on Mr. Agbenya Ebenezer Adzormahe a final year MPhil Community Health and Development (MCHAD) student, with Index Number (UDS/CHD/0246/16) of the Department of Public Health, School of Allied Health Sciences.

Mr. Agbenya needs your support and permission to gather data for his thesis titled ***"Assessing comprehensive healthcare for HIV/AIDS patients in the three major health institutions in Tamale".***

I therefore humbly recommend him for your utmost consideration and support.

Should you have any clarifications or questions concerning this letter, please do not hesitate to contact me at your earliest convenience.

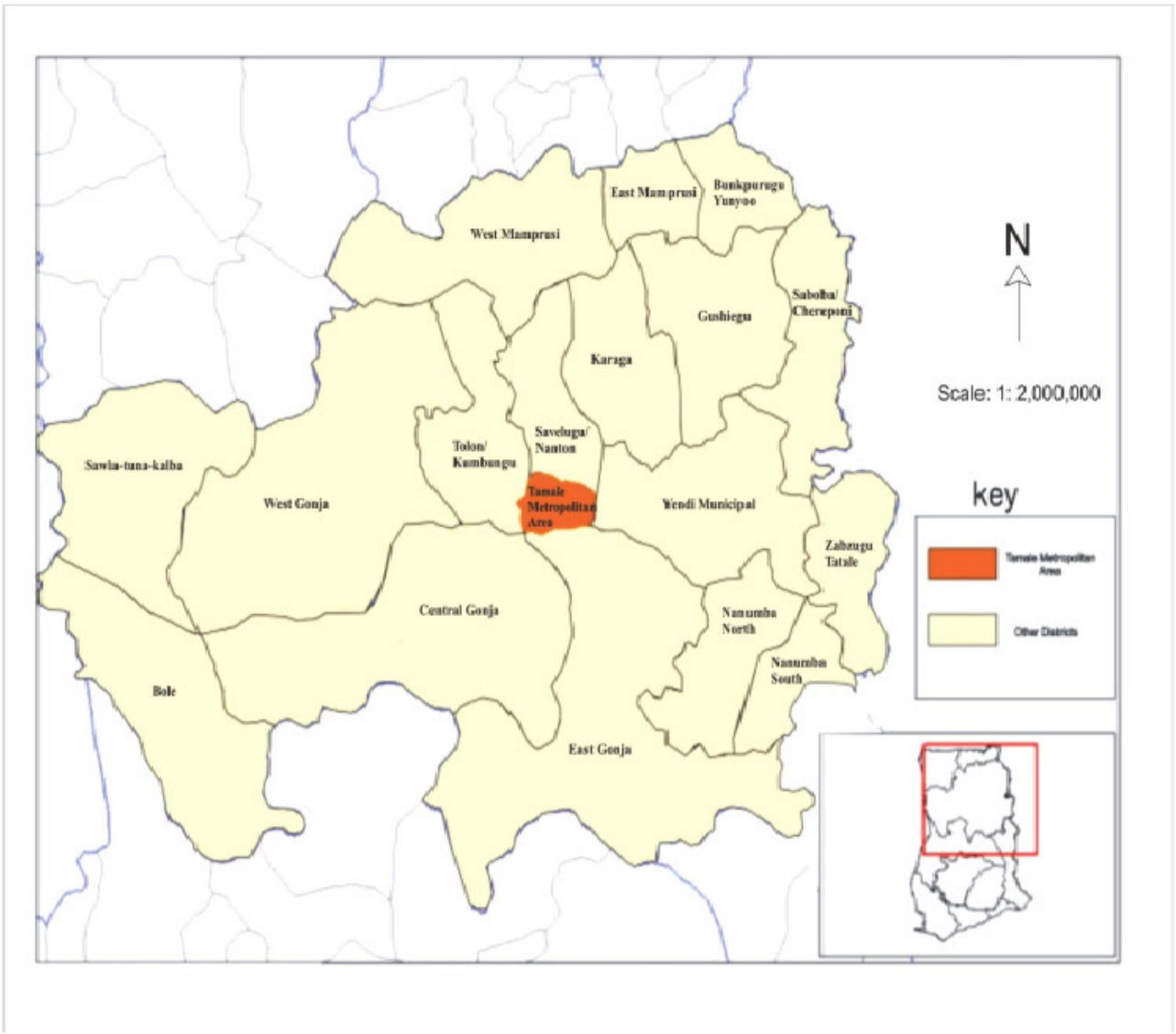
Yours Sincerely,

Michael Wombeogo (PhD)

(Senior Lecturer & Head of Department, Public Health, SAHS/UDS)

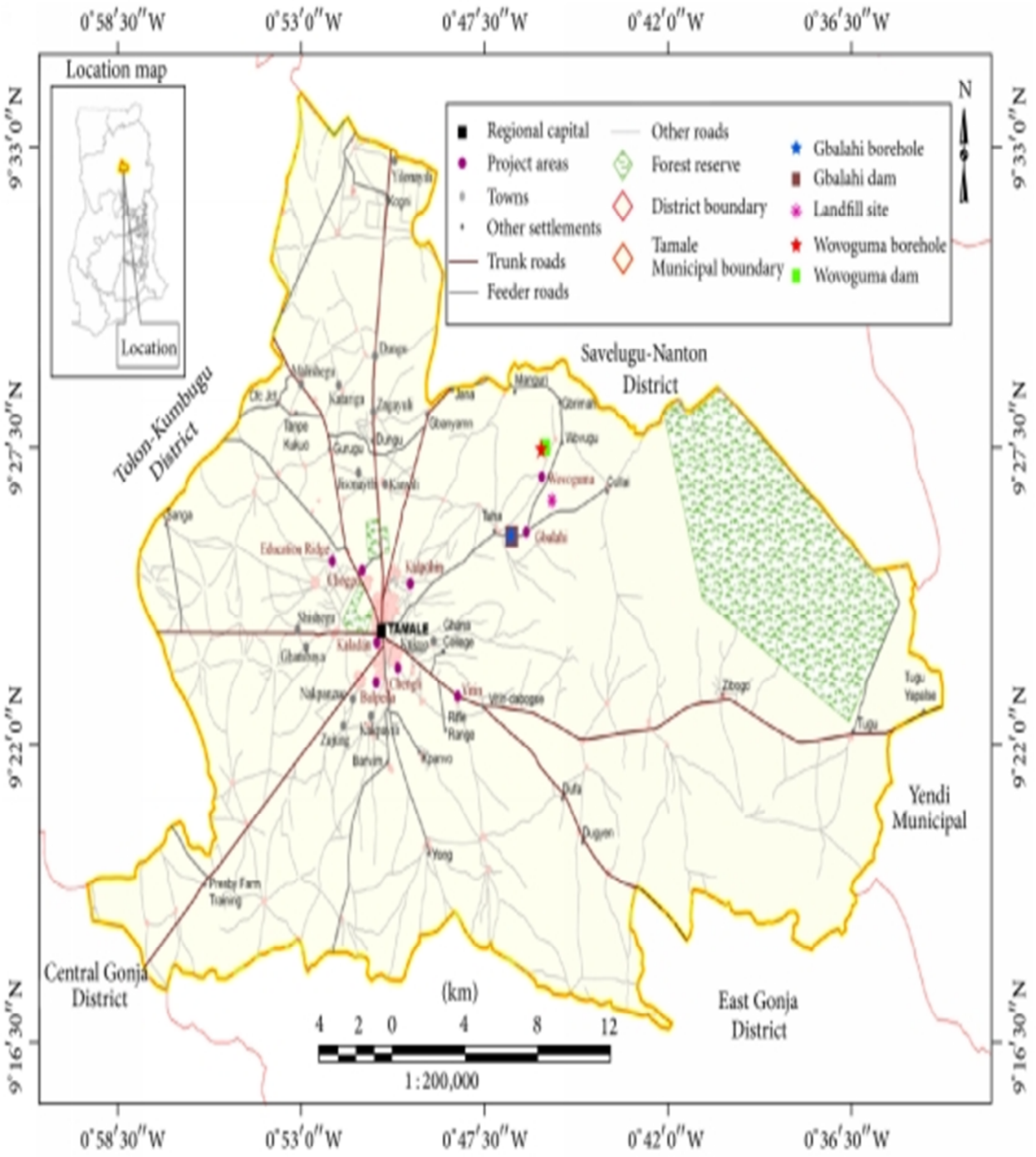
APPENDIX (VII): MAP OF GHANA SHOWING REGIONS

APPENDIX (VIII): MAP AND DISTRICTS OF NORTHERN REGION



Source: Department of Geography & Resource Development, University of Ghana

APPENDIX (IX): MAP OF TAMALE METROPOLITAN ASSEMBLY



Source: GSS

APPENDIX (X): MAP OF TAMALE