

**AN ASSESSMENT OF HIV&AIDS PREVENTION AND MANAGEMENT  
PROGRAMMES IN THE NORTHERN REGION OF GHANA. A CASE STUDY OF  
THE TAMALE METROPOLIS AND THE YENDI MUNICIPALITY.**

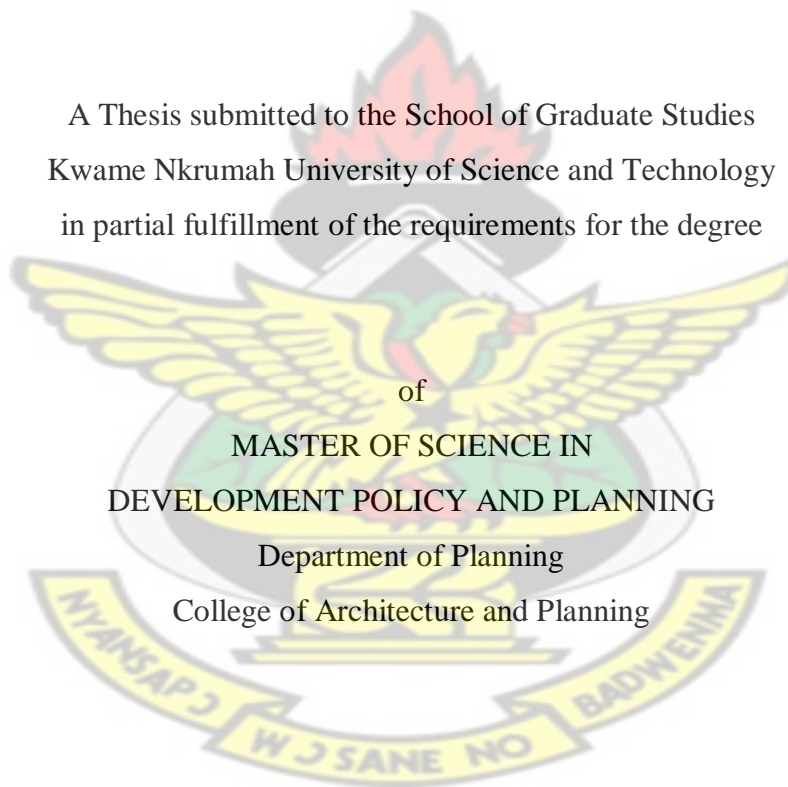
BY

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## ABSTRACT

Acquired immune-deficiency Syndrome (AIDS) remains a serious problem especially in Africa and Ghana since no cure to the disease has been discovered yet. The best known alternative in the response to the epidemic is prevention as well as management. The study sought to assess the HIV&AIDS prevention and management programmes in the Tamale Metropolis and the Yendi Municipality both in the Northern region of Ghana.

The specific objectives were to; assess the awareness, knowledge and behaviour related to HIV&AIDS transmission, prevention and treatment; examine the accessibility of Voluntary Counselling and Testing (VCT) for HIV, Antiretroviral Therapy (ART) and Prevention of Mother To Child Transmission (PMTCT) services and facilities; assess the extent of HIV&AIDS related stigma; examine the main challenges confronting HIV&AIDS prevention and management programmes, and make recommendations to inform policy.

The research design was a case study. The total sample size was 209 and a combination of sampling methods including purposive, cluster, and the simple random sampling were employed. Data was collected from both primary and secondary sources. The primary data was obtained through a field survey while the secondary data was sourced from relevant institutions. Results of the study reveal that 99.0 percent of respondents are aware about the disease. Knowledge on sexual transmission of the disease was 98.0 percent. However, knowledge on other modes of infection such as mother to child transmission was just 14.0 percent. Seventy-seven percent of respondents were aware of counselling and testing for HIV but only 20 percent had actually tested. The study also revealed that the use of condoms even among people with non regular sexual partners was as low as 56.0 percent. Findings concerning stigma was mixed. While 78.0 percent of field survey respondents indicated they would eat from the same plate with an HIV infected person, evidence from the Yendi Hospital was that 60.0 percent of HIV diagnosed cases would not have their HIV status disclosed to their spouses or partners. Other findings include inadequate funds, personnel, and logistics for programmes.

The formulation of comprehensive Information, Education and Communication (IE&C) has been recommended to address specific issues of knowledge and behaviour such as mother to child transmission of HIV and condom use. On the reduction of stigma against People Living with HIV&AIDS (PLWHA), high level political and religious advocacy, extensive education, and personal commitment were recommended.

## ACKNOWLEDGEMENTS

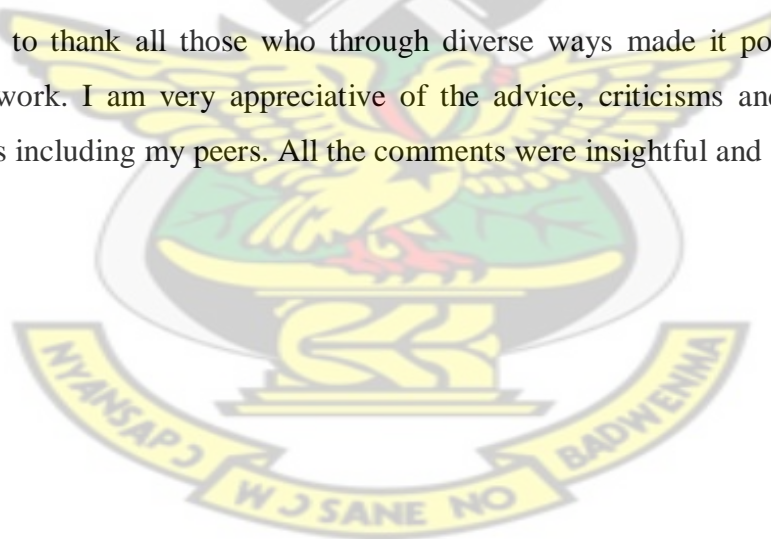
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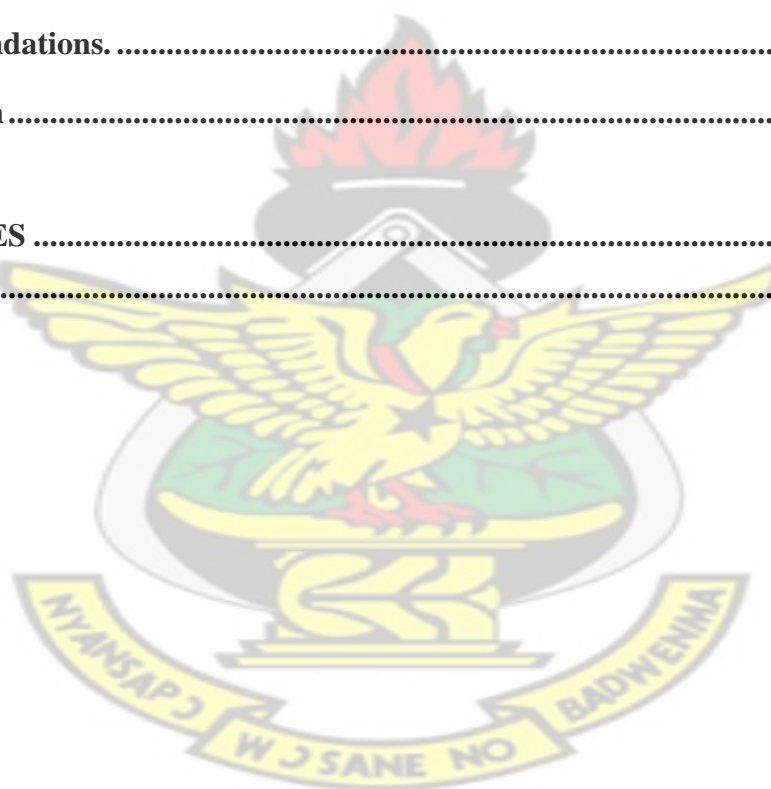
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## LIST OF ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ART	Antiretroviral therapy
AVERT	Averting HIV&AIDS
BCC	Behaviour Change Communication
BIRDS	Bangu Manga Integrated Development Society
CSW	Commercial Sex Workers
DANIDA	Danish International Development Agency
DFID	Danish Fund for International Development
ECA	Economic Commission for Africa
EPDRA	Evangelical Presbyterian Development and Relief Agency
EWID	Enterprising Women In Development
FAO	Food and Agricultural Organisation
FBO	Faith Based Organisation
FHI	Family Health International
GAC	Ghana AIDS Commission
GARFUND	Ghana AIDS Response Fund
GDHS	Ghana Demographic and Health Survey
GGDEV	Girls Growth and Development
GHS	Ghana Health Service
HBM	Health Believe Model
ICRW	International Centre for Research on Women
MDA	Ministries, Departments, and Agencies
MSHAP	Multisectoral HIV&AIDS Programme
NACP	National AIDS Control Programme
NGO	Nongovernmental Organisation
PLWHA	People Living With HIV&AIDS
PMTCT	Prevention of Mother To Child Transmission
RCC	Regional Coordinating Council
TB	Tuberculosis
UDS	University for Development Studies

UNAIDS	joint United Nations Programme on HIV&AIDS
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children Fund
USAID	United States Agency for International Development
VCT	Voluntary Counselling and Testing
ZRCS	Zimbabwean Red Cross Society

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## CHAPTER ONE

### GENERAL INTRODUCTION

#### 1.1 Background

Medical history reveals that HIV/AIDS was discovered in the United States of America in 1981. According to AVERT (2009), the discovery of the disease was made by doctors engaged in the investigation into eight cases of gay persons who had Kaposi's sarcoma, a rare form of cancer.

Today, HIV/AIDS has become a global problem afflicting most countries of the world especially in Sub-Saharan Africa. In 2007, a total of 33,000,000 people worldwide were living with HIV/AIDS (UNAIDS, 2008). Of this number, about 67 per cent are from Sub Sahara Africa. AIDS related deaths in Sub-Saharan Africa for that year were 1,500,000 which constituted 6.8 per cent of the people living with HIV/AIDS. Southern African countries are the most hit as far as HIV infections are concerned (AVERT, 2009). South Africa, Namibia, Zambia, and Zimbabwe have adult prevalence rates of between 15- 20 percent. Botswana, Lesotho and Swaziland all have prevalence rates exceeding 20 per cent. According to the former president of South Africa, Nelson Mandela (1977), AIDS kills those on whom society relies on to grow crops, work in the mines, factories, the schools and hospitals and govern countries. Thus AIDS is counter-productive as it affects the human resource base of a country.

In Ghana, the first AIDS case was identified in 1986 and even though the prevalence rate has been kept below five per cent, the number of People Living with HIV/AIDS (PLWHA) in the country has been increasing over the years (Ghana AIDS Commission, 2007). From the first HIV case in 1986, 121,000 cases had been reported by the Ministry of Health and about 297,000 Ghanaians were estimated to have been infected by the disease by 2007 (NACP, 2001)

Ghana's HIV prevalence rate is said to be stabilizing, having fallen from 3.1 per cent in 2004 to 2.7 percent in 2005 , and 1.9 percent in 2007 (NACP 2004, 2005, and 2007). However, there is significant variation in prevalence rates with respect to geographic, gender, age, and urban-rural distribution (Ghana AIDS Commission, 2007). In 2006, the prevalence by district Sentinel sites ranged from 0 per cent in the North Tongu District in



the Volta Region to 8.4 per cent in Agomanya in the Eastern Region. Regionally, the prevalence rate ranged from 1.3 per cent in the Northern region to 4.9 per cent in the Eastern region. According to the Ghana AIDS Commission (2007), there are very high prevalence rates among female Commercial Sex Workers (CSW) in Accra and Kumasi. In Accra, the prevalence rate among roaming CSW was 46.8 per cent while that of the 'sitters' was 52.2 per cent. In Kumasi, the prevalence rates were 24.0 per cent and 39.3 per cent for 'roamers' and 'sitters' respectively.

Premising on the increasing prevalence rates especially among vulnerable groups in the country, several attempts have been made to arrest the problem. One of the earliest attempts of government to check the HIV/AIDS pandemic was the establishment of the National AIDS Control Programme (NACP) in 1987 with the responsibility of coordinating the national response to the epidemic. The initial approach to managing the HIV/AIDS problem was purely medical (Ghana AIDS Commission, 2007). However, it soon dawned on government that a multidisciplinary approach and not just a health focused approach was required to deal with the issue and this led to the establishment of the Ghana AIDS Commission in September, 2001. The Ghana AIDS Commission, a supra-ministerial body chaired by the president of the Republic of Ghana was charged to find strategies and preventive measures to reduce new infections and also liaise with other agencies in the provision of support for PLWHA.

The Ghana AIDS Commission subsequently prepared the National Strategic Framework 1 & 2 between 2001 and 2009. The Framework focused on several intervention areas of which the reduction of new transmissions among vulnerable groups was one. The National Integrated Behaviour Change Communication Programme implemented under the National Strategic Framework 1 & 2, introduced preventive measures which focused on abstinence, faithfulness, condom use, reduction of number of sexual partners and stigma reduction. Between 2001 and 2006, over 3000 implementing agencies comprising Metropolitan, Ministries, Departments and Agencies (MDAs), Regional Co-ordinating Councils (RCCs), Metropolitan, Municipal and District Assemblies (MMDAs), Faith Based Organisations (FBOs), Community Based Organisations (CBOs), and private sector organizations were supported under the Ghana AIDS Response Fund (GARFUND) to undertake various HIV/AIDS education activities all over the country (Ghana AIDS Commission, 2005).



These activities are still being funded by the Ghana AIDS Commission under the current Multi-sectoral HIV/AIDS Programme (MSHAP).

## **1.2 Problem Statement**

HIV and AIDS has become a problem of global concern since its discovery in the early 1980s and is one of the major causes of death especially in sub-Saharan Africa and many developing countries including Ghana. The prevalence rate in Ghana has shown a declining trend in the general population since 2006 (NACP, 2008) which suggests that the epidemic is stabilising or better still, being effectively put under control. On the contrary, this could be deceptive in view of the fact that large numbers of people are newly infected with the virus each day and others are dying of AIDS.

Over the years, various programmes have been implemented in Ghana aimed at reducing new transmissions of the disease and also reducing the impact of the disease on the infected and the affected. These programmes include Behaviour Change Communication (BCC), Voluntary Counselling and Testing (VCT), treatment, care and support for people living with HIV&AIDS.

The Northern region of Ghana is the largest administrative region in the country with a land mass of 70,384 sq. km. The 2000 National Population and Housing census put the total population of the region at 1,820,000 and a population growth rate of 2.9 per cent. The huge land mass and the population distribution of the region present peculiar challenges for service delivery.

In terms of HIV prevalence rate, the region has one of the lowest in the country. Nonetheless, the situation is of great concern because the prevalence rate in the region has appeared very unstable in recent years. For example, the region had the lowest prevalence rate of 1.7 per cent in 2007, but it was also the region with the highest percentage increase in the prevalence rate over the previous year. The percentage increase was 46 percent from a prevalence rate of 1.3 per cent the previous year (Ghana Health Service, 2007). This underlines the need for the intensification of HIV&AIDS prevention interventions in the region.

The HIV&AIDS prevention and management programmes mentioned above have been implemented by governmental organisations, non-governmental organisations and private sector groups and individuals in the region especially in the past eight years. However, it cannot be said with certainty that these programmes have impacted positively on the lives of the people as far as HIV&AIDS knowledge, behaviour change, and access to VCT and treatment and care services are concerned. It is for this reason that this research is set out to make an assessment of the various programmes in the region and to make appropriate recommendations.

### 1.3 Research Questions

The study seeks to find answers to the following questions:

1. What is the extent of awareness, knowledge, and behaviour relating to HIV transmission, prevention and the services available?
2. Do people access Voluntary Counselling and Testing (VCT) and Prevention of Mother to Child Transmission (PMTCT) services?
3. Do PLWHA have adequate access for antiretroviral drugs, nutritional counselling and support?
4. What is the extent of HIV&AIDS related stigma and discrimination against People Living with HIV&AIDS (PLWHA)?
5. What are the main challenges in the implementation of HIV&AIDS prevention and management programmes?
6. What are the ways forward?

### 1.4 Objectives

The general objective of the study is to assess the programmes for the prevention and management of HIV&AIDS in the Northern region and make appropriate recommendations.

The specific objectives include:

1. To assess the awareness, knowledge and behaviour related to HIV&AIDS transmission, prevention and treatment services ;
2. To examine the accessibility of VCT services and facilities in the region;
3. To examine the accessibility of Antiretroviral therapy (ART), PMTCT, nutritional support and counselling services.
4. To assess the extent of HIV&AIDS related stigma and discrimination against PLWHA;

5. To examine the main challenges confronting HIV&AIDS prevention and management programmes in the region; and
6. To make recommendations to inform policy.

### **1.5 Scope**

Geographic Scope: The geographic scope of study specifically is the Tamale Metropolis and the Yendi Municipality of the Northern region of Ghana .

The specific issues of the study are as follows:

- HIV&AIDS awareness, knowledge and behaviour.
- Access to VCT, PMTCT and ART services.
- Prevention, treatment, care and support for PLWHA
- HIV&AIDS related stigma.

### **1.6 Justification for Study**

The study is deemed important in view of the fact that the HIV&AIDS phenomenon is a developmental problem of great magnitude globally. Since there is no known cure yet for the disease, prevention and management remain the most effective means of controlling the disease. It is my hope and conviction that recommendations of the study would help in the future planning of HIV&AIDS prevention and management programmes in the region. The topic is also of interest to the researcher who is a social worker by profession and is concerned with the welfare of the vulnerable including PLWHA.

The Northern region is taken as the geographical scope of the study because of the researcher's familiarity with the area. The researcher hails from the region and during the 2000 Population and Housing Census worked in the Tamale Metropolis as supervisor. He has also worked in Yendi for the past ten years.

### **1.7 Organisation of Study**

The study is organized into five chapters. Chapter one deals with general Introduction. It contains the problem statements, research questions, objectives, scope and justification of the study.

Chapter two dwells on the review of literature on HIV&AIDS prevention and management programmes with emphasis on sub-Saharan Africa including Ghana. The review covers topics such as modes of HIV infection; prevention mechanisms, VCT, ART, HIV&AIDS knowledge, and stigma related to HIV&AIDS . The challenges of HIV&AIDS prevention and management as well as the theoretical underpinnings of the study and the conceptual framework have also been outlined at the end of the chapter.

Chapter three addresses the methodology of the study into detail. It discusses the determination of the sample population, the sample frame, the methods and techniques of sampling, sample size determination, and various methods of data collection and analysis. The chapter also discusses the profile of the study area.

Chapter four is devoted to the analysis of data while chapter five is on the summary of major findings, recommendations, and conclusion of the study.

### **1.8 Limitations of Study**

The researcher was constrained in data collection and could not have the full complement of the data required especially from the Tamale Teaching Hospital and Bangu Manga Integrated Rural Development Society, a nongovernmental organization in Yendi. This was mainly due to some bureaucratic and other bottlenecks. Notwithstanding this limitation, the results are , reliable and useful for any purposes of evaluation.

## CHAPTER TWO

### HIV PREVENTION AND MANAGEMENT PROGRAMMES

#### 2.1 Introduction

In the previous chapter, the problem statement, research questions and objectives of this study were outlined. This chapter provides a review of literature on a wide spectrum of the HIV&AIDS phenomenon. It first provides an overview of the various Modes of HIV infection and prevention. The chapter further discusses HIV&AIDS knowledge, attitudes, and perceptions in sub-Saharan Africa especially Ghana. Further, the chapter addresses VCT and its importance, HIV&AIDS treatment as well as stigma related to the disease and its effects on prevention and management programmes. Last, the theoretical underpinning and lessons drawn from the literature have been presented.

#### 2.2 HIV Modes of transmission

HIV is a virus that destroys the biological ability of the human body to fight diseases such as Tuberculosis (TB) and pneumonia. (NACP, 2001). The virus is said to belong to a group of lentiviruses, (viruses that take considerably long periods of time to produce symptomatic effects in the body). However between the time of infection and the time that the symptoms of AIDS are manifested, the virus can be transmitted. The important fact here therefore is that healthy looking people can be carriers of the virus. AIDS is an advanced form of HIV reflecting a combination of signs and symptoms including prolonged diarrhoea, prolonged fever and a remarkable weight loss in a person backed by a positive HIV antibody test (NACP, 2001).

According to the United States Agency for International Development (USAID) (2005), the main mode of HIV transmission in Ghana is heterosexual intercourse otherwise known as pinoviginal sex which is said to be accounting for 75 to 80 per cent of all HIV infections in the country. But while it is true that heterosexual relationship constitutes the most significant mode of HIV transmission, a number of factors facilitate this. One of the factors is the presence of a sexually transmitted disease (STD), such as syphilis or gonorrhoea in either partner. According to the NACP (2001), these diseases form ulcers and sores that facilitate the transfer of the virus. The implication of this is that efforts to stem the spread of the disease must include safe sex measures such as condom use and the adherence to single and uninfected sexual partner, and treatment for Sexually Transmitted Infections (STIs).



Vertical transmission or Mother to Child Transmission (MTCT) of HIV is another major form of transmission and accounts for about 15 per cent of total transmission in the country (USAID, 2005). According to the Ghana AIDS Commission (2001), children receive the infection from their mothers during pregnancy, at the time of birth or through breastfeeding and about 30 to 40 percent of infants born to infected mothers will themselves be infected. MTCT of HIV has the potential of increasing child mortality through AIDS. This underlines the need for VCT and Antiretroviral Therapy (ART) for pregnant women.

Other modes of transmission contribute much less to the spread of the disease in Ghana but nonetheless are important for consideration. These include contaminated blood, reused needles, and other unsterilized medical tools such as knives or razor blades. It is also important to note that, traditional practices, such as female circumcision, tattooing and activities of 'wanzams' that involve cutting and potential exposure of the blood to germs are possible ways by which HIV can be transmitted. All these put together accounts for about five per cent of the total HIV infection in Ghana (NACP, 2001).

Equally important is how HIV is not transmitted. The virus is not transmitted by mosquitoes or by casual contact such as shaking hands or lying on the same bed or by sharing bowls or cooking utensils. HIV-infected persons therefore need not be shunned or avoided (NACP, 2001).

### **2.3 HIV prevention**

The three main mechanisms of HIV transmission already outlined are heterosexual relationship, MTCT, and the use of unsterilized body cutting instruments. The implication is that in designing programmes for HIV&AIDS, care must be taken to include all feasible approaches.

#### **2.3.1 Prevention of sexual transmission**

Sexual intercourse (heterosexual intercourse) has been known to be the mechanism most responsible for HIV infection in the sub Saharan Africa and for that matter Ghana (USAID, 2005). Consequently, comprehensive sex education for young people must be an essential part of HIV prevention. Comprehensive education could include training the youth in life



skills including the negotiation for healthy sexual relationship as well as adequate information about how to practice safe sex. (AVERT, 2010)

### The ABC of HIV Prevention

Uganda is one of the few countries that have been cited as rare examples of success in an African continent facing severe AIDS crisis. The approach known as the ABC of HIV prevention was used extensively in the 1980/90s and was seen to have played a major role in reducing the country's prevalence rate from 15 per cent in the early 1990s to 5 per cent by 2001 (AVERT, 2010). The programme first encouraged sexual abstinence until marriage. Secondly, those who were sexually active and could not abstain from sex were encouraged to stick to one partner and finally, the use of condom was recommended for those who could neither abstain nor remain faithful to a single partner.

Being faithful to your partner or 'zero grazing' - was the dominant message of early HIV prevention campaigns led by President Museveni. According to AVERT (2010), the term 'zero-grazing' came from the agricultural practice of tying livestock to a post and restricting them to a zero-shaped section of grass to graze. The implication is that married or sexual couples should limit their sexual activities to the confines of those unions in order to limit HIV infection. Surveys from the late 1980s to 1990s showed that encouraging fewer sexual partners was effective in reducing HIV prevalence rates. According to AVERT (2010), the World Health Organization's reports between 1989 and 1995 showed that the number of Ugandan men reporting three or more non-marital sexual partners fell from 15 percent to 3 percent which could have been a major factor contributing to the drastic drop in the HIV prevalence of that country. But much as abstinence until marriage is an important method for HIV prevention it must also be emphasized that abstinence cannot guarantee safety of HIV infection if it was limited to only one partner. But even if both partners abstained until marriage, there must be mutual faithfulness throughout the marriage to guarantee a continued negative HIV serostatus for both partners.

The ABC of HIV prevention in Uganda promoted and distributed free condoms with financial support from the World Bank. AVERT (2010) asserts that condoms, if used consistently and correctly, are highly effective at preventing HIV infection. Therefore condoms should be made readily and consistently available to all those who need them. But condoms need not only be used consistently and correctly, they must also maintain the right

quality. In the Uganda case, the momentum of condom distribution was lost in 2004 when the Ugandan government issued a nationwide recall of the condoms distributed free in health clinics, due to concerns about their quality. Millions of condoms were incinerated leading to a scarcity of condoms by 2005 (AVERT, 2010).

### 2.3.2 Prevention of Mother to Child Transmission (PMTCT)

Mother to child transmission of HIV is one of the major modes of transmission of the disease in Ghana. The three stages at which this can happen are during pregnancy, at birth, and during the process of breastfeeding (Ghana AIDS Commission, 2001). ART has been considered as effective ways of reducing the risk of infant infection (AVERT 2010).

According to the WHO (2006) all pregnant women eligible for ART must have access to it if the goal of eliminating HIV infection in infants and young children is to be achieved. Therefore, all countries must adopt more efficacious antiretroviral regimens for preventing MTCT among pregnant women.

In Ghana, PMTCT services started in 2002 and have seen significant scale up between 2002 and 2007 (Ghana AIDS Commission, 2007). By September 2007, 407 PMTCT sites had been established in 138 districts and a total of 635 service providers had been trained. In 2005 a total of 20,296 clients received PMTCT services, out of which 748 representing 3.7 percent were HIV positive with 584 of these receiving ART. In 2006, 36,155 received PMTCT services out of which 1,378 or 3.8 percent being positive and 1,239 received ART. As at September 2007, 109,334 received PMTCT services, 3250 were positive and 2011 received ART. There has therefore been a five-fold increase in the number of clients accessing PMTCT from 2005 to 2007 (Ghana AIDS Commission, 2007).

Table 2.1 gives details of PMTCT services in Ghana from 2005 to 2007.

**Table 2.1: PMTCT Services in Ghana from 2005 to 2007**

	2005	2006	2007
No of clients received PMTCT	20,296	36155	109,334
No of clients who were HIV positive	748	1378	3250
Percentage of clients positive	3.7	3.8	3.2
Estimated number of HIV infected pregnant women over the last 12 months	19670	19747	19918
Percentage of HIV infected pregnant women who received antiretroviral s to reduce the risk of mother to child transmission	2.7	6.3	10.1

**\*2007 (January- September)**

**Source: Ghana AIDS Commission (2007)**

According to the Ghana AIDS Commission (2007), the target for ART coverage for the PMTCT in Ghana is 80 percent by 2010. Up scaling PMTCT services would require not only the expansion of facilities and increase in health personnel offering services, but also increased education on the importance for pregnant women to access counselling and testing for PMTCT services .

#### **2.4 Voluntary Counselling and Testing (VCT)**

Voluntary Counselling and Testing (VCT) is a client-initiated HIV testing and remains critical to the effectiveness of HIV prevention and management (UNAIDS, 2004). It is the process by which an individual or a couple undergoes counselling to enable them make informed choices about being tested for HIV. According to UNAIDS (2004), the five principles that guide all models of VCT are as follows:

- Services must be confidential
- Attendance must be voluntary
- Accessing the services must go through both pre-test and post-test counselling
- Clients who test positive must not be discriminated against
- Clients must have ongoing services in prevention and care and support

Confidentiality refers to the client's right to expect that health professionals or HIV counsellors will not disclose personal health information including HIV test results without

the consent of the client. The issue of confidentiality therefore must be a key factor in the patronage of services at any VCT site.

#### 2.4.1 Importance of VCT to HIV&AIDS prevention and management

According to the UNFPA (2004), VCT irrespective of the test results offers several benefits to individuals, families and communities.

For people who test positive, VCT services can link them not only to options for treatment, care and support, but also allow for adoption of preventive measures against reinfection and also avoid spreading the disease to other people. By knowing one's positive status, HIV positive individuals may become more motivated to adopt a more healthy lifestyle that improves their health status and slows the progression from HIV infection to symptomatic HIV disease and full blown AIDS – for example, avoiding further risks of infection with other viral strains and STIs, seeking early treatment for opportunistic and HIV/AIDS related infections, eating healthy food, avoiding tobacco and reducing stress (UNFPA. 2004)

When VCT results prove negative for clients, they would be motivated to adopt safer sexual lifestyles in order to maintain a negative serostatus. According to the UNFPA (2004), VCT is an entry point for HIV prevention, thus there is the need to continue to advocate for and to support the provision of high quality counselling and testing for young people, pregnant women and individuals most vulnerable to the infection.

#### 2.4.2 HIV voluntary counselling and testing models

Various VCT models are designed to reach different target groups and achieve different goals. One testing model may provide an entry point to clinical care for those living with HIV/AIDS, while another may help prevent mother-to-child transmission of HIV (PMTCT), and yet another may serve as an HIV prevention tool for the general population (FHI, 2005). Six Counselling and Testing models identified by FHI(2005) are the Stand alone model, the Integrated model, the Quasi-Integrated model, the Private sector model, the mobile model and the Home based model. Each of these has its advantages and disadvantages .

##### The stand-alone Model

Stand-alone sites, also known as freestanding sites, are generally operated by nongovernmental organizations (NGOs) and are not associated with medical institutions.



Usually Counselling and Testing (CT) is done exclusively at these sites and the staff dedicated full-time to providing counselling and testing (FHI, 2005). For reasons of cost and cost-benefit, stand-alone sites are often located in high population density areas and where HIV infection rates are high.

The advantages of the stand-alone model of CT include the following:

- Quality control is easier because staff is completely focused on providing CT.
- The model offers a unique opportunity to focus extensively on prevention and risk reduction
- Sites attract population groups that might not otherwise attend health-facility based CT. (young people, couples and people of high social standing might prefer to use stand-alone services.)
- Flexible hours of operation and adequate staffing levels improve accessibility
- Sites can meet increasing demand for CT services. (Experience from Malawi, Thailand, Uganda and Zimbabwe has shown this).

This model however has some disadvantages and one of them is high start-up capital. Also, medical and psychosocial follow up can be difficult because sites are not associated with medical or other support services. Stigma may also surround services because of their exclusive role in HIV Counselling and Testing (FHI, 2005)

The integrated model

In the integrated model, Counselling and Testing (CT) services are offered in medical settings (primarily public sector) and are initiated by the health care providers. CT is provided alongside other services such as general in- and out-patient, tuberculosis (TB), antenatal, and sexually transmitted infection (STI) care.

The two main approaches to the integrated model are diagnostic CT and routine CT. Diagnostic CT is offered to patients who report at the health facility with clinical HIV symptoms. It maximizes identification of HIV-positive individuals for the purpose of referring them for treatment, care and support (FHI, 2005).

Routine CT is integrated into settings such as the antenatal, STI or TB clinics as a regular part of standard care. CT is regularly offered alongside other tests, and a client can opt out if he/she does not wish to be tested. (FHI, 2005).

Benefits or advantages of the integrated model include the following.

- i. CT is promoted as part of general health services, allowing the “normalization” of HIV.
- ii. Health care workers are involved directly in HIV prevention activities.
- iii. This model allows direct referral to other relevant care, such as antiretroviral therapy, management and prevention of opportunistic infections, TB, PMTCT, family planning and welfare support.
- iv. CT is brought to the high volume of potential clients who visit public facilities.
- v. Potential for replication and scale up are high due to lower start-up costs.
- vi. Staff can provide services beyond the basic counselling typically available at stand-alone sites.(FHI, 2005)

But the integrated CT model also has the following weaknesses:

This model has potential to dilute other health care services and lower quality CT services.

- i. It is difficult to enforce quality assurance measures and maintain the quality of CT service delivery, especially where client load is high.
- ii. Integrated CT can cause a shortage of personnel and competing demands for service providers’ time (FHI, 2005)

#### The Quasi-integrated model

Quasi-integrated sites afford NGOs the opportunity to provide CT in public sector health facilities; both the NGO and the facilities contribute to managing the services. According to FHI (2005), this model capitalizes on the strengths of both stand-alone and integrated models and its success greatly depends upon the quality of the partnership. Uganda offers a good example of NGOs linked with health facilities in the provision of HIV VCT services. One great advantage of the quasi- integrated model is that services can be better funded and managed than if the health facility were running them alone (FHI, 2010).



### The private sector model

The private sector counselling model involves the provision of CT services mostly in private medical offices and as a variant of integrated CT, it reaches people in higher income brackets who are less likely to use public-sector services (FHI, 2005). The advantages of the private sector model are as follows:

- i. Practitioners are committed to high quality care because the client is paying higher fees for services.
- ii. Clients perceive private providers as a source of private, confidential services.
- iii. Services are responsive to client needs

But the following disadvantages are associated with the private sector CT model;

- i. Private-sector services are inaccessible to the poor and uninsured.
- ii. Services do not always adhere to national/international quality standards.
- iii. Providers often have no or inadequate training in HIV counselling.

### The mobile counselling and testing model

According to FHI (2005), mobile HIV CT model takes the services into the community by providing CT services either out of a van or from designated places in the community. In some cases, bicycles and motorcycles can be used. Under this model, a team of providers sets up a temporary site where they offer services to the general population, to defined groups such as a church congregations, employees of a company, or to hard-to-reach groups such as sex workers, truck drivers, street boys or those with no fixed address (FHI, 2005).

Mobile CT has the advantage of improving access for hard-to-reach and rural populations. It also has the advantage of bringing services to the doorsteps of beneficiaries. However, the mobile CT can be expensive and not cost-effective; it requires a lot of resources (equipment and manpower). Another disadvantage of the mobile CT model is that it can be difficult to ensure follow-up after post-test counselling. It may also be challenging to ensure quality (especially of testing) at temporary sites (FHI, 2005)

### The Home counselling and testing model

Home-based CT is similar to the mobile model in that CT is offered within the home to family members, including children where appropriate. For this reason, it is sometimes

referred to as the family-based model (FHI, 2005). According to AVERT (2010), in Bushenyi district of Uganda, door-to-door testing contributed to a radical reduction in HIV prevalence in the early 2000s: from eight percent to about three percent in three years.

Home-based CT has the advantage of addressing the needs of the entire family at once. Also, discussion on prevention and behaviour change may be more effective in the context of the family and the home. However, the Home based CT model could be expensive and time consuming as the provider must move from home to home. Testing everyone at the same time in the home could also pose problems for counsellors in disclosing individual tests results.

## **2.5 HIV&AIDS Management**

The New York State Department of Health AIDS Institute (2006) defines HIV&AIDS management as multi-step process that ensures timely access to and coordination of medical and psychosocial services for a person living with HIV/AIDS and, in some cases, his or her family/close support system. Premising upon this definition, the management of HIV&AIDS would include the administration of antiretroviral drugs, treatment of PLWHA of opportunistic infections, counselling, and nutritional support.

### **2.5.1 Administration of antiretroviral drugs and treatment of opportunistic infections**

Antiretroviral drugs are not only capable of prolonging the lives of people living with HIV/AIDS but are also effective in improving the quality of life of such people thus making them more productive (GHS, 2007).

According to the GHS (2007), 6085 people in Ghana were placed on anti-retroviral therapy in 2007. This represents almost 100 per cent increase over the 2006 figure of 3278. This performance was a result of increase in the number of ART service delivery points. The number of districts providing ART rose from 32 in 2006 to 69 in 2007 while the number of hospitals with capacity to provide ART increased from 46 to 95 representing over 100 percent increase in each case within the same period. The cumulative number of people who were on ART by 2007 was 13,249 while the cumulative number of deaths among those placed on ART was 511 or 3.8 percent. At the end of 2007 the number of people still on treatment stood at 12,315 or 91.7 percent of the number who initiated treatment (GHS,

2007). But in spite of the significant increase in the numbers of PLWHA with antiretroviral initiated treatment, this represented just 19.5 percent of the total number of PLWHA requiring ART in the country (GHS, 2007). This implies that utilization of ART services in the country is generally low

Opportunistic infections are diseases that take advantage of the weakened immune system as a result of HIV infection. These infections include TB, diarrhoea and pneumonia. Treatment of opportunistic infections by PLWHA can be expensive. According to Nabila, et al (2001), annual estimated cost for the treatment of opportunistic infections experienced by an AIDS patient in Ghana was about 420 Ghana Cedis. This did not include the cost of antiretroviral drugs. Here, the question about the financial accessibility of PLWHA to ART and treatment of opportunistic infections (OI) become relevant. But up scaling of VCT and ART would not only depend on financial access, but also the type of facilities available and the numbers and quality of counsellors available. (AVERT, 2010)

#### 2.5.2 HIV&AIDS and Nutrition

According to USAID (2004), nutrition counselling, care, and support are integral to comprehensive HIV&AIDS management. Nutrition for positive living includes nutrition counselling and support for PLWHA to improve food intake and maintain some weight. The HIV patient develops malnutrition due to reduced ingestion of food, low absorption of nutrients and changes in his or her metabolism, which affects the growth cells in the body (ECA, 2010). PLWHA therefore require additional daily nutrients to maintain some level of body weight.

According to USAID (2004), supporting ARV (Antiretroviral) clients in appropriate dietary responses helps ensure successful treatment. The Food and Agriculture Organisation (FAO, 2010) enumerates the following as good nutrition for PLWHA:

- maintaining body weight and strength;
- replacing lost vitamins and minerals;
- improving the function of the immune system;
- extending the period from infection to the development of the AIDS disease;
- improving response to treatment; reducing time and money spent on health care;
- keeping HIV-infected people active, allowing them to take care of themselves, their family and children; and

- Keeping HIV-infected people productive, able to work, grow food and contribute to the income of their families.

As much as good nutrition is an important part of a successful HIV&AIDS management, PLWHA especially in the sub-Saharan African countries may not have guaranteed food security. According to the FAO (2010), food insecurity and malnutrition is endemic in Africa with over 40 per cent of children aged below five stunted due to food deprivation? In Zimbabwe, rationing of food to PLWHA has been a major strategy adopted to improve the food security situation among PLWHA (Zimbabwean Red Cross Society, ZRCS 2006)

## **2.6 HIV&AIDS related Knowledge, Attitudes, Perceptions and Behaviour in Sub Saharan Africa**

Despite the international attention that the HIV/AIDS epidemic has received, knowledge of the disease is not universal among young people in Sub-Saharan Africa. Even among those who know about HIV/AIDS, perceptions of personal risk, attitudes, and behaviours can be at odds with reality (Bankole et al., 2004).

### **2.6.1 Knowledge about sexual prevention**

The ABC (abstinence, be faithful to one uninfected partner, condom use) have been one of the main prevention methods in Ghana to reduce the risk of HIV infection. According to the GSS et al. (2004), knowledge of these prevention methods is quite high among the general population. Seventy nine percent of women and 83 percent of men know that abstinence can reduce the risk of becoming infected. Eighty-six percent of women and 90 percent of men know that being faithful to one uninfected partner reduces the risk of HIV infection. Seventy three and 82 percent of men and women respectively, know that the use of condoms is a way to reduce the risk of HIV infection.

Whereas knowledge of HIV prevention is high, HIV/AIDS-related attitudes and behaviours are mixed. For instance, in the general population, only 26 percent of women and 36 percent of men would buy fresh vegetables from a vendor with AIDS (GSS et al., 2004). Also, according to the report of the Ghana Demographic and Health Survey (GDHS) of 2003, 69 percent and 78 percent of women and men respectively aged between 15-49 years correctly identified the use of condom and limiting sex to one uninfected partner as means of reducing HIV infection. But in the same survey, only 28 percent and 39 percent of women and men respectively aged between 15-49 years believed that a healthy looking person can



have HIV. High proportions of women and men also erroneously believed that mosquito bites and eating with an infected partner can spread the disease. On condom use, only 28 percent and 45 percent of women and men respectively aged between 15-49 years reported using condom at their last sex with a non-regular partner. The implication here therefore is that even though awareness about HIV&AIDS may be said to be high, specific and in-depth knowledge about HIV infection and prevention may be inadequate. It also means that knowledge per se cannot be equated to behaviour change.

#### 2.6.2 Knowledge of ABC Prevention Methods and HIV Testing

The GSS et. al (2004) reveals that there are significant associations between HIV testing and knowledge of the ABC prevention methods. The survey showed that sexually experienced women age 15-49 who had ever been tested for HIV were more knowledgeable about abstinence, limiting sex to one uninfected partner, and condom use for infection prevention compared with those who had never been tested. Among women who were sexually active in the year preceding the survey, HIV testing was also associated with greater knowledge of use of condoms for HIV prevention. On the other hand, sexually experienced men who had been tested for HIV were only more knowledgeable about limiting sex to one uninfected partner. According to UNICEF (2007), 43.2 percent and 24.8 percent of urban and rural women respectively in the Northern region who are aged 15-49 years know a place to go for HIV test. However, only 9.7 percent and 3.5 percent of urban and rural women respectively have ever been tested.

#### 2.7 HIV&AIDS related stigma and discrimination

UNAIDS (2002) describes stigma as a quality that significantly discredits a person in the eyes of other people. Stigma is also expressed in the negative way in which individuals come to see themselves (self stigma). ICRW (2004) defines HIV&AIDS discrimination as the unfair and unjust treatment of an individual based on his or her real or perceived HIV status. HIV&AIDS related discrimination thus occurs when a distinction is made against a person that results in being treated unfairly and unjustly on the basis of his/her HIV status. But stigma and discrimination against PLWHA could stem largely from misinformation and ignorance. HIV is often thought to be highly contagious and this assumption makes people often suspect that individuals with HIV or AIDS pose a threat to the community. According to ICRW (2004), this misconception is not limited to the general population since in several cases, research has shown that even some medical personnel stigmatise and discriminate

against PLWHA. In Ethiopia, Tanzania, Vietnam and Zambia, people commonly expressed the fear that HIV could be transmitted through ordinary, daily interactions with people living with HIV or AIDS, and that no exchange of body fluids was needed for transmission to occur ICRW (2004).

Another major misconception contributing to HIV&AIDS stigmatization and discrimination is the linkage of HIV infection with promiscuity and deviant lifestyles. According to UNAIDS (2002) “HIV/AIDS-related stigma builds upon and reinforces earlier negative thoughts.

People with HIV/AIDS are often believed to have deserved what has happened by doing something wrong. Often these ‘wrongdoings’ are linked to sex or to illegal and socially frowned-upon activities, such as injecting drug use. Men who become infected may be seen as homosexual, or as having had sex with prostitutes. Women with HIV/AIDS are viewed as having been ‘promiscuous’ or as having been sex workers.” (UNAIDS, 2002). But perceptions often held about PLWHA after all might not be true.

#### 2.7.1 Effects of Stigma and Discrimination on HIV&AIDS Prevention and Management Programmes.

The fear of HIV related stigma has a profound impact on the effectiveness of HIV/AIDS prevention, treatment and care programs because people who are infected may be reluctant to use these services (ICRW 2004). Fewer people may seek HIV testing because they fear a positive test result, which is linked to the stigma and its social repercussions. People who do get tested might not return for their results for fear of being seen at a clinic known to test for HIV, which could raise suspicions about their health. Stigma is thus a serious barrier to effective HIV VCT as well as access to HIV&AIDS related treatment. Stigma also affects people’s willingness to disclose a positive test result to others, including their spouses and can lead to new multiple infections of the virus (ICRW, 2004). According to Okechuku (2007), access to care is affected by stigma in at least one of three ways, namely;

- (a) Barrier to care for HIV positive individuals,
- (b) Reluctance of health care providers to treat individual with HIV
- (c) Stigmatization of provider of ancillary or support services to PLWHA which would include personnel of health institutions

#### 2.7.2 Strategies for Reducing HIV&AIDS Related Stigma

From the above, it is clear that stigma has far reaching effects on the control of HIV&AIDS and it is necessary to put in place stigma limitation strategies. According to Ukechuku



(2007), strategies to prevent stigma must include the location of HIV prevention programs within targeted communities. These programs should target their messages at both HIV positive and negative people. Also, prevention messages should counteract the phenomenon where individuals disassociate their own sexual behaviours with the risk of contracting HIV. Additionally, these messages must promote non-stigmatizing images of PLWHA and this must be done in a continuous and consistent manner (Okechuku 2007). Lastly, confidentiality is required of health personnel who treat PLWHA in order to reduce stigma.

## **2.8 Challenges in the Implementation of HIV&AIDS Prevention and Management**

### **Programmes in Sub-Saharan Africa and other Less Developed Parts of the World.**

At the United Nations General Assembly Special Session on HIV&AIDS in June 2006, member countries agreed to work assiduously towards achieving the goal of universal access to comprehensive prevention, care, and treatment and support by 2010 ( GAC, 2007). The deadline for that goal has almost elapsed with the goal very far from being achieved in spite of the progress made. The challenges in the implementation of HIV&AIDS programmes in sub-Saharan Africa and other less developed parts of the world are many and varied

#### **2.8.1. Inadequate workforce**

The challenge of health workforce crisis is one of the major obstacles to the successful up scaling of HIV&AIDS prevention and management services. According to the Wordpress (2006), there are simply not enough doctors, nurses, pharmacists and other health professionals in Africa to provide effective preventive health and clinical care. The continent with 10 percent of the global population and over 65 percent of the global diseases burden accounts for less than 5 percent of the global health workforce. The shortage of skilled staff is also responsible for difficulties with the implementation, monitoring and evaluation of programs, and shoddy provision of services (UNAIDS 2004). There is so much pressure on the health systems and personnel that care for PLWHA does not seem to be a priority.

#### **2.8.2 No sustainable Funding**

According to Wordpress (2006), one of the critical challenges to successful up scaling of HIV&AIDS prevention and management services is the looming funding crisis facing the continent and other parts of the developing world. The fact of the matter is that African countries have depended heavily from external financial support for their HIV&AIDS

programmes. In 2005, out of an estimated \$8.3 billion spent on HIV/AIDS in low- and middle income countries, only \$2.5 billion or 30 percent came from domestic sources (Worldpress, 2006). In Ghana, in 2008, development partners such as the Danish International Development Agency ( DANIDA), the United states Agency for international Development (USAID), joint United Nations programme on HIV&AIDS (UNAIDS), the United Nations Development programme (UNDP), and the Danish fund for international development (DFID) contributed \$32,588,547 for the HIV response in Ghana and continue to contribute about 84 percent of the HIV&AIDS budget in the country ( UNAIDS, 2010). But the question to ask is what happens if the donor funding inflows cease or are drastically reduced? The problem of unsustainable funding has the potential to derail HIV&AIDS prevention and management programmes in Africa. Economic Commission for Africa (ECA, 2010) reveals that Mozambique's HIV&AIDS strategic plan from 2000-2002 was underfunded and many of the planned activities were not actually implemented.

#### 2.8.3 Infrastructural and Logistic Challenges

Adequate and effective logistics and infrastructure especially in the areas of drugs and provision of VCT and treatment centers are important features of an effective HIV&AIDS response. According to Worldpress (2006), infrastructure needs for an effective health system should include timely transportation of goods and services, stable electricity and telecommunication services, and access to proper sanitation and water supplies.

#### 2.8.4 Socio-cultural and Economic Factors

Commission for Africa (2010) identified one of the important challenges of the HIV&AIDS response in Mozambique as the limited access to health services, the poor transportation network and ineffective communication systems. Less than 40 percent of the populations have access to health services and fewer than 50 percent of births are attended by skilled personnel. The roads and means of transportation available in some areas of the country do not allow proper communication to or from health centres.

Socio-cultural and economic factors peculiar to African countries may also pose severe challenges to the HIV&AIDS response on the continent. These practices which include polygyny, early marriages for young women and widowhood rites constitute potential avenues for increased infection especially among women (Bankole, 2004).

Young people in many countries in Africa face rural underdevelopment, widespread poverty, poor educational opportunities and limited access to radio, television and

newspapers which are possible sources of information about HIV/AIDS. In addition, they confront traditional social values that prescribe strict gender roles for males and females some of which condone men's sexual promiscuity while placing a high value on female fidelity (Bankole, 2004). This further emphasizes the high female vulnerability to the pandemic.

Furthermore, according to Bankole (2004), Africa being part of the world where most people lack adequate housing, food and clothing, the everyday struggle to survive absorbs most of their energy and resources. Young people in such settings may consider other needs to be more pressing than protecting their sexual and reproductive health. High levels of poverty is thus a major challenge to HIV&AIDS prevention and management because the phenomenon does not only inhibit the ability of the youth in practicing safe sex but can also prevent people from accessing services as VCT and ART.

#### 2.8.5 Stigma and Discrimination against PLWHA.

High stigma and discrimination against PLWHA remains a major challenge to HIV&AIDS prevention and management. According to ICRW (2006) studies in Tanzania and Zambia show that stigma is embedded among majority of people who believe that sharing plates, cooking utensils or sleeping on the same bed with an HIV infected person can transmit the disease. HIV&AIDS related stigma impedes VCT, treatment, care and support for PLWHA. Fear of sigma also results in unwillingness of people to declare their HIV status even to their spouses which compounds the problem of new infections among couples (ICRW 2006). Countering stigma and discrimination will therefore be decisive for an effective response to HIV/AIDS on the continent.

#### 2.8.6 Little Adherence to Treatment

According to ECA (2010) adherence to treatment by PLWHA is becoming a major challenge in Mozambique. This is because pilot projects are requesting the patients to meet some criteria before being accepted for ARV treatment. One of these criteria is to have a family member or friend who will provide support to the patient by accompanying him or her to the health unit. The home based care program ideally should have provided this kind of support. However, the home-based care program is still limited to a few geographic areas. Without home based care, tracking the progress of patients could be a serious problem. If the antiretroviral treatment is interrupted, resistance to the drugs can be developed. For this reason, some ART projects, with the support of international NGOs, use

mechanisms that include paying volunteers accompanying PLWHA and monitoring their intake of the drugs (ECA 2010)

## **2.9 Theoretical Underpinnings**

This research has its underpinning mainly from two social psychological models also used for health communication and promotion programmes. These are The Health Belief Model (HBM) and the Cognitive Dissonance theories.

The HBM was developed with the purpose of predicting the individual response to, and the utilization of screening and other preventive health services (Becker, 1974 cited in Airhihenbua, 2000). The HBM asserts that the response and utilization of disease prevention programmes would be predicated on an individual's perceived seriousness of the disease, the perceived benefits of services, and barriers to accessing those services (Becker, 1974 cited in Airhihenbuwa 2000). This theory is relevant to the subject matter of the study for at least two reasons. First, the theory reinforces the fact that even though HIV&AIDS is ravaging the world especially Africa, many still consider it as a myth. Secondly, many people do not perceive the benefits of HIV&AIDS services and programmes such as education, CT, and treatment. Thirdly, those who see the need to access these services may be hindered by economic and geographical barriers.

According to Wessner (2007), Elliot Aronson was the major contributor to the field of cognitive dissonance. The assertion of the theory is that dissonance arises when a person possesses two contradictory beliefs, or when a person's behavior and attitude conflicts with an action that they profess. This clash eventually results in feelings of discomfort, and subsequently the conflicted individual strives to alter either their beliefs or behavior to reduce this tension. Hypocrisy is considered a special type of cognitive dissonance, produced when a person decides to promote a behavior that in actuality, they do not practice. Aronson's study with college students who were HIV&AIDS educators indicated that most of them were quite willing to take on this role, believing it was a good idea to encourage sexually active people to use protection. But hypocritically, they had themselves failed to practice same. In order to remove this dissonance, the subjects had to change their attitude to bring it in line with the position they were advocating. Essentially, they had to start practicing the use of condom.



Although almost everybody today would agree that AIDS is a huge danger and using condoms is important, the reality is very few of these people actually use condoms themselves. The same may be said of HIV CT or efforts towards stigma reduction. The relevance of the cognitive dissonance theory to HIV&AIDS prevention and management programmes is simple. Society attempts to insulate themselves from a state of dissonance through denial, so in order to cut through this denial, we must directly confront people with their own hypocrisy. Through HIV prevention programmes (especially sexual prevention programmes), people may be made to realize their past failures and strive to regularly practice safer sex. People need to realize that AIDS is not just a problem for other people, but they themselves are at risk as well.

### **2.10 Summary and useful lessons from literature**

The literature has reviewed the main HIV transmission mechanisms and the various methods and programmes for prevention and management of the pandemic. A review of the transmission mechanisms of the virus show that unprotected sexual intercourse is the main mode of transmission in sub Saharan Africa and for that matter Ghana. The ABC which has been used widely in countries such as Uganda and Ghana as a main method or programme for prevention has been discussed. One of the lessons learned here is that there is no single preventive method that must be recommended since people have different characteristics and behaviours.

The chapter also reviewed the knowledge and attitudes of people with regards to HIV&AIDS. The literature reveals that knowledge of sexual transmission of HIV is high in Ghana. But it also reveals some misconceptions about the disease as well as inadequate knowledge about other modes of transmission. Additionally, the literature showed that knowledge is not equated to behavior change. Even though there is reported high knowledge of the use of condom as a means of preventing HIV, the use is low. On the other hand, a changed attitude implies high knowledge as the literature showed that people who have yielded to VCT also had higher knowledge about the ABC of HIV prevention.

VCT was reviewed in the chapter as the interface of prevention and management of HIV&AIDS. The importance of VCT to HIV&AIDS prevention and management was highlighted. The various CT models were also discussed with emphasis on the strengths and weaknesses of each model reflecting factors such as access and confidentiality. The lesson



that may be useful from the review of the various models of VCT is that patronage of VCT services could depend on which model is available and which group of people it is intended to serve.

The chapter also reviewed HIV&AIDS management, a multi-step purpose involving medical and psychosocial services for PLWHA and in some cases their family members and their relatives. Antiretroviral Therapy or the administration of antiretroviral drugs to PLWHA is not only known to have prolonged the lives of the beneficiaries but has also improved the quality of life of the people. But it was also realized from the literature review that a comprehensive package of maintenance including ART, treatment for opportunistic infections, psychosocial and nutritional support can be expensive. The importance of good nutrition for PLWHA especially as a complement for effective ART was discussed.

Stigma has been also been discussed quite extensively in the chapter. Stigma is at all levels of the society has been identified as a factor that impedes both prevention and management of HIV&AIDS. Stigma does not only prevent people from knowing their HIV status through VCT and to seek the appropriate services, it also a possible cause of willful infection. Stigma reduction must therefore be a very important component of HIV&AIDS prevention and management programmes.

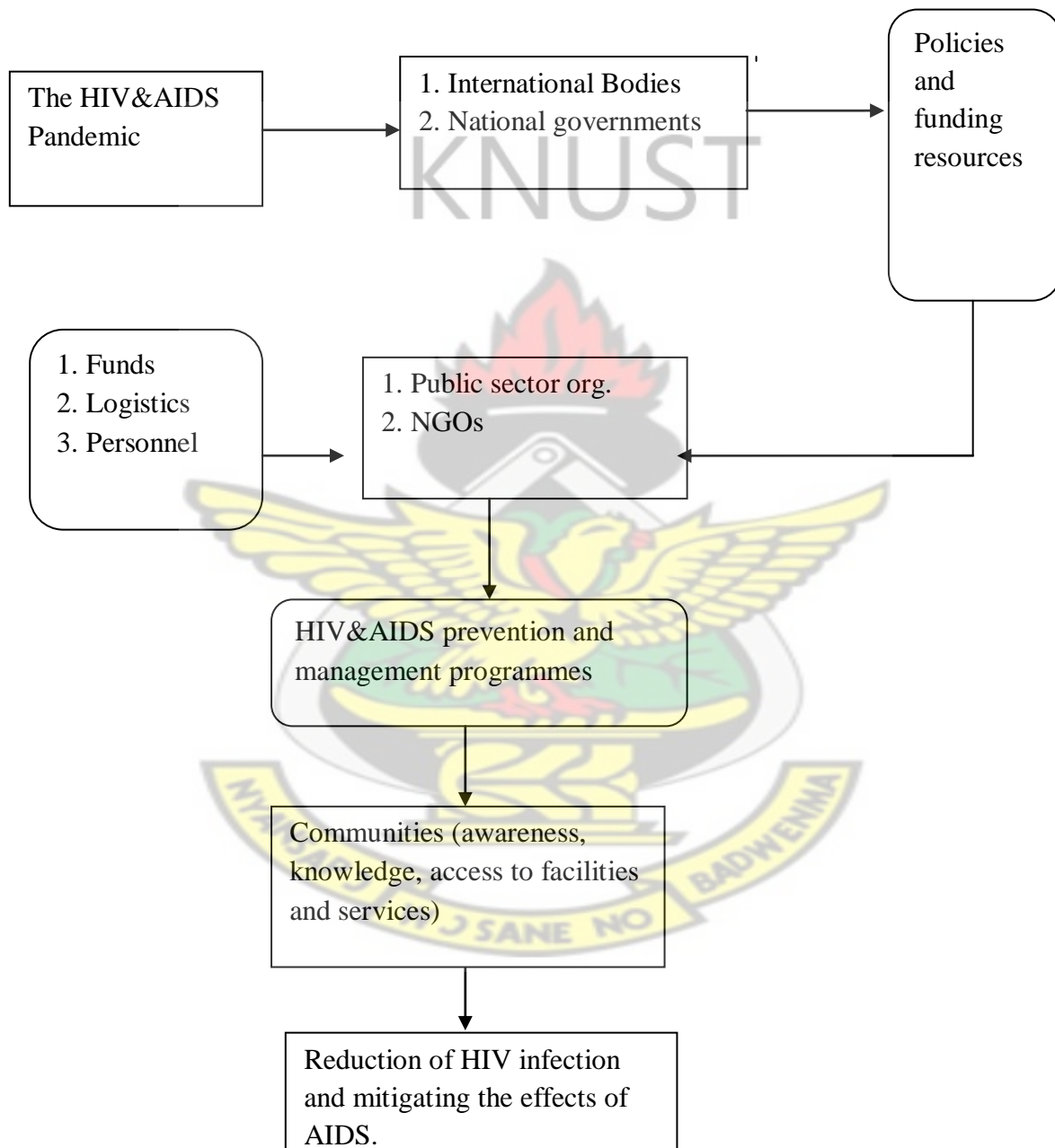
The literature also reviewed some challenges of HIV&AIDS prevention and management programmes and these included sustainable funding challenges, inadequate health personnel, logistics and facilities; the challenge of PLWHA adhering to nutritional treatment regimens, and the problem of HIV&AIDS related stigmatization and discrimination.

The theoretical underpinnings of the study have been traced to the Health Belief Model and the cognitive dissonance theory. These social psychological theories were considered relevant in view of the fact that behavior change is a major component of HIV&AIDS prevention and management.

### 2.11 Conceptual framework

According to Wikipedia (2010) a conceptual framework of a research is used to outline possible courses of action and to present a preferred approach to an idea. The imaginative construct or conceptual framework of this study is represented in the figure below:

**Figure 2.1 Conceptual Framework**



**Author's Own Construct, 2010**

HIV&AIDS as a development issue has attracted the concern and attention of International bodies and National governments. For example, the United Nations General Assembly's

Special Session on HIV&AIDS has mandated all nations to achieve universal access to treatment for PLWHA by the year 2010.

As shown by the conceptual framework above, policy guidelines and financial resources are provided by International organizations and National governments to effectively respond to the pandemic. These financial resources disbursed to public sector organisations and NGOs must help provide facilities, logistics, personnel, and expertise to enable them carry out effective HIV&AIDS prevention and management programmes. The ultimate beneficiaries of these programmes are community members and the end result or goal is increased knowledge and access to facilities and services to reduce the negative impact of the disease on the people.



## CHAPTER THREE

### RESEARCH METHODOLOGY AND PROFILE OF THE STUDY AREA

#### 3.1 Introduction

This chapter dwells on the methodology used by the researcher in the study. It emphasizes the research design, the sampling techniques and sample size determination, the methods of data collection as well as data analysis. The chapter also focuses on the main variables for the study as well as the profile of the study area.

#### 3.2 Research Design

The research approach employed was a case study. A case study design is very useful in investigating a contemporary phenomenon whose source of the study is based on a real life situation (Frankfort-Nachmias and Nachmias, 1996). The case study approach employed both qualitative and quantitative data to assess HIV&AIDS prevention and management programmes in the study area.

#### 3.3 Sampling Techniques

Due to time and resource constraints, it is often not expedient and practicable to collect data from a whole unit of research. However, inferences can be drawn on the whole unit based on a fraction of the whole if it is a fair representation of the larger unit (Bailey, 1982).

In view of the above, the researcher first selected the Northern region of Ghana as the study region. The region was purposively selected not because it has the highest HIV prevalence rate in Ghana but because of the great potential threat of the disease in the region. According to the Ghana Health Service (2007), the region had the highest percentage increase in prevalence rate in 2007 having increased from 1.3 per cent in 2006 to 1.9 per cent in 2007 representing about 46 per cent increase.

From the region, the researcher selected the Tamale Metropolitan and Yendi Municipal Assemblies because these were the first districts to start HIV&AIDS programmes such as VCT, PMTCT and ART. Furthermore, three localities from the Tamale Metropolis and two localities from the Yendi Municipal Assembly were purposively selected based on

recommendation by the directorates of the two districts because of the reportedly high numbers of HIV positive cases from these localities. The two selected localities in the Yendi Municipal Assembly were Yendi and Sang which account for about 65 percent of all positive HIV&AIDS cases recorded at the Yendi hospital. In the Tamale Metropolis, the three localities selected for the study for a similar reason were; Nyohini, Manayili Ridge, and Zogbeli/ Lamashegu.

### 3.3.1 Sample Frame and Sample Population

Kumar (1999) defines a sample as a subgroup of the population which is an ideal representation of the entire population. A population is the entire set of relevant units that a researcher has interest in generalising (Frankfort-Nachmias and Nachmias, 1996). A sample frame is the list of all sample units in the population area.

In this study, the list of individual households within the selected localities in the Tamale Metropolitan Area and the Yendi Municipal Area formed the sample frames. According to the GSS (2005), the total number of households in the Tamale Metropolitan Assembly was 45,288. But the total number of households in the three selected localities in the metropolis was 11,762. In the case of the Yendi Municipal Assembly, the total number of households was 15,698. However, the total number of households in the two selected localities was 5,599.

### 3.3.2 Sample size Determination

Two samples were determined, one for each of the two districts, Tamale Metropolitan Assembly and Yendi Municipality. The mathematical formula used in the determination of the sample size is as follows:

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

Where;

$n$  = sample size

$N$  = sample population

$\alpha$  = error margin of 10%

The sample size ( $n$ ) for the selected localities within the Tamale Metropolitan Assembly with total households of 11, 762 was calculated as follows:

$$n = \frac{11,762}{1 + 11,762(0.1)^2}$$



$$n = \frac{11,762}{1 + 11,762 (0.01)}$$

$$n = 100$$

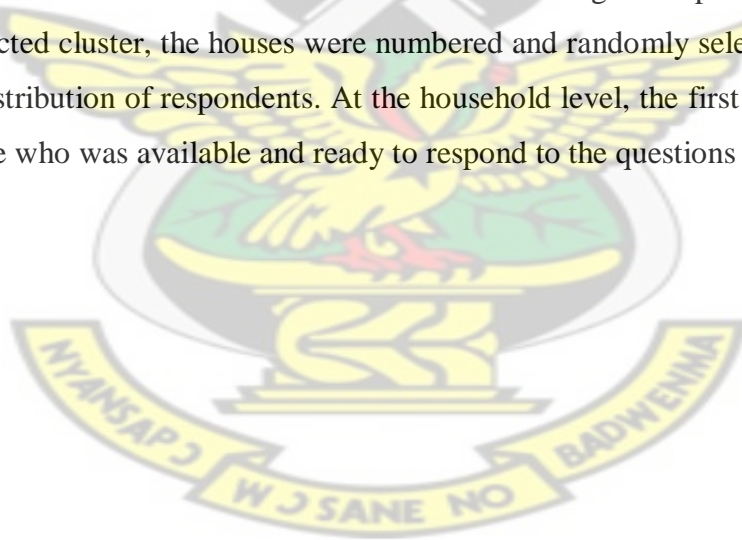
Similarly, the sample size for the Yendi Municipality was calculated as follows:

$$n = \frac{5,599}{1 + 5,599 (0.1^2)}$$

$$n = 1 + 5,599 (0.01)$$

$$n = 101$$

To be able to determine the number of respondents in each of the five localities for Tamale Metropolis and the Yendi Municipality, a proportional stratification was used. The proportional stratification provides for an equitable distribution of household respondents for the selected communities. Table 3.2 shows the proportional distribution of respondents in the various localities considering the total households of each of them. The households in the selected localities were clustered using road demarcations. Each locality was divided into 5 clusters of households and one cluster selected using a simple random sampling. From each selected cluster, the houses were numbered and randomly selected according the proportional distribution of respondents. At the household level, the first male or female 15 years and above who was available and ready to respond to the questions was engaged in the exercise.



**Table 3.1:Proportional Stratification of respondents in selected localities of the Tamale Metropolitan Assembly and the Yendi Municipal Assembly.**

<b>Name of locality in the Tamale Metropolitan Assembly</b>	<b>Total number of households</b>	<b>Proportional distribution of respondents</b>
Nyohini	2,882	25
Manayili/ Ridge	3,874	33
Zogbili/ Lamashegu	5,006	42
<b>Total households</b>	<b>11,762</b>	<b>100</b>
NGOs	7	5
Hospitals	1	1
<b>Total respondents</b>		<b>106</b>
<b>Name of locality in the Yendi Municipal Assembly.</b>	<b>Total number of households</b>	<b>Proportional distribution of respondents</b>
Yendi	5,085	92
Sang	514	9
Total households	5599	101
Hospitals	1	1
NGOs	2	1
<b>Total respondents</b>		<b>103</b>

*Source: Excerpts from GSS (2005) and calculation by author*

The total number of respondents for both the Tamale Metropolitan Assembly and the Yendi Municipal Assembly thus came to 209. These comprised 201 household respondents, six NGOs and two hospitals. In the Tamale metropolis Five NGOs were selected randomly out of a list of seven provided by the Northern regional Network of NGOs. For the Yendi Municipality, two NGOS which were considered as active in the area of HIV&AIDS programmes were both considered even though one failed to respond.

Two hospitals (Tamale hospital and Yendi district hospital) which are also the two main hospitals in the study area where VCT, ART and PMTCT services are provided in the districts were also selected purposively for the study.

The list of selected NGOs is as follows:

**Table 3.2 List of selected NGOs in Tamale and Yendi**

<b>Name of NGO</b>	<b>Location</b>
Darwah Academy	Tamale
Girls Growth and Development ( GIGDEV)	Tamale
Enterprising Women in Development (EWID)	Tamale
Social Change Advisory Network	Tamale
E.P. Dev.and Relief Agency (EPDRA)	Yendi
Social Change Advisory Network	Tamale

**Source: Northern Region Network of NGOs, 2010**

### **3.4 Methods of data collection and sources of data**

The research used both primary and secondary data. The main tool for the collection of data was questionnaire and three sets of semi structured questionnaires were used. The first set of questionnaires solicited responses from the males and females aged 15 years and above. The second set of questionnaires solicited responses from selected NGOs implementing HIV&AIDS programmes in the study area. The questionnaires designed for the health institutions elicited information on VCT, ART, and other forms of HIV&AIDS prevention and management programmes. The researcher also spoke to key people such as the HIV&AIDS coordinators of the two hospitals and the Development planning officers of the two district assemblies as part of the data collection process. Secondary data based on existing literature and records especially from the health institutions and the District Assemblies were also collected and these covered areas such as VCT and PMTCT patronage, ART, and food support to PLWHA. The researcher also made use of observation where appropriate and feasible.

### **3.5 Main variables of the study**

According to Nachmias and Nachmias (1996), a variable in a research process is an empirical property that can take on two or more values, either quantitatively or qualitatively. In this particular study, the variables are largely qualitative reflecting the descriptive nature of the research topic. The main ones are presented in the table below.

**Table 3.3 Main variables of the study.**

Variable	Conceptual definition	Indicator
Awareness	Ever heard of HIV&AIDS, HIV&AIDS facilities and services.	Percentage of respondents who have heard of HIV&AIDS, HIV&AIDS facilities and services.
Knowledge	Respondents know the right modes of HIV&AIDS transmission, prevention, and means of treatment.	Percentage of respondents with full knowledge of modes of HIV&AIDS transmission, prevention and treatment.
Accessibility ( physical)	Being able to reach out to HIV facilities and services physical or geographical limitation	Percentage of respondents who recognize distance as a barrier for accessing VCT and other services.
Accessibility ( financial)	Being able to make use of HIV&AIDS facilities and services without financial hindrances.	Percentage of respondents who think cost is barrier to accessing services
Cost	Amount paid for the use of HIV services and facilities	Affordable or not affordable.
Confidentiality	The assurance to clients that their HIV serostatus will not be disclosed to other people Without their consent	Percentage of respondents who think lack of confidentiality on the part of Health staff is a hindrance for accessing services.
Stigma and discrimination	The tendency to differentiate and treat PLWHA unfavorably due to their HIV&AIDS status.	Percentage of respondents with stigma and discriminative tendencies

Source: Author;ss own construct July, 2010.

### **3.6 Method of Data Analysis**

The research process employed both quantitative and qualitative data. The analysis of the quantitative data was done in two ways; first, the data was rationalized into meaningful statistical data to ease the analysis. Inferences were drawn from the statistical data to compile the report. The qualitative data supplemented the quantitative data and helped present the situation more in a descriptive way

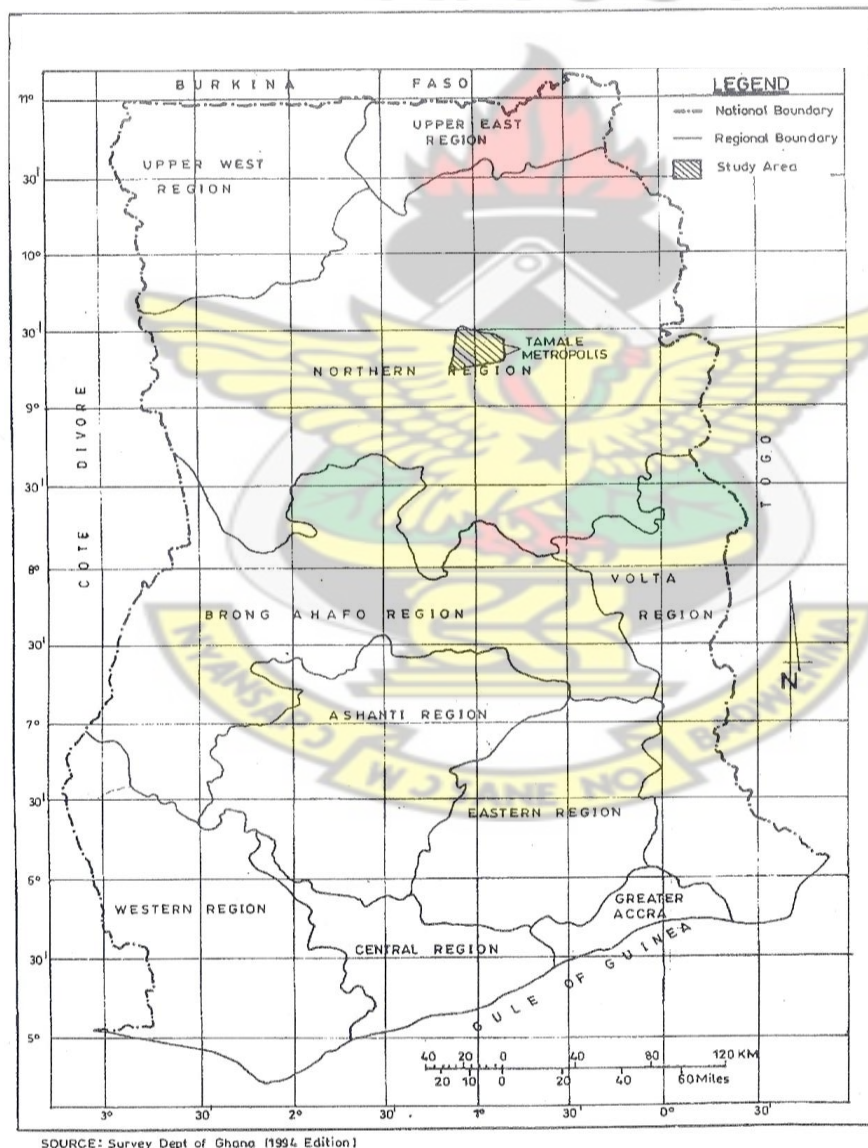
### 3.7 Units of Analysis

The Units of Analysis included the following

- Males and females 15 years and above
- NGOs
- Health Institutions ( hospitals)
- District Assemblies

### 3.8 Profile of study Area

The profile covered the Tamale Metropolitan Assembly and the Yendi Municipal Assembly, the two districts selected in the region for the study.



**Figure 3.1**map of Tamale Metropolitan Assembly in the national context



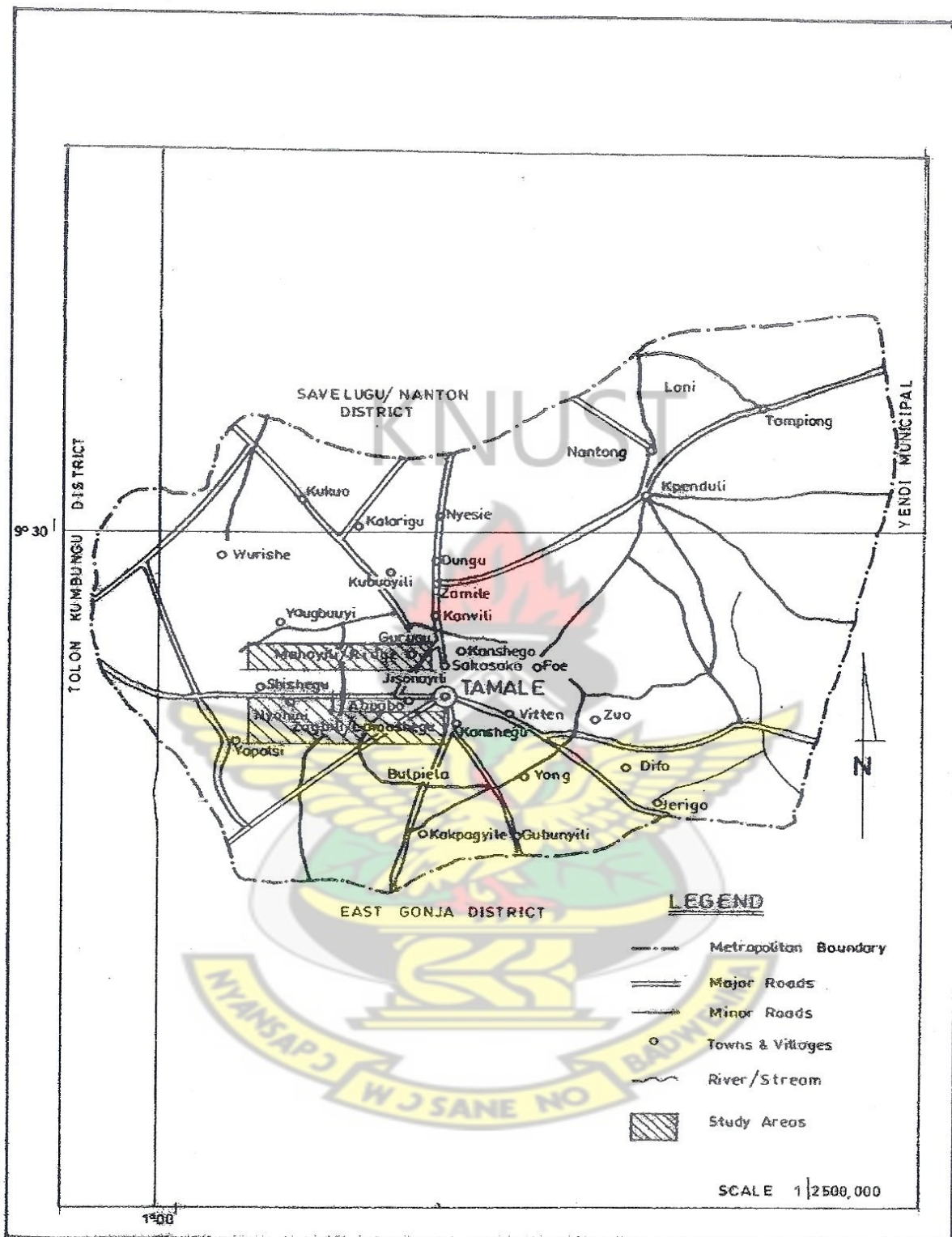


Fig 3.2 Map of Tamale Metropolitan Assembly showing study Areas

### **3.8.1 Profile of Tamale Metropolitan Assembly**

The Tamale Metropolitan Assembly is located at the centre of the Northern Region. It shares common boundaries with Savelugu/Nanton District to the north, Tolon/Kumbungu District to the west, Central Gonja District to the south-west, East Gonja District to the south and Yendi District to the east.

The Tamale Metro occupies approximately 750 sq km . which is 13 percent of the total area of the Northern Region.

#### **Demographic Characteristics**

The 2000 Population Census gave the population of the Tamale Metropolis as 293,881. This is made up of 146,979 males and 146,902 females. This figure shows an increase of 75 percent over the 1984 population of 167,778 and represents an intercensal growth rate of 3.5 percent. This is far higher than the national and regional rates of 2.7 percent and 2.8 percent respectively.

With an urban population of 67.1 percent, the Metropolis is the only district in the region which is predominantly urban. The population density of 318.6 persons per square kilometer for the Metropolis is about 12 times higher than the Regional average density of 25.9 persons per square kilometer. There exists vast difference between the densities of the urban and rural areas. This is an indication of influx of people to urban Tamale, and gives credence to the assertion that facilities and opportunities for modern employment are concentrated in few central places.

The structure of the population of the metropolis indicates a broad base that gradually tapers off with increasing age due to death. The youthfulness of the population implies that the metropolis has an important human resource potential and that this tremendous potential will determine the strength and resilience of the metropolis in pursuing social, economic and political development goals.

On the other hand, the proportion of people aged sixty years and above is about 4.1 percent lower than the regional and national averages of 4.5 percent and 5.3 percent respectively, an indication of a comparably low life expectancy.

## Religion

Islam is the predominant religion in the Metropolis with 84 percent of the population affiliated to it. Christians follow follow with a proportion of 13.7 percent while the traditionalists constitute 1.6 percent of the population. All other religious denominations constitute 0.7 percent of the population in the Metropolis.. Table 3.5 below summarizes the religious characteristics of the people in the metropolis.

**Table 3.4: Religious affiliation of people of the Tamale Metropolis (percentages)**

Type of Religion	Percentage of population
Islam	84.0
Christian	13.7
Traditional	1.6
Other	0.7

**Source: GSS (2005)**

## Educational Infrastructure

According to ghanadistricts (2010), there are 240 nursery, 274 primary, 89 Junior High, and 11 Senior High schools in the Tamale metropolis. In addition to these, there are two vocational and Technical schools, one polytechnique and one campus of the University for Development Studies. The total primary school enrolment in 2005/2006 was 53,889 comprising 29,303 males and 24,586 females. The pupil- teacher ratio was 1:33 for the primary and 1:21 for the Junior High schools.

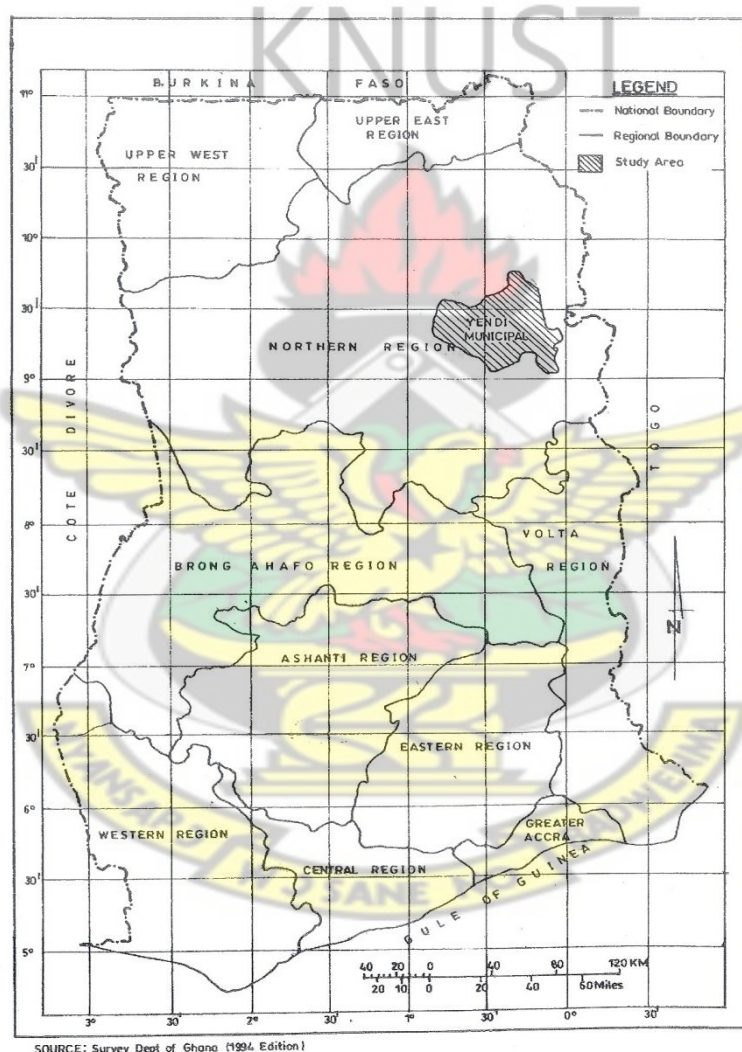
## Health services and facilities

The Tamale Regional Hospital and the West End Hospitals are the main health institutions in the Tamale metropolis. But there are several health centres and clinics in the metropolis. According to ghanadistricts (2010), the staff strength of the health sector in the Metropolis is 54.

The high level of illiteracy and poverty as well as limited access to safe drinking water and poor Sanitation have combined to expose many people to health hazards which accounts for the low standard of living of the people (ghanadistricts, 2010)

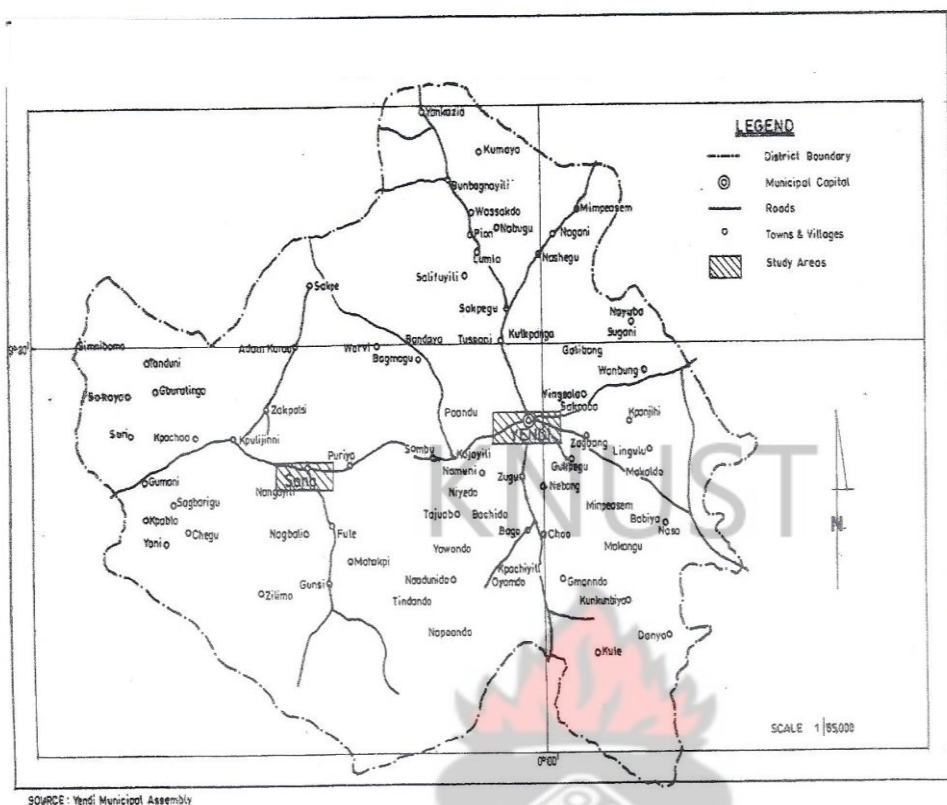
Malaria and diarrhoea are among the top five diseases in the metropolis and these have severe effect on the lives of the people. Malaria alone contributes about 25 percent of total

deaths in the metropolis grand districts, 2010. The Tamale Metropolis is as vulnerable to the HIV/AIDS pandemic as other districts in the country. High poverty rate which compels people especially women to engage in unsafe sex practices is a predisposing factor to the spread of the disease in the metropolis. Also, the long dry season when traditional farming is at its lowest ebb also encourages a greater proportion of the youth, particularly young women, to move down south in search of non- existing jobs. Most of the young women who come to the cities become head porters or ‘kayaye,’ which is another predisposing factor to the spread of the pandemic.



**FIG 3.3 Map of Yendi Municipality in the National context**





**Fig 3.4 Map of Yendi Municipality showing study areas**

### 3.8.2 Profile of the Yendi Municipality

The Yendi Municipal Assembly is located in the eastern corridor of the Northern Region of the Republic of Ghana. The Greenwich Meridian passes through a number of settlements in the district including Yendi, Bago, Laatam, Lumpua, Gbetobu, Gbungbaliga and Nakpachei (ghanadistricts, 2010)

The Municipality shares boundaries with seven districts:- To the east – Saboba/Chereponi and Zabzugu/Tatale To the south – Nanumba and East Gonja To the west – Tamale Municipality and Savelugu/Nanton To the North – Gushegu/Karaga The municipality ranks sixth (6th) in the Region in terms of surface area with a landmass of 5,350 sq km.

#### Demographic characteristics

The population of the Yendi municipality is 142,504 (2000 population and Housing census) and is varied in terms of ethnicity with the Dagomba constituting the majority. The other ethnic groups include Konkomba, Akan, Ewe, Basare, Moshie, Chokosi and Hausa



(ghanadistricts, 2010) The population is predominantly rural. About 62 per cent live in the rural areas while 37.4 per cent are in towns. The main religious groupings are Moslems, Christians and Traditionalist. Migration is a common feature among the youth and especially female girls who basically travel down south to engage in potorage work. Thus like in the case of the Tamale metropolis, this is a predisposing factor to HIV infection.

#### Reigious Characteristics

As in the Tamale Metropolis, Islam is the most dominant religion in the Yendi Municipality accounting for 64.1 percent of the population. The tradionalists are the second largest religious denomination constituting 18.7 percent of the population. Christians come third with 13.8 percent while other religious denominatios put together constitute 3.4 percent. Table 3. 6 Below summarizes the religious characteristics of the people in the Municipality.

**Table 3.5: Religious affiliation of people of the Yendi Municipality (percentages)**

Type of Religion	Percentage of population
Islam	64.1
Christian	13.8
Traditional	18.7
Other	3.4

**Source: GSS (2005)**

#### Economic Characteristics

The economy of the area is largely subsistent with agriculture being the main occupation. Over 80 per cent of the people depend on Agriculture for their livelihood (ghanadistricts, 2010). Out of the total land area of 535,000 hectares, arable land constitutes 481,000 hectares out of which only 15 per cent is under cultivation. The land is suitable for the cultivation of cereals, tubers and rearing of animals such as cattle, sheep and goats. A section of the population is also engaged in small scale manufacturing business which includes smock weavers, blacksmiths, bakers, mechanics, shea butter extraction and groundnut oil extraction (ghanadistricts, 2010).

## Health Facilities and services

The district has a government hospital located on Yendi and five (5) health centres located at Bunbonayili, Gnani, Adibo, Sang and Jimle. The District has three (3) other Community Health and Planning Services (CHPS) at Sunson, Dabogni and Kuni.

Malaria and anaemia constitute the two main causes of admissions at the hospital in the last five years. Other major diseases include pneumonia, diarrhoea, respiratory tract infections (RTI), and pregnancy related complications.

Table 3.8 presents the top ten causes of admissions to the Yendi hospital from 2005 -2010



**Table 3.6 Top ten Causes of Admissions at the Yendi Hospital 2005 - 2011**

2005		2006		2007		2008		2009		2010	
Disease	Percent	Disease	percent	Disease	percent	Disease	percent	Disease	percent	Disease	Percent
Malaria	54	Malaria	66	Malaria	67	Malaria	57.2	Malaria	56	Malaria	56.6
Diarrhoea	9.0	Anaemia	8.0	Anaemia	7.0	Anaemia	8.9	Anaemia	7.8	Anaemia	8.4
Anaemia	8.0	Pneumonia	7.0	Pneumonia	6.0	Pregnancy. Related diseases	3.7	Typhoid Fever	6.0	RTI	6.0
RTI	7.0	Diarrhoea	5.0	RTI	4.0	Pneumonia	3.4	Pregnancy related complications	4.0	Typhoid Fever	5.0
Pneumonia	6.0	Pregnancy Related Diseases	4.0	Diarrhoea	3.4	Diarrhoea	3.1	RTI	3.9	Diarrhoea	3.0
Typhoid Fever	4.0	Hernia	3.0	Malaria in pregnancy	3.0	Malaria in pregnancy	2.6	Malaria in pregnancy	2.0	Pneumonia	2.0
Hernia	3.0	RTI	2.0	Pregnancy Disease	2.0	RTI	2.4	Diarrhoea	1.7	Dysentery	1.7
Pregnancy Related Disease	2.0	Typhoid Fever	2.0	Hernia	2.0	Typhoid Fever	2.4	Pneumonia		Pregnancy related Diseases	1.2
Snake bites	2.0	Hypertension	2.0	Snake bite	1.0	-	-	-	-	-	-
Road Traffic accidents	1.4	Snake bites	2.0	Others	4.0	-	-	-	-	-	-

**Source: Statistical Department of Yendi hospital (2010)**

## **CHAPTER FOUR**

### **AN ASSESSMENT OF HIV/AIDS PREVENTION AND MANAGEMENT PROGRAMMES IN TAMALE AND YENDI**

#### **4.1 Introduction**

This chapter is primarily devoted to the analysis of both primary data obtained from the field survey and also secondary data from governmental and nongovernmental institutions in the Tamale Metropolis and the Yendi Municipality. The first part deals with the main types of HIV&AIDS prevention and management programmes implemented by NGOs, the two selected hospitals, and other institutions in the Tamale metropolis and the Yendi municipality. The demographic characteristics of respondents of the field survey which include the age, sex, occupation, marital status, and level of formal education have also been analysed to facilitate the discussions. But perhaps of greater significance, is the analysis of data from respondents of the field survey that address specific objectives set in the study.

#### **4.2 Types of HIV&AIDS prevention and Management Programmes in the Tamale metropolis and the Yendi municipality**

Information on the main HIV&AIDS prevention and management programmes in the Tamale metropolis and the Yendi municipality was obtained from the field survey as well as records of the organisations involved in the study. Responses to questionnaires by selected NGOs in the Tamale metropolis and the Yendi municipality indicated that awareness creation and education on HIV prevention formed about 80 percent of their HIV&AIDS programmes. All seven NGOs which responded to the questionnaire indicated that they were involved in some form of Information, Education & Communication (IE&C) on HIV&AIDS prevention including the ABC method. These were done through peer interaction, community durbars, radio programmes and others. Darwah Academy and EPDRA in Tamale and Yendi respectively indicated that they offer food support to PLWHA in addition to information education, and communication (IE&C). NGOs indicated they give food support to PLWHA through the health institutions where the PLWHA are counselled. One NGO (SCAN) indicated they directly counselled people and referred them for HIV testing. Counselling and testing for HIV, PMTCT, ART, nutritional counselling for PLWHA, and treatment of opportunistic infections such as tuberculosis, pneumonia, and diarrhoea were the main HIV&AIDS programmes in the two main hospitals in Tamale and Yendi. From the one

percent District Assembly Common Fund (DACF) allocated for HIV&AIDS programmes, the Tamale metropolitan and Yendi municipal assemblies supported the PLWHA with food and money to access ART. But this was not done on a regular basis and the reason was that the DACF was not released on schedule. The two District Assemblies also provided coordination and monitoring to the HIV&AIDS activities of the NGOs. Table 4.1 summarises the main HIV&AIDS interventions of the selected organisations in Tamale and Yendi.

**Table 4.1 Main HIV&AIDS prevention and management programmes of NGOs and other organisations in the Tamale metropolis and Yendi municipality.**

Name of Organisation	Location	Main HIV&AIDS programmes/ activities
Darwah Academy	Tamale	Education on HIV prevention, food support to PLWHA
Girls Growth and Development ( GIGDEV)	Tamale	Education on HIV prevention
Enterprising Women In Development ( EWID)	Tamale	Education on HIV prevention
Social Change Advisory Network (SCAN)	Tamale	Education on ABC of HIV prevention, counselling for HIV testing
E.P. Development and Rural Agency (EPDRA)	Yendi	Education on HIV prevention, food support to PLWHA
Tamale Teaching Hospital	Tamale	Education on HIV prevention, Counselling and testing including PMTCT, ART, treatment of opportunistic infections
Yendi Hospital	Yendi	Education on HIV prevention, Counselling and testing including PMTCT, ART, treatment of opportunistic infections
Tamale Metropolitan Assembly	Tamale	Monitoring NGOs, financial support for drugs and food for PLWHA
Yendi Municipal Assembly	Yendi	Monitoring NGOs, financial support for drugs and food for PLWHA

**Source: Author's field survey, July, 2010**

### **4.3 Demographic Characteristics of Respondents of field survey**

The demographic characteristics of respondents provide the profile of respondents in the sampled communities which would help readers to appreciate the ensuing discussions.



**Table 4.2 Age-Sex Distribution of Respondents**

Age	Tamale Metro				Yendi Municipal			
	Sex		Percentage		Sex		Percentage	
	Male	Female	Male	Female	Male	Female	Male	Female
15-24	22	25	38.6	58.1	29	18	54.7	37.5
25-34	12	15	21.1	34.9	17	19	32.1	39.6
35-44	14	2	24.5	4.7	4	8	7.5	16.6
45-54	8	1	14.0	2.3	2	2	3.8	4.2
55-59	1	0	1.8	0	1	1	1.9	2.1
Total	57	43	100	100	53	48	100	100

**Source: Author's field survey, July, 2010**

Table 4.2 shows the age-sex distribution of respondents in the two districts. In the Tamale metropolis, total number of male respondents was 57 while the females were 43. In the Yendi Municipality, a total of 53 respondents were males while 48 were females. In both districts the male respondents were dominant because the females were less willing to be interviewed than their male counterparts which is much characteristic of Muslim dominated areas.

The dominant age group for both males and females in the two districts was 15-24 years. In the Tamale metropolis, 38.6 percent of male respondents belonged to this age group while the females in that age group formed 58.1 percent. The field experience showed that this age group was more readily available at the households and more enthusiastic in responding to HIV&AIDS issues than their older counterparts.

**Table 4.3 Occupational Distribution of Respondents**

Occupation	Tamale Metropolis		Yendi Municipality	
	Total	Percent	Total	Percent
Salaried Worker	17	17.0	14	13.9
Trader	19	19.0	22	21.8
Artisan/Self employed	10	10.0	18	17.8
Apprentice	4	4.0	3	3.0
Unemployed	44	44.0	37	36.6
Farmer	2	2.0	6	5.9
Others	4	4.0	1	1.0
Total	100	100	101	100

**Source: Field Survey July, 2010**

As can be observed from Table 4.3, salaried workers constituted 17.0 percent of the respondents in the Tamale Metropolis and 13.9 percent in the Yendi Municipality. Traders constituted 19.0 percent and 21.8 percent for Tamale and Yendi respectively while artisans and the self employed constituted 10.0 percent and 17.8 percent respectively for the two districts. The unemployed seem dominated accounting for 44.0 percent in Tamale and 36.6 percent in the Yendi. The GSS (2005) describes the Tamale Municipality as having the lowest level of employment of 52.6 percent of its economically active population. However the seeming dominance of the unemployed among the respondents could be explained by two factors. First, the youthful age group of 15-24 years which dominated the respondents representing over 46.0 percent for both Tamale and Yendi had a substantial number in school and therefore not economically active. The second factor that could explain the above situation is the notion held by many people that one is not employed unless one has his or her name on the pay roll of an organization. As a result, a number of people answered as 'unemployed' while in actual fact, they may be engaged in some form of employment.

**Table 4.4 Marital Status of Respondents**

Marital Status	Tamale Metropolis		Yendi Municipality	
	Total	Percent	Total	Percent
Married	49	49.0	42	41.6
Single	27	27.0	38	37.6
Divorced/Separated	1	1.0	2	2.0
Cohabiting	23	23.0	18	17.8
Widow/widower	0	0	1	1
Total	100	100.0	101	100.0

**Source: Field Survey, July 2010**

Table 4.4 shows the marital status of respondents in the two districts of study. Married people dominated the respondents accounting for 49.0 percent in the Tamale Metropolis and 41.6 percent in the Yendi Municipality. This high percentage of married people marched with low level of employment could be an indication that many people do not consider the acquisition of job as a prerequisite for marriage. Those who were single constituted 27.0 percent and 37.6 percent for Tamale and Yendi respectively. The percentage of respondents in cohabitation was equally significant accounting for 23.0 percent in the Tamale Metropolis and 17.8 percent in Yendi. A cross tabulation of marital status and age in Table 4.5 shows that most of the respondents in the cohabitant relationship were in the age group of 15-24. The implication is that there is a lot of pre-marital sexual activity among the youth and this is important for planning for HIV&AIDS prevention and management programmes.

**Table 4.5 Marital Status and Age Distribution of Respondents**

<b>Tamale Metropolis</b>							
Marital Status	Age						
	15-24	25-34	35-44	45-54	54-59	Total	percent
Married	7	17	16	8	1	49	49.0
Single	21	6	0	0	0	27	27.0
Divorced/Seperated	0	0	0	1	0	1	1.0
Cohabiting	19	4	0	0	0	23	23.0
Widow/widower	0	0	0	0	0	0	0
Total	47	27	16	8	1	100	100.0
<b>Yendi Municipality</b>							
Marital Status	Age						
	15-24	25-34	35-44	45-54	54-59	Total	percent
Married	8	18	12	3	1	42	41.6
Single	26	12	0	0	0	38	37.6
Divorced/Seperated	0	1	0	0	1	2	2.0
Cohabiting	13	5	0	0	0	18	17.8
Widow/Widower	0	0	0	1	0	1	1.1
Total	47	36	12	4	2	101	100.0

**Source: Author's field Survey, July, 2010.**

**Table 4.6 Educational Status of Respondents**

Highest Educational Institution Attained	Tamale Metropolis		Yendi Municipality	
	Total	Percent	Total	Percent
None	17	17.0	25	24.8
Primary	11	11.0	5	4.9
Middle/JHS	24	24.0	26	25.7
SSS/Tec/Voc	26	26.0	3	32.7
Tertiary	22	22.0	12	11.9
Total	100	100.0	101	100.0

**Source: Author's field Survey, July, 2010**

With regards to the educational attainment of respondents, those with secondary school, Technical and Vocational qualifications dominated accounting for 26.0 percent of the respondents in the Tamale Metropolis and 32.7 percent for the Yendi Municipality. Those with the former middle school and JSS/JHS as their highest educational attainment had the second highest representation with 24.0 percent in Tamale and 25.7 percent in Yendi. Respondents who had tertiary education in Tamale accounted for 22.0 percent compared to 11.9 percent for Yendi. This may be explained by the fact that Tamale has two main tertiary institutions namely the University for Development Studies (UDS), and the Tamale Polytechnique.



**Table 4.7: Ethnic Distribution of Respondents**

Ethnic Group	Tamale Metropolis		Yendi Municipality	
	Total	Percent	Total	Percent
Dagomba	67	67.0	89	88.1
Kokomba	1	1.0	3	3.0
Gonja	9	9.0	2	2.0
Akan	5	5.0	1	1.0
Dagao	2	2.0	1	1.0
Gurunshie	2	2.0	1	1.0
Others	14	14.0	4	3.9
Total	100	100.0	101	100.0

**Source: Field Survey, July 2010**

Table 4.7 presents the ethnic distribution of respondents. Clearly, Dagombas were the dominant ethnic group among respondents for both Tamale Metropolis and the Yendi Municipality. This ethnic group constituted 67.0 percent in the Tamale Metropolis and 88.1 percent of respondents in Yendi. This is not surprising since the GSS (2005), reporting for the 2000 Population and Housing Census gave Dagombas 92.0 percent and 98.2 percent of the total populations of the Tamale Metropolis and the Yendi Municipality respectively. The second largest ethnic group in Tamale is the Gonjas and they represented 9.0 percent of the total respondents while the Konkombas, the second largest ethnic group in the Yendi Municipality accounted for 3.0 percent. All other ethnic apart from those listed in the table put together accounted for 14.0 percent and 4.0 percent for Tamale and Yendi respectively.

#### 4.4 Awareness, Knowledge and Behaviour related to HIV&AIDS Prevention and Management.

This part of the analysis addresses objective one of this study and largely concentrates on field data regarding respondents' awareness of HIV&AIDS, knowledge about HIV modes of infection and prevention, and knowledge about antiretroviral drugs.

**Table 4.8 Respondents' Awareness of HIV&AIDS.**

Awareness about HIV&AIDS	Tamale Metropolis n=100		Yendi Municipality n= 101	
	Yes	No	Yes	No
percentage	100	0	99.0	1.0

**Source: Field Survey, July 2010**

Table 4.8 is the result of the question to respondents as whether they have ever heard of HIV&AIDS. Hundred percent of respondents in the Tamale Metropolitan Assembly responded 'yes' meaning they are aware of or have ever heard of HIV&AIDS. In the Yendi Municipality, 99.0 of the respondents claimed awareness of the disease and only one percent of respondents had not heard of it.

**Table 4.9 Knowledge of HIV Modes of Transmission**

Mode of HIV transmission	Tamale Metropolis n= 100		Yendi Municipal n= 101	
	Yes (%)	No (%)	Yes (%)	No (%)
Through Sex	99.0	1.0	95.0	5.0
Blood Transfusion	44.0	56.0	38.6	61/0
During pregnancy and at birth	15.0	85.0	13.9	56.1
Breastfeeding	11.0	89.0	8.9	91.1
Unsterilized cutting instruments	88.0	12.0	78.2	21.1

**Source: Author's field Survey, July, 2010.**

Field assessment of respondents' knowledge on the modes of HIV infection was done by asking them to mention at most five ways by which the disease can be transmitted. The result is contained in Table 4.9 above. Ninety nine percent of respondents in the Tamale metropolis were able to mention 'sex with an HIV infected partner' as a major mode of transmission while 95.0 percent in Yendi were able to do same. Transfusion of HIV infected blood as a mode of infection was identified by 40.0 percent of respondents in the Tamale Metropolis while 38.6 percent did so in the Yendi Municipality. Infection from mother to child during pregnancy and at birth was identified by just 15.0 percent in the Tamale and 13.9 percent in Yendi. Similarly, breastfeeding from an infected mother as a means of infection was identified by 11.0 percent of respondents in Tamale and 8.9 in Yendi. Shared use of unsterilized cutting and piercing instruments such as razors, knives, and needles as means of HIV transmission was identified by 88.0 percent of respondents in the Tamale Metropolis and 78.2 percent in the Yendi Municipality. The implication of the above is that knowledge of sexual transmission of the disease is very high in both districts. Knowledge of use of contaminated cutting or piercing instruments as a mode of infection was also high while knowledge of transmission through infected blood ironically, was low. Knowledge of MTCT was also low.

**Table 4.10 Relationship between the Level of formal Education and knowledge of HIV transmission through Blood transfusion**

Spatial Unit	Level of Education										
	None		Primary		Mid/JHS		SSS/Tec/Voc		Tertiary		Total
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	
Tamale Metropolis	2	15	4	7	6	18	15	11	17	5	100
Yendi Municipality	3	22	1	4	10	16	17	16	8	4	101

**Source: Author's field Survey, July, 2010.**

The researcher did a cross tabulation of level of formal education of respondents and knowledge of HIV transmission especially transmission through infected blood as can be seen from Table 4.10 above. In the Tamale Metropolis, 15 out of 26 respondents or 57.0 percent who had secondary education knew that HIV can be transmitted through transfusion of infected blood. For those with tertiary education, 17 out of 22 respondents or 77.2 percent

knew transmission of infected blood as a mode of HIV transmission. In the Yendi Municipality, 16 out of 33 or 51.5 percent of respondents with secondary education were positive about HIV transmission through infected blood transfusion compared to about 66.7 percent knowledge among respondents with tertiary education. For those with no education, only two out of 17 or 11.8 percent identified transmission of infected blood as a mode of HIV infection. The implication is that increased knowledge of the modes HIV infection is associated with higher level of formal education. But since a greater part of the population in the study has little or no formal education, there is the need for more comprehensive strategies to adequately meet the knowledge needs of the people.

**Table 4.11 Knowledge of Antiretroviral Drugs.**

Question	Tamale Metropolis n= 100		Yendi Municipality n= 101	
	Yes (%)	No (%)	Yes (%)	No (%)
Aware of antiretroviral drugs?	70.0	30.0	48.5	51.5
Know where it can be accessed?	41.0	59.0	29.7	70.3

**Source: Author's field survey, July, 2010**

Respondents' knowledge on antiretroviral drugs was assessed with the help of two questions. The first question was whether respondents have heard of antiretroviral drugs and the second was whether they know where the drug can be accessed. The results are contained in Table 4.11 above. In the Tamale Metropolis, 70.0 percent of the respondents answered that they know of it. This comprised 41 males and 29 females while 30.0 percent said they were unaware of such a drug. In the Yendi Municipality, 48.5 percent of the respondents claimed awareness of the drug with 51.5 percent claiming the contrary. The administration of antiretroviral drug began much earlier in Tamale than Yendi and that may explain the relatively higher knowledge of the drugs in the metropolis.

With regards to respondents knowledge on where one can access the drug when one needs it, 41.0 percent in the Tamale metropolis knew where it could be accessed while 59.0 did not know where the drug can be obtained. All those who said they knew where the drug can be obtained mentioned the Tamale hospital. In the Yendi Municipality, only 30.0 percent of respondents knew where the drug can be accessed mentioning the Yendi hospital.

#### **4.5 Knowledge and use of condoms.**

Knowledge and use of condom is an important aspect of HIV prevention. The question whether condom is an effective means of HIV prevention was posed to respondents.

In the Tamale Metropolis, 63.0 percent of the respondents comprising 36 males and 27 females were of the view that condom was effective in preventing HIV and should be encouraged while 37.0 percent thought otherwise. Those who did not recognize the importance of condom as a preventive method felt that they either kept to their sexual partners or that condom was not good enough. The situation in the Yendi municipality was not very different as 67 respondents representing 66.3 percent of the respondents acceded to the use of condom as an effective means of HIV prevention while 23.7 percent did not recognize it.

The researcher was interested in the use of condoms by those with no regular sexual partners. But the question posed to respondents whether they had had a non regular sexual partner in the past 12 months did not elicit adequate responses from the subjects. In the Tamale Metropolis, only 13 percent of respondents had had one or more non regular partners within the past twelve months. Of the 13 percent who had non regular sexual partners within the past twelve months, seven used condom consistently each time they had sex, four used condom only 'sometimes' while two never used condom at all. Similarly, in the Yendi Municipality, only seven percent of respondents said they had one or more non regular sexual partners within the past twelve months. Of the seven percent, two reported consistent use of condom, three reported having used condom sometimes while two never used any condom during sexual intercourse with a non regular partner.

On the accessibility of condoms, the researcher found out that the main selling points were the chemical shops in the communities. The investigation revealed that condoms were always



available at these shops but sales were low partly due to the fact that most people felt shy to request for condoms especially when other people were around.

The implication of the above analysis is that the use of condom during sex as a preventive measure is not adequately adhered to, not even among non regular sexual partners. This supports the assertion by Bankole et. al (2004) that even among people who know about HIV&AIDS well, perceptions of personal risk, attitudes and behaviours can be at odds with the reality.

#### **4.6 Access to VCT services and facilities.**

The investigation into access to VCT services and facilities was done at two levels. The first one was the field survey that elicited responses concerning the awareness and access to VCT facilities and services. The question on VCT sought to know whether respondents have undertaken VCT and if not whether they would avail themselves if given the opportunity free of charge. The second level of the investigation was facility based whereby the researcher obtained VCT data especially from the Yendi hospital.

**Table 4.12 VCT status of respondents**

Question	Tamale Metropolis n= 100		Yendi Municipality n= 101	
	Yes (%)	No (%)	Yes (%)	No (%)
Heard of VCT?	81.0	19.0	73.3	26.7
Tested?	24.0	76.0	14.9	65.1

**Source: Author's field Survey, July, 2010**

Table 4.12 above is the result of three questions regarding the VCT status of respondents in the two study districts. The questions were whether Respondents had heard of HIV test, whether they have tested, and if not, whether they would like to test. In the Tamale Metropolis, 81.0 percent of total respondents had heard of VCT, and 65.1 percent could locate the testing facility being the Tamale Regional Hospital. However, only 24.0 percent had ever undertaken the test. But 66.0 percent of respondents who had never tested indicated their willingness to test granted that the service was free and confidential.

Similarly, in the Yendi Municipality, 73.0 percent had heard of VCT and about 59.0 percent could locate the testing facility in the Municipality. However, only 14.9 percent had ever undertaken the test. About 72.0 percent of those who have not undergone the test expressed their willingness to test provided the service was free and confidential. There was no significant difference with regard to gender as far as HIV testing was concerned. In the Tamale Metropolis, 21.1 percent of male respondents who had heard of the testing facility had undergone the test while 19.4 percent of females who were aware of the facility had tested. In the Yendi Municipality, 20.9 percent and 19.5 percent for males and females respectively who were aware of the facility had tested.

Concerning those who would not test if given the opportunity, 73.0 percent of them in the Tamale Metropolis gave the fear of disclosure of their HIV status to other people as the reason for their unwillingness. The remaining 27.0 percent felt they were not risk. Similarly, in the Yendi Municipality, 48.0 percent of those who would not test attributed that to fear of non confidentiality in their test results while 52.0 percent of them felt they were not at risk of infection.

The above analysis clearly portrays low patronage of VCT services. But the real reason for the low patronage are fear for non confidentiality in test results and low risk self perception rather than economic reasons.

**Table 4.13 VCT Statistics at the Tamale and Yendi Hospital, January to September, 2009**

Indicator	Tamale Metropolis		Yendi Municipality	
	Male	female	male	female
Receiving pre-test counselling	262	315	371	461
Tested	262	315	371	461
Receiving post test counselling	262	315	370	460
Tested positive	47	97	5	7

**Source: Statistical Department of the Yendi and Tamale Hospitals, 2010**

Table 4.13 presents VCT statistics of the Tamale and Yendi Hospitals from January to September, 2009. Investigations revealed that two main counselling and testing models are used at the hospitals. These are the integrated model and the Mobile Counselling and testing model. Routine Counselling and testing take place alongside antenatal and STI services. The mobile counselling and testing services however is through outreach to communities.

The statistics above show that more females than males went for VCT in 2009. The figures also indicate that both pre-test and post-test counselling are adhered to adequately and this corroborates results of the field survey in which 100.0 percent of all respondents who had ever undertaken the test indicated they had both pre-test and post-test counselling. Effective pre-test counselling would encourage people to submit themselves to HIV testing.

The total number of tested cases for two districts in the year was less than 1,700 and this confirms the low patronage of voluntary counselling and testing for HIV in the area.

#### **4.6.1 Cost of HIV Counselling and Testing.**

The question about the cost of HIV test was to determine whether inability to pay was an inhibiting factor to HIV testing. The response at the Yendi hospital revealed that Government as a matter of policy had made HIV testing free of charge for more than a year now. This lends credence to results from the field survey that low patronage of VCT was due to other factors either than economic.

#### **4.7 Access to PMTCT/ART facilities and Services.**

Reviewed literature in chapter two showed that antiretroviral therapy is an effective means of reducing Mother to Child transmission of HIV and the WHO (2004) emphasizes the need for all pregnant women who are eligible for ART to have it in order reduce HIV infection in infants. The objective of this aspect of the study was to find out whether pregnant women have adequate access to PMTCT services at antenatal clinics.

**Table 4.14 Statistics on PMTCT at the Yendi Hospital for January – September, 2009**

Indicator	Age Groups									Total
	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50+	
Number of Antenatal Care registrants	3	955	1753	1984	1254	399	43	0	0	6391
Number receiving Pre-test Counselling	3	796	1487	1432	1210	489	45	3	1	5466
Number tested	3	763	1425	1381	1248	463	46	3	1	5333
Number positive	0	2	3	3	2	0	0	0	0	10
Number receiving positive results	0	2	3	3	2	0	0	0	0	10
Number receiving post-test counselling	3	761	1420	1375	1243	460	46	3	1	5312
Number taking Nevirapine at ANC	0	1	2	1	1	0	0	0	0	5
Number taking Nevirapine at labour	0	1	2	0	1	0	0	0	0	4
Number of Babies receiving Nevirapine	0	0	2	0	0	0	0	0	0	2

**Source: Statistics Department of the Yendi Hospital, 2010**

A total of 6,391 antenatal registrants were recorded at the Yendi hospital from January to September, 2009. Out of this number, 5,466 of the pregnant women representing about 85.0 percent presented themselves for pre-test counselling. 5,333 or 97.6 percent of those who went through pre-test counselling were actually tested as can be seen from Table 4.14. Of the number that tested 5312 or 99.6 percent received post-test counselling while 9 out of 10 of those who tested positive were given Nevirapine, an antiretroviral drug at antenatal clinics or during labour as was appropriate. One pregnant woman expected to be given Nevirapine at labour however could not access it because of failure to have supervised delivery at the health centre

Data obtained from the Tamale Teaching Hospital indicated that all 2,718 antenatal care attendants for 2009 went through pre-test counselling and were tested for HIV. Also, there

was 100 percent result for post-test counselling. Out of 28 HIV positive pregnant women, 23 received Nevirapine at antenatal while five received the drug during labour.

The researcher discovered that PMTCT services including antiretroviral drugs for pregnant women was covered under the free maternal care policy introduced by the Ghana Government a few years ago. This together with the fact that counselling and testing for PMTCT is integrated with routine antenatal may account for the high access rates of the PMTCT services at the hospitals.

#### **4.8 Access to Antiretroviral Drugs by other PLWHA.**

A total number of 150 PLWHA at the Yendi hospital required antiretroviral drugs. However, the study revealed that only 110 were actually accessing the drug regularly. Unlike the PMTCT, general antiretroviral therapy for PLWHA is not free and the treatment package for a month cost GHC5.00. The 110 PLWHA who regularly accessed the drug paid themselves for the services but with occasional support from the Municipal Assembly and a few NGOs. The rest of the 40 PLWHA either failed to begin treatment or discontinued treatment somewhere in the course. The two reasons given for this were inability to pay for the service and fear of stigmatization. The researcher could not easily obtain similar data for Tamale.

#### **4.9 Nutritional Support for PLWHA**

Investigation was done at the Yendi hospital on the type of nutritional support given to PLWHA.

The results showed that PLWHA were given adequate nutritional counselling by staff of the hospital. However food support was lacking. Again, it was discovered that the Municipal Assembly and a few NGOs occasionally intervene with some food items such as beans, rice oil, and milk for rationing to the PLWHA. But that was not only irregular but also inadequate. But the need to complement antiretroviral therapy for PLWHA with good nutrition cannot be over emphasized. According to USAID (2004) appropriate dietary responses from clients help ensure successful treatment.



#### 4.10 HIV&AIDS Related Stigma

Stigma has been defined as the quality that discredits a person in the eyes of other people (UNAIDS, 2002). Stigma can also be a negative way by which people discredit themselves (self stigma). The objective here was to assess the level of stigma and how it affects HIV prevention and management programmes. The direct questions that were asked with the objective of measuring stigma included whether respondents would agree to eat with a person living with HIV&AIDS. Another question was whether respondents would inform their partners in a relationship or close friends if they tested HIV positive. But other aspects of the study such as VCT and accessing of antiretroviral therapy also brought out the issue of stigma significantly. The results are contained in Table 4.15 below.

**Table 4.15 Willingness of Respondents to eat from same plate with PLWHA.**

Tamale Metropolis n= 100		Yendi Municipality n= 101	
Yes (%)	No (%)	Yes (%)	No (%)
70.0	30.0	57.4	42.6

**Source: Author's field Survey, July, 2010**

From table 4.15, 70.0 percent of respondents in the Tamale Metropolis indicated that they would eat with a person living with HIV&AIDS. In the Yendi Municipality, 57.4 percent of respondents indicated that they would eat from the same plate with an HIV infected person while 42.6 percent indicated they would not. From the above, it appears that a greater percentage of the people have knowledge that merely eating from the same plate with a person with HIV&AIDS cannot make them infected. However, knowledge is different from behaviour and so the response may be different if they are confronted with the real situation.

**Table 4.16 Willingness to inform spouse if tested HIV positive**

Tamale Metropolis n= 100		Yendi Municipality n= 101	
Yes (%)	No (%)	Yes (%)	No (%)
90.0	10.0	65.3	34.7

**Source: Author's field Survey, July 2010**

Responses to the question as to whether respondents would inform their spouses or partners of an HIV positive test results can be analysed from Table 4.16. In the Tamale Metropolis, 90.0 percent of the respondents indicated that they would inform their spouse or partner if they tested positive. This comprised 52 males and 38 females. In Yendi 65.3 percent of the respondents indicated they would inform their spouses if they tested positive while 34.7 percent indicated that they would not inform their spouses or partners of their HIV positive status. However, investigation at the Yendi Hospital indicated that unwillingness of clients to inform their spouses of their HIV positive status was one of the greatest problems affecting the HIV prevention and management programmes in that institution. According to the HIV&AIDS coordinator of the hospital, about 60.0 percent of married people who test positive at the centre are unwilling to inform their spouses of their serostatus. According to ICRW (2004), stigma is the cause for the refusal by sexual partners including those in spousal relationships to disclose their HIV positive status, a situation that can result in multiple new infections.

#### 4.10.1 Stigma and HIV testing

Stigma and HIV testing was assessed by the responses of interviewees from field survey who indicated unwillingness to test. Seventy three percent and 48.0 percent of respondents from the Tamale Metropolis and the Yendi respectively who indicated unwillingness to test attributed that to fear of being identified as people living with HIV.

### 4.11 Challenges of HIV&AIDS Prevention and Management Programmes

Assessing the challenges of HIV&AIDS prevention and management programmes was to enable the researcher make appropriate recommendations for the improvement of those programmes. The challenges that have been assessed here confront implementers of HIV&AIDS prevention and management programmes and their collaborators such as NGOs, the health institutions and the general public including PLWHA. Responses from the five NGOs studied in Tamale and Yendi indicated that their dominant programmes were education on prevention of new HIV transmissions and care and support for PLWHA including food support and financial support for treatment. In all these, there were challenges.

#### 4.11.1 The challenge of inadequate and irregular funding for programmes.

All five NGOs indicated that they had budgets for HIV&AIDS programmes. Two NGOs depended solely on funding from local partners in Ghana for its HIV&AIDS activities while two others benefited from funds from external development partners only. One NGO benefited from both sources of funding. None of the NGOs was benefiting from the one percent DACF allocation for HIV programmes. Only one NGO indicated it had adequate and timely funding for its HIV&AIDS programmes within the past three years. Inadequate and irregular funding for NGOs could adversely affect HIV&AIDS prevention and management programmes and the inadequate nutritional and treatment support for PLWHA reported at the Yendi Hospital as well as the inadequate knowledge about HIV&AIDS services and facilities evidenced in the study could be attributed to that. This supports the assertion by the Worldpress (2006) that one of the biggest challenges to the up scaling of HIV&AIDS programmes in Africa is the looming funding crisis that faces the continent.

#### 4.11.2 The challenge of inadequate Health Personnel.

Available data at the Statistical Department of the Yendi Hospital indicate that there are four doctors and 45 nurses. Of the 45 nurses, 15 have been trained in counselling for HIV testing including PMTCT. It was discovered however that VCT and PMTCT were additional schedules to the nurses who performed those services. The implication of this is that the nurses including the HIV&AIDS service providers are working under stress and that could compromise the quality of services. There were no home based counsellors for PLWHA due to limited number of counsellors available and the high general demand for their services. The importance of home based care for PLWHA cannot be overemphasized. Home based caregivers assist PLWHA to adhere to drug and nutritional regimens.

The five NGOs had an average of five paid staff and volunteers. Even though all the NGOs indicated that their staff have had training for HIV&AIDS competence, they required further training in effective communication and HIV&AIDS counselling. The best means of transport for the NGOs was a motorbike and the worst was a bicycle. This challenge poses a problem for effective mobility.

#### 4.11.3 The Challenge of Stigma

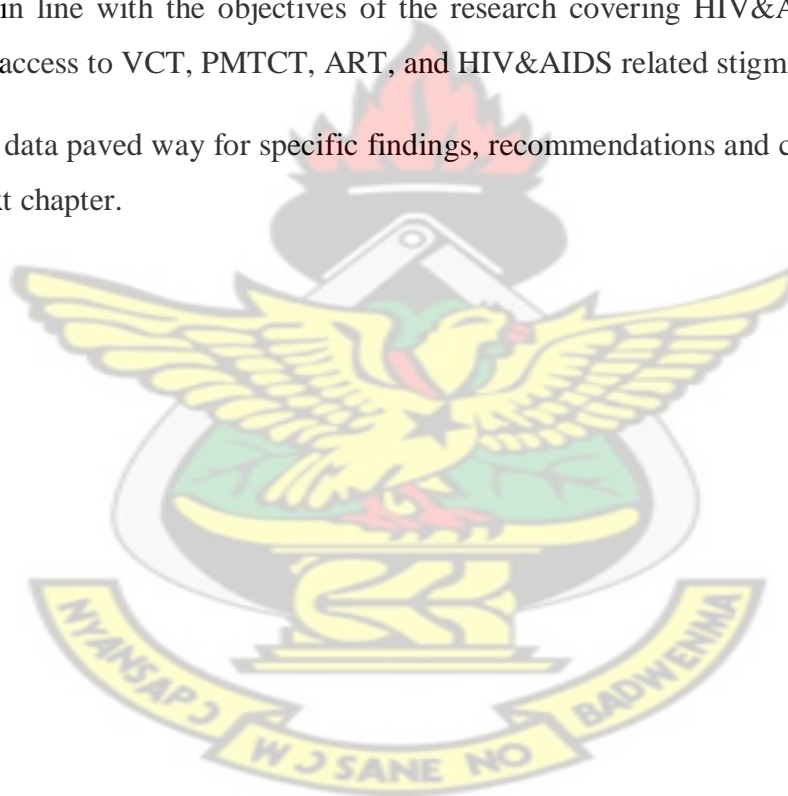
Perhaps the greatest challenge to HIV&AIDS prevention and management programmes in the study area is stigma. Stigma was seen not only as a challenge to the implementers of

HIV&AIDS programmes but also to the public including the PLWHA themselves. Stigma had negative effect on counselling and testing as well as antiretroviral therapy.

#### **4.12 Summary and Conclusion**

The focus of this chapter was to analyse primary and secondary data on HIV&AIDS prevention and management programmes in the Tamale metropolis and the Yendi Municipality. First, the demographic characteristics of respondents were analysed to enable readers appreciate the ensuing discussions. Second and more important was the analysis of the responses of the field survey and secondary data provided by implementing and collaborating institutions of HIV&AIDS prevention and management programmes. These were analysed in line with the objectives of the research covering HIV&AIDS knowledge and behaviour, access to VCT, PMTCT, ART, and HIV&AIDS related stigmatization.

The analysis of data paved way for specific findings, recommendations and conclusions to be made in the next chapter.



## CHAPTER FIVE

### SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSIONS.

#### 5.1 Introduction

The previous chapter focused on the characteristics of HIV&AIDS prevention and management programmes in the study area and involved analysis of both primary and secondary data. In this chapter, a summary has been made of the findings as well as appropriate recommendations that could help shape policy and improve on interventions.

#### 5.2 Major Findings

5.2.1 Level of Awareness and Knowledge about HIV transmission, prevention and the treatment services available.

Awareness level of HIV&AIDS was found to be very high both in Tamale and Yendi averaging 99.5 percent for the two districts. Knowledge of sexual intercourse as major mode of HIV transmission was equally high averaging about 97 percent for the two districts. However, knowledge of mother to child HIV transmission especially infection during pregnancy and breastfeeding was very low averaging less than 15.0 percent and 10.0 percent respectively. Also, knowledge of infected blood transfusion as a means of transmitting the virus was quite low averaging 41.0 percent. Knowledge of mother to child transmission of HIV was found to be associated with higher level of formal education. These point out to the fact that knowledge about the modes of HIV transmission and prevention may be high but not comprehensive enough.

With regards to the knowledge and use of condom as a means of prevention of HIV infection, the study discovered that an average of 65.0 percent of respondents in Tamale and Yendi recognize condom as an effective means of prevention of HIV infection. But of much significance was the low usage of condom even among people with non regular sexual partners as about 55.0 percent of respondents with non regular partners either did not use condom at all or used it inconsistently. Condoms are effective in preventing HIV infection if they are used correctly and consistently (Avert, 2010). Also, knowledge about where to access antiretroviral drugs was as low as 35.0 percent.



#### 5.2.2 Access to VCT and PMTCT.

The study revealed that awareness about VCT for HIV was very high, averaging about 77.0 percent. However, VCT access was low (less than 20.0 percent). But access was hindered more by the fear of stigmatization rather than economic factors as it was discovered in the study that as a matter of government policy HIV testing has been made free. Respondents largely identified VCT for HIV with the hospital settings and considering the busy nature of those settings, confidentiality cannot be fully guaranteed.

On the other hand, the study found out that access to PMTCT services by antenatal care registrants at the Yendi hospital was quite high with about 83.0 percent of the registrants undergoing tests for HIV. The success of testing for HIV test for PMTCT could be linked to the integration of the tests with antenatal care services.

With regards to access to antiretroviral drugs by pregnant women who test positive, it was found that about 90.0 percent of them received Nevirapine either during antenatal care or during labour as was appropriate. Inability of the remaining 10.0 percent to access the drug was due to their failure to be delivered at the health facility. Cost of antiretroviral drugs for PMTCT has been covered by the free maternal care policy of the Ghana Government.

#### 5.2.3 PLWHA access to Antiretroviral Drugs, Nutritional support and counselling

The study revealed that unlike PMTCT, antiretroviral drugs for general PLWHA are not free. The cost of antiretroviral drugs has to be borne by the PLWHA themselves with occasional support from NGOs and the District Assembly. As a result of this, some PLWHA either have no access at all to the drugs or access them on irregular basis which tends to defeat the very objective of the UNGASS to achieve a universal and comprehensive treatment and care system for PLWHA. Adequate nutritional counselling was offered PLWHA at the Yendi hospital but food support and home based support and counselling were lacking.

#### 5.2.4 Extent of HIV&AIDS related Stigma.

Concerning stigma, the findings of the study were mixed. The results of the field survey revealed that averagely, only 37.0 percent of respondents would not eat from the same plate with an HIV positive person while about 23.0 percent would not inform their spouse or close relative if they tested HIV positive. But data from the Yendi hospital indicated that about 60.0 percent of people who tested HIV positive objected to disclosing the information even to their spouses. Stigma also allowed few respondents to accept having ever had a member of their

household living with HIV&AIDS. Stigma thus negatively affected prevention and management programmes such as VCT, PMTCT and ART.

#### 5.2.5 Financial Logistic and Personnel challenges.

The study found out that even though HIV&AIDS implementing organizations receive grant funding from national and foreign sources, the funds were not adequate and timely enough for effective programmes. Even though one percent of the DACF is allocated for HIV&AIDS programmes, NGOs implementing HIV&AIDS prevention and management programmes do not receive part of this money for their activities because the percentage is meagre.

The study also found out that providing HIV&AIDS prevention and management services at the public hospital was an additional schedule to health workers and this has the tendency to cause stressful conditions for the health workers which could compromise the quality of services.

The NGOs did not have effective and adequate means of transport, office logistics and qualified personnel to embark on effective HIV&AIDS education programmes.

### 5.3 Recommendations.

One of the most distinctive features of planning research is the ability to make recommendations for the purpose of intervention. Based on the above findings of the study, the following recommendations were made to help improve on policies and programmes on HIV&AIDS prevention and management.

To ensure adequate knowledge of HIV&AIDS modes of infection and prevention, comprehensive Information, Education and Communication (IE&C) should be put in place by the District AIDS Management Teams in conjunction with the Ghana AIDS Commission and the NACP within the short to medium term. This should help HIV&AIDS implementing agencies in the Tamale metropolis and Yendi municipality to address specific knowledge and behaviour issues such as VCT and

the correct and consistent use of condoms as a reliable preventive measure against HIV infection especially among vulnerable populations. Sale of condoms could also be decentralized from chemical shops down to community sale points and contact persons so as to enhance patronage and usage.

With regards to VCT, it is recommended that other testing models such as the private sector and the stand-alone models be introduced as a means of enhancing greater privacy and confidentiality in HIV counselling and testing.

Since the provision of HIV&AIDS services constitute additional schedules to health workers at the hospital and a potential source of stress, the Ghana Health Service should consider training more nurses in ART and HIV&AIDS counselling to spread the burden. Apart from that, appropriate incentives need to be given to service providers to motivate them.

In line with the UNGASS objective of achieving a comprehensive and universal treatment system for PLWHA, it is recommended that antiretroviral drugs be provided free of charge generally to PLWHA just as is done under PMTCT. Furthermore, District Assemblies need provide PLWHA who are out of work with daily subsistence allowances to support them meet their nutritional requirements.

On the issue of funding for HIV&AIDS prevention and management programmes, it is recommended that government through the District Assemblies increase the District Assembly Common Fund (DACF) component for HIV&AIDS programmes from the current 1.0 percent to 4.0 percent and part of this fund used to support NGOs to implement prevention and management programmes including effective education on the modes of transmission of the disease, counselling, and stigma reduction in the districts. The money should be released timely too while enough measures are taken to ensure that there is value for it.

Without any doubt, the issue of stigma was a very sensitive one with substantial adverse consequences on HIV&AIDS prevention and management programmes. To help reduce stigma and its effects, it is recommended that strategies be put in place targeting both HIV positive and negative people. HIV negative people should sincerely reach out to PLWHA. It is also important for political and religious leaders to champion HIV&AIDS prevention and management programmes such as VCT and demonstrate their commitment by undertaking the tests themselves. The PLWHA themselves must endeavour to eschew self stigmatization and accept themselves as normal human beings.

#### **5.4 Conclusion**

It is now over two decades since the first AIDS case was discovered in Ghana. Since then, no cure has been found for the disease and people continue to die of it as many more get newly

infected. The focus of intervention therefore has been on prevention and management programmes aimed at reducing new transmissions and mitigating the effects of the pandemic on those who are living with the disease and those affected by it in other ways.

The study focused on assessing the prevention and management programmes in the Tamale Metropolis and the Yendi Municipal Assembly of the Northern region of Ghana with a view to making appropriate recommendations which could help improve the quality, efficiency and effectiveness of services.

In line with the research questions and specific objectives set out in the study, the findings were as follows:

There is high level of awareness about the HIV&AIDS pandemic. But knowledge about HIV modes of infection and prevention was not comprehensive. While knowledge of sexual transmission of the disease was high, that of mother to child transmission and transfusion of infected blood was low.

The use of condoms was generally regarded as an effective means of prevention of HIV infection. However, condom use was low even among people with non regular sexual partners.

The rate of accessing VCT services among the general population was low while access to PMTCT services among antenatal registrants was quite high.

The level of HIV&AIDS related stigma was high having a militating effect against HIV&AIDS prevention and management programmes.

In view of the above findings, appropriate recommendations were made to inform policy and possibly for appropriate interventions to enhance future programmes for the prevention and management of HIV&AIDS.



## REFERENCES

- Advance Learners' Dictionary of English (5th Edition), New York, Oxford University Press.
- Airhihenbuwa O. (2000): A critical Assessment of theories/Health models used in health Communication for HIV&AIDS, Taylor & Francis, Pennsylvania.
- Averting HIV&AIDS: (2010): Preventing Mother to Child transmission of HIV  
<http://www.AVERT.org>: Accessed 6/3/2010
- Averting HIV&AIDS: (2009): The Origin of AIDS and HIV and the First cases of AIDS:  
<http://www.avert.org/origin-aids.hjv.htm> Accessed 9<sup>th</sup> March, 2010
- Bailey K. (1982): Methods of Social Research, New York, The Free Press.
- Bankole A, Woog V., Sushela S., Wulf D., (2004): Risk and Protection: Youth and HIV&AIDS in sub-Saharan Africa, New York, Allan Guttmacher Institute.
- Economic Commission for Africa (2010): The challenge of HIV/AIDS Treatment and Care.  
[http:// www.uneca.org](http://www.uneca.org) Accessed 16<sup>th</sup> April, 2010.
- Food and Agricultural Organisation: (2010): *Living well* with HI/AIDS [http// www.fao.org](http://www.fao.org): Accessed 18<sup>th</sup> April, 2010)
- Family Health International (2005): Service Delivery Models for HIV&AIDS Counseling and Testing (December 2005 article) The Free Libraray (2008):
- Frankfort-Nachmias C. and Nachmias D. (1996): Research Methods in the Social Sciences
- Ghana AIDS Commission (2007): National Report on the progress of UNGASS Declaration of Commitment on HIV/AIDS, Ghana, Accra.
- Ghana AIDS Commission (2005): 2005 Annual Report, Accra, Josping Printing Press.
- Ghana AIDS Commission (2007): National Report on Progress of United Nations General Assembly Special Session Declaration of Committee on Ghana HIV AND AIDS, Accra.
- Ghana AIDS Commission, (2001): National Report on Progress of United Nations General Assembly Special Session (UNGASS) Declaration of Commitment on HIV/AIDS.
- Ghana Health Service (2007): Annual Report for 2007, Accra.
- Ghana Statistical Service (2003): Ghana Demographic and Health Survey 2003, Accra, GSS.
- Ghana Statistical Service (2005): 2000 Population and Housing Census, Special Report on Localities by Districts in the Northern Region, Accra, GSS.
- Ghana Health Service (2007): Ghana Health Services Annual Report for 2007, Accra.
- Ghana Statistical Service, Nugochi Memorial Institute for medical Research, and ORC 2004); Ghana Demographic and Health survey 2003, Carvelton, ORC Macro.



- <http://www.ghanadistrict.com> (2010): A repository of all Districts of the Republic of Ghana Accessed 28<sup>th</sup> April, 2010.
- International centre for research on women (2004): Understanding HIV/AIDS related stigma in Vietnam, Washington D.C. Glaxosmithline's.
- International centre for research on women (2006): HIV/AIDS stigma: Finding solutions to strengthen HIV/AIDS programmes, Washington D.C. Elton John Foundation.
- Kumar, R. (1999). Research Methodology: A Step by Step Guide for Beginners Australia, Addison Wesley Longman, Australia Ply Limited.
- Kumekpor T. (2004): Research Methods and Techniques of Social Research, Son Life Press and Services, Accra.
- MLG&RD (2010): A repository of all Districts of the Republic of Ghana [www.ghanadistricts](http://www.ghanadistricts) Accra ( accessed April, 28, 2010)
- Nabila, .J. S., Antwi, P., Yeboah A., and Kwankye S. (2001): A study of the Economic Impact of HIV&AIDS on selected Business Organisations in Ghana, Policy project, Accra.
- NACP (2001): HIV&AIDS in Ghana, Background, Projections, Impacts, Interventions, and Policy, Accra, MOH.
- National AIDS Control Programme (2004): HIV Sentinel Survey 2004 Report, Mangazina Publications, Accra.
- Nachmias C. And Nachmias D. (1996): Research methods in the Social Sciences (5th Edition), New York, Oxford University press.
- National AIDS Control Programme (2005): HIV Sentinel Survey 2005 Report, Accra, Mangazina Publications.
- National AIDS Control Programme (2006): HIV Sentinel Survey 2006 Report, Accra, Mangazina Publications.
- National AIDS Control Programme (2007): HIV Sentinel Survey 2007 Report, Accra, Mangazina Publications.
- National AIDS Control Programme (2008): HIV Sentinel Survey 2007 Report, Accra, Mangazina Publications
- National AIDS Control Programme, (2001): Background, Projections, Impacts, Interventions, and Policy, Accra
- Nelson Mandela (1997): Speech by Nelson Mandela at the World Economic forum on AIDS at Davos, 3/2/97

- New York Department of Health AIDS Institute (2006): Standards for HIV&AIDS Case Management, New York.
- Ukucheku (2007): The impact of stigma on the prevention of HIV/AIDS, December, 2007, Vol. 9.
- UNAIDS (2002): A conceptual framework and Basis for Action: HIV/AIDS stigma and discrimination, Geneva.
- UNAIDS (2004): Epidemiological Fact Sheets on HIV/AIDS and STI: Ghana 2004 update, Geneva
- UNAIDS (2008): Uniting the World Against AIDS, F:\unaid.htm 6/3/2010
- UNAIDS (2010): UNAIDS Policy Statement on HIV testing  
[http://www.who.int/hiv/pub/vct/en/hivtesting:](http://www.who.int/hiv/pub/vct/en/hivtesting)  
 (Accessed 18<sup>th</sup> April, 2010).
- UNFPA (2004): Voluntary Counseling and Testing for HIV Prevention  
[http:// www.unfpa.org/hivprevention/hivprev5b.htm](http://www.unfpa.org/hivprevention/hivprev5b.htm): (Accessed 17<sup>th</sup> April, 2010)
- UNICEF (2007): Monitoring the situation of children and Women in the Northern region, (HIRD) Supplementary Survey Report, Accra, UNICEF.
- United States Agency for International Development (2004): Nutrition and HIV/AIDS: Evidence, Gaps, and Priority Actions, Washington D.C.
- United States Agency for International Development: (2005): An In-depth Analysis of HIV prevalence in Ghana: further Analysis of  
 Demographic and Health surveys data, Carvelton, ORC Macro.
- Wessner, David (2007): The AIDS Epidemic: Cognitive Dissonance Theory and HIV&AIDS Prevention, (Friday November 30, 2007 article)
- World Health Organisation (2004): Antiretroviral Drugs for treating pregnant women and preventing the HIV  
 Infection in infants in Resource- limited settings towards universal access: Recommendations for Public Health Approach, Geneva.
- World Bank (2004): Battling HIV/AIDS; a decision maker's guide to procurement of Medicines and related supplies, International Bank for Reconstruction and Development, Washington D.C.
- Worldpress (2006): HIV/AIDS in Africa 2007- 2010, Major challenges ahead [http// www. Worldpress.org](http://www.Worldpress.org): (accessed 21<sup>st</sup> APRIL, 2010)

Zimbabwean Red Cross Society: (2006): Integrated HIV/AIDS Programme 2006- 2010, Harare.

# KNUST



**APPENDIX A**  
**QUESTIONNAIRES**

**AN ASSESSMENT OF HIV&AIDS PREVENTION AND MANAGEMENT**  
**PROGRAMMES IN THE NORTHERN REGION**

Household Questionnaire

Introduction and Seeking of Consent.: My name is Jacob Dindiok Konlaa, a final year student of the KNUST. I am carrying out a study on the above topic for my thesis and I would like to ask you some questions related to the topic. The exercise is entirely for an academic purpose and you are assured that everything you say will be kept confidential.

**SECTION A: BACKGROUND INFORMATION OF RESPONDENTS**

1. Sex of Respondent (tick)

Male ☐

Female ☐

2. How old are you (using your last birth day).....

3. What is your ethnic group? (tick as appropriate)

Dagomba ☐

Kokomba ☐

Gonja ☐

Akan ☐

Dagaaba ☐

Gurunshie ☐

Ewe ☐

Other ..... ( specify)

4. What is your highest level of formal education? (tick)

None ☐

Primary ☐

Middle/ JSS/JHS ☐

Secondary/ SSS/SHS ☐

Higher ..... (Specify)

5. Are you currently in school (tick)

Yes ☐

No ☐

6. What is your religious denomination? (tick)

Moslem ☐

Catholic ☐

Pentecostal/ Protestant ☐

Traditional ☐

Other ..... (Specify)

7. What is your marital status (tick)

Married ☐

Single (never married) ☐

Single (divorced or separated) ☐

Cohabiting ☐

8. If married ( men only) how many wives?

9. How children do you have?

10. What is your occupation? (tick)

Salaried worker ☐

Artisan ..... (Specify)

Apprentice ☐

Unemployed ☐

farmer

## SECTION B: HIV&AIDS AWARENESS AND KNOWLEDGE

11. Have heard of HIV&AIDS (tick)

Yes ☐ No ☐

12. How can HIV be transmitted? (tick as many as are appropriate)

Through unprotected sex with an infected partner ☐

Transfusion of blood of an infected person ☐

From an infected pregnant woman to the child ☐

Through breast milk of an infected mother to the child ☐

Through shared use cutting or piercing instruments

13. Can a healthy looking person have HIV? (tick)

Yes ☐ No ☐

14. Condom is an effective safeguard against the spread of HIV

True ☐ False ☐ (tick)

15. Have heard of antiretroviral drugs? (tick)



Yes ☐ No ☐

16. Do you know of any place where those who need this drug can go for it? (tick)

Yes ☐ No ☐

17. Do you know anyone who has gone for the drug? (tick)

Yes ☐ No ☐

#### SECTION C: HIV AND SEXUAL BEHAVIOUR

18. Have you had sexual intercourse with someone who is not a regular sexual partner in the past 12 months? (tick)

Yes ☐ No ☐

19. Did you use a condom? (tick)

Yes ☐ No ☐

20. How often did you use a condom during sex with a non-regular partner in the last 12 months? (tick as appropriate)

Always ☐

Sometimes ☐

Once a while ☐

Never ☐

21. What can a person do to avoid getting HIV&AIDS (tick all applicable)

Avoid / abstinence ☐

Remain faithful with partner ☐

Use condom during sexual intercourse ☐

Avoid sharing needles ☐

#### SECTION D: VOLUNTARY COUNSELLING AND TESTING FOR HIV

22. Have you ever heard of any test one can do voluntarily to determine whether one has HIV? (tick)

Yes ☐ No ☐

23. Do you know the nearest facility where one can go for the test? (tick)

Yes ☐ No ☐

24. Have ever undertaken HIV test? (tick)

Yes ☐ No ☐

25. If you have never tested for HIV, will you like to undergo the test? (tick)

Yes ☐ No ☐

26. If you would not like to undergo the test, which of these could be the reason(s)? (tick)

I don't have money ☐

The distance to the testing facility is too long ☐

I fear the staff at the facility could reveal my HIV status to other people ☐

I don't think there is any benefit going in for the test ☐

Other..... (Specify)

## SECTION E: HIV&AIDS RELATED STIGMATISATION AND DISCRIMINATION

27. Will be prepared to eat from the same plate with someone who has HIV? (tick)

Yes ☐ No ☐

28. Will you be prepared to sleep on the same bed with someone who has HIV? (tick)

Yes ☐ No ☐

29. Will you be prepared to inform your spouse or your close friend if you tested HIV positive? (tick)

Yes ☐ No ☐

30. Will you be prepared to accept and integrate an HIV&AIDS orphan into your family? (tick)

Yes ☐ No ☐

## SECTION F: COVERAGE AND PATRONAGE OF HIV&AIDS EDUCATION PROGRAMMES

31. Have you attended any HIV&AIDS session /seminar/ forum in the last three months? (tick)

Yes ☐ No ☐

32. Have you heard of an AIDS programme on radio within the past three months? (tick)

Yes ☐ No ☐

33. In the past three months, have you seen an HIV&AIDS prevention poster in your community? (tick)

Yes ☐ No ☐

34. What is your assessment of HIV&AIDS programmes in your community? (tick)

Very good ☐

Good ☐

Somewhat good ☐

Poor ☐

AN ASSESSMENT OF HIV&AIDS PREVENTION AND MANAGEMENT  
PROGRAMMES IN THE NORTHERN REGION

Questionnaire for Health Institutions (Hospitals)

Introduction and Seeking of Consent.: My name is Jacob Dindiok Konlaa, a final year student of the KNUST. I am carrying out a study on the above topic for my thesis and I would like to ask you some questions related to the topic. The exercise is entirely for an academic purpose and you are assured that everything you say will be kept confidential.

**SECTION A: BACKGROUND INFORMATION OF INSTITUTION**

1. Name of institution .....
2. Date of establishment .....
3. What is the current total number of doctors at the hospital?.....
4. What is the current total number of nurses at the hospital?.....

**SECTION B: VCT FACILITIES AND SERVICES.**

5. Do you have a Counseling and Testing facility in your hospital? (tick)  
Yes ☐ No ☐
6. How many people (youth 15 – 24 years and women 25- 49 years) on the average access VCT at your facility each month?.....
7. How will you describe the patronage of VCT services at your hospital? (tick)  
Very high ☐  
High ☐  
Somewhat high ☐  
Low ☐
8. How many HIV&AIDS trained counselors do you have at the hospital?.....
9. How will you describe the training given to the counselors? (tick)  
Very adequate ☐  
Somewhat adequate ☐  
Inadequate ☐
10. Do you have adequate trained counselors to meet the VCT services at the hospital?  
Yes ☐ No ☐ (tick)
11. How much does it cost to undertake HIV test at your facility?.....

12. What are the main challenges in the administering of VCT services at your centre? .....

13. How can these challenges be addressed? .....

**SECTION C: ANTIRETROVIRAL THERAPY, NUTRITIONAL SUPPORT AND COUNSELING, TREATMENT AND CARE SERVICES FOR PLWHA.**

14. How many PLWHA who are being counseled at your centre require antiretroviral drugs?.....

15. How many are actually the drugs currently? .....

16. Do majority of PLWHA afford payment for antiretroviral drugs and treatment for opportunistic infections?

Yes ☐ No ☐ (tick)

17. If no, who pay for them? (tick)

Family members ☐

NGOs ☐

Religious groups ☐

Philanthropic individual ☐

18. Do you provide adequate nutritional counseling at your centre for PLWHA ? (tick)

Yes ☐ No ☐

19. Do PLWHA receive food support? (tick)

Yes ☐ No ☐

20. If yes how often do the receive this support (tick as appropriate)

Weekly ☐

Monthly ☐

Once in a while ☐

21. Which is/are the source/sources of this food support? ( tick as appropriate)

NGOs ☐

Religious groups ☐

☐

The hospital

District Assembly[ ]

Philanthropic organisations[ ]

Others..... (Specify)

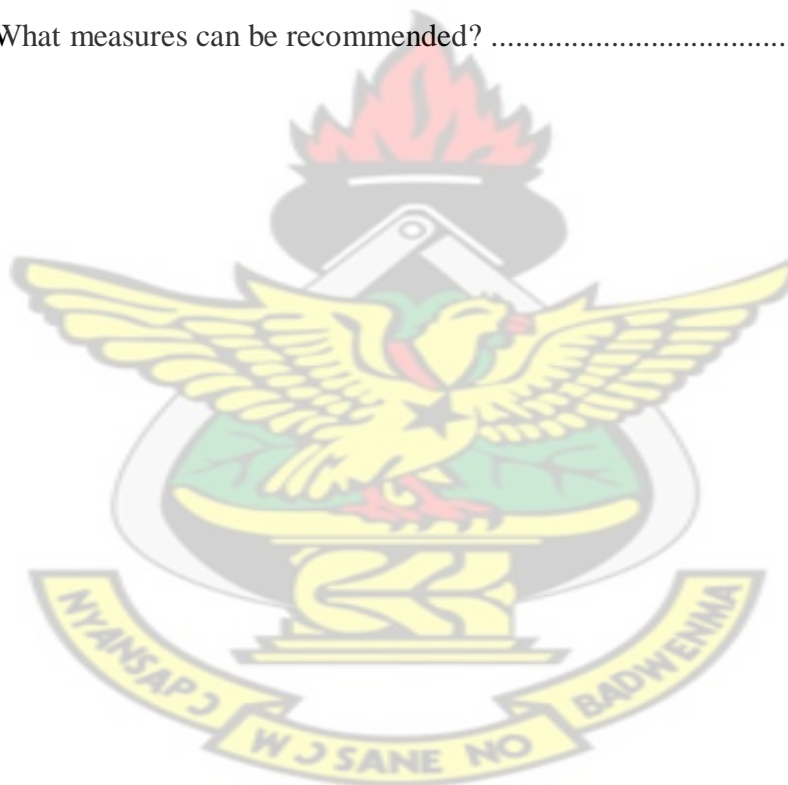
22. Are there home-based counselors for PLWHA? (tick)

Yes [ ]      No [ ]

23. What are the main challenges in the treatment and care for PLWHA at your facility?

.....  
...

24. What measures can be recommended? .....





AN ASSESSMENT OF HIV&AIDS PREVENTION AND MANAGEMENT  
PROGRAMMES IN THE NORTHERN REGION

Questionnaires for NGOs/ FBOs

Introduction and Seeking of Consent.: My name is Jacob Dindiok Konlaa, a final year student of the KNUST. I am carrying out a study on the above topic for my thesis and I would like to ask you some questions related to the topic. The exercise is entirely for an academic purpose and you are assured that everything you say will be kept confidential.

**SECTION A: BACKGROUND OF NGO/FBO**

1. Name of organization .....
2. Date of establishment .....
3. Date of registration .....
4. Status of NGO/FBO  
Local ☐ International ☐ (tick)
5. Total number of paid staff .....
6. Total number of volunteer staff .....

**SECTION B: HIV&AIDS PROGRAMMES**

7. Do you carry out HIV&AIDS education activities in the metropolis/municipality/  
Yes ☐ No ☐ (tick)
8. If yes how many HIV&AIDS education sessions have you held in the past three months?.....
9. Do you support people to undertake VCT?  
Yes ☐ No ☐ (tick)
10. If yes how many have you supported in the last three months?  
.....
11. Do you support PLWHA to access antiretroviral drugs or treatment for opportunistic infections?  
Yes ☐ No ☐ ( tick)
12. If yes how many have you supported in the last three months? .....
13. Do you give food support to PLWHA?  
Yes ☐ No ☐ ( tick)

14. If yes how often do you do give the support? (tick)

Weekly ☐

Monthly ☐

Once in a while ☐

## SECTION C: ORGANISATIONAL CAPACITY AND RESOURCES FOR HIV&AIDS PROGRAMMES

15. Have members of your staff had any training in HIVAIDS prevention and management? (tick)

Yes ☐ No ☐

16. If yes how will describe the training? (tick)

Very adequate ☐

Barely adequate ☐

Inadequate ☐

17. Which area would you require further training?.....

Do you have annual plans and Budgets for HIV&AIDS? (tick)

Yes ☐ No ☐

18. Did you have the full complement of your last HIV&AIDS budget? (tick)

Yes ☐ No ☐

19. If yes name at least one of these partners

.....

20. Is the funding timely? (tick)

Yes ☐ No ☐

21. What are the main challenges that confront you in the implementation of HIV&AIDS programmes.....