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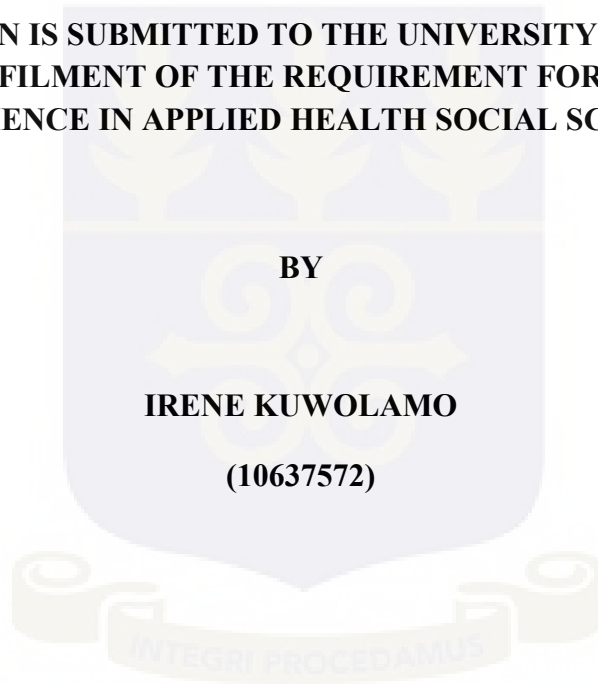
**PERCEPTIONS ABOUT HIV COUNSELING AND TESTING SERVICES IN THE
KASSENA-NANKANA EAST AND WEST DISTRICTS**

**THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON
IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF
MASTER OF SCIENCE IN APPLIED HEALTH SOCIAL SCIENCE DEGREE**

BY

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DECLARATION

I, Irene Kuwolamo, declare that except for other people's work which I have duly acknowledged, this thesis is the result of my own original work and was supervised by Professor Philip Baba Adongo, and that this thesis, either in whole or in part has not been presented elsewhere for another degree.

.....

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.....

Date

.....

Prof. Philip Baba Adongo
(Academic Supervisor)

.....

Date

DEDICATION

This work is dedicated to my Father Mr. Peter Kuwolamo and my mother Mrs. Angelica Kuwolamo for their enormous support and encouragement throughout this programme.

Secondly, I would like to express my profound gratitude to my Husband and children for their invaluable support, and finally to all my siblings for their generosity.

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Finally, I would like to thank all my study participants for providing information for this work.

ABSTRACT

Background: Human Immunodeficiency Virus (HIV) testing and counseling is a precarious and vital gateway to HIV prevention and treatment. Ghana has a policy of free or subsidized HIV testing and counseling services. However the utilization of the HIV testing services remains generally low. This study assessed community perceptions and factors influencing HIV testing and counseling services in the Kassena-Nankana East and West Districts of Northern Ghana.

Methodology: This was an exploratory study that employed a qualitative research approach. Qualitative data collection methods such as Focus Group Discussions and In-depth Interviews were used to gather primary data. Purposive sampling technique was used to select study participants for the interviews. The study population was community members and health care providers. The interviews were tape recorded with the consent of participants. The interviews were transcribed and coded using QSR Nvivo 12 software for thematic content analysis.

Results: Generally, the study revealed high level of knowledge on HIV and AIDS. In addition, knowledge on the mode of HIV transmission was quite high. The results also showed high knowledge on HIV testing and counseling services. The study highlighted major factors such as lack of awareness, stigmatization and discrimination against HIV positive patients, lack of confidentiality, unavailability of materials such as testing kits and unethical conduct of some health workers to have accounted for low uptake of HIV testing and counseling services in the study area.

Conclusion: Based on the interpretation of the data, key factors such as lack of awareness, lack of confidentiality, stigmatization, unavailability of material and unethical conduct of some health workers affected HIV testing and counseling services.

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LIST OF ABBREVIATIONS

AIDS:	Acquired Immunodeficiency syndrome
ANC:	Antenatal Care
ART:	Antiretroviral Treatment
CBHVs:	Community-Based Health Volunteers
CHPS:	Community-based Health Planning and Services
FGDs	Focus Group Discussions
GAC:	Ghana Aids Commission
GDHS:	Ghana Demographic and Health Survey
GHS:	Ghana Health Service
HIV:	Human Immunodeficiency Virus
IDIs:	In-Depth Interviews.
KNDs	Kassena-Nankana Districts
MDGs:	Millennium Development Goals
MOH:	Ministry of Health
NHDSS:	Navrongo Health and Demographic Surveillance System
PITC:	Provider-Initiated Testing and Counseling
PLHIV	People living with Human Immunodeficiency Virus
SDGs:	Sustainable Development Goals
VTC:	Voluntary Testing and Counseling

CHAPTER ONE

INTRODUCTION

1.1 Introduction

This chapter presents the background to the study which covers global, regional and national situation of HIV/AIDS. It also presents the research problem, the General and specific objectives and the research questions of the study. The justification of the study and the conceptual framework on factors affecting HIV testing and counseling services are also presented in this chapter.

1.2 Background

Human immunodeficiency virus (HIV) and Acquired Immunodeficiency syndrome (AIDS) is a major global public health issue, having claimed the lives of more than 36 million since the start of the epidemic (UNAIDS, 2017). Since its discovery in the 1980s, the disease (HIV/AIDS) has become a worldwide epidemic for which there is no cure or vaccine for it. The disease is managed by available antiretroviral drugs that are taken by patients to slow down opportunistic infections that could be life threatening to an individual since the virus destroys the body's ability to fight infections (WHO, 2014; Sasame, 2008). In 2016, about 1.8 million people were newly infected globally with sub-Saharan Africa alone contributing 66% of the new HIV cases (UNAIDS, 2017). After more than three decades of the first reported case of AIDS, sub-Saharan Africa continues have been the most heavily affected region in the world (UNAIDS, 2013). According to the UNAIDS 90-90-90 Strategy Report, about half of HIV-positive individuals in sub-Saharan Africa are unaware of their sero-status (UNAIDS, 2014).

The first cases of HIV/AIDS in Ghana were reported in the mid-1980s and since then, there has been an increase in the prevalence levels of the disease (NACP, 2004). The infection has spread to all parts of the country with considerable variation in prevalence rates across the regions with the prevalence levels in the southern parts of the country being generally higher than in the northern parts. The 2016 regional prevalence ranged from 2.7% in the Volta and Brong-Ahafo regions as the regions with the highest prevalence to 0.7% in Northern region being the lowest (NACP, 2016). In sub-Saharan African, Ghana is one of the countries that have achieved notable success in the response to the HIV epidemic with HIV prevalence of 2.0% within the general population having declined from a prevalence of 2.2% in 2006 (GSS, 2015). Although, the prevalence of HIV/AIDS in Ghana is low, about 312,030 people were infected with the disease in 2007 comprising 247,220 adults and 19,631 being children (GSS/HIV/SSR, 2007).

Ghana's HIV prevalence continues to be more than 1% in the general population (GAC, 2012). The age group mostly affected being the adult population aged 45-49 years at 5.6% followed by 35-39 years at 3.5% with sustained lowest prevalence (0.6%) among the adolescents (15 – 19 years) (NACP, 2016). It is demonstrated that more women (2.8%) are being affected with the disease than men (1.0%) (GSS, 2015). As at the end of 2015, there were 274,562 Persons Living with HIV/AIDS with women constituting about 60% of the affected group. About 89,113 of these people have been put on antiretroviral treatment (ART) and 10, 958 people died as a result of the disease (GAC, 2016). In 2015 alone, 12,635 persons were newly infected with HIV/AIDS (GAC, 2016).

In Ghana, HIV prevalence is estimated using sentinel surveillance of pregnant women who attend ante-natal clinics and also through Estimation and Projection Package modeling (GAC, 2012). It is established that early detection of HIV has implications for the quality and the life span of a patient (WHO, 2002). Therefore, HIV testing is an effective tool for AIDS prevention and control (WHO, 2012). Earlier studies have demonstrated that willingness to be tested have concentrated usually on high-risk groups such as sex workers, rural-to-urban migrants and commercial blood donors (Yuan *et al.*, 2012). It is also found that the fear of stigma as a reason for not being willing to accept free HIV tests was higher among rural residents than their urban counterparts (Syed, Sulaiman, Hassali, Thiruchelvum, & Lee, 2014; Yuan *et al.*, 2012). Also, low perception of risk has been reported as one of the factors responsible for low patronage of HIV testing services (Evangeli, Pady, & Wroe, 2016).

UNAIDS advocates that by 2020; 90% of all people living with HIV to know their HIV status (UNAIDS, 2014). Generally, knowing one's status allows for either taking preventive measures, commencing or continuing behaviors that will protect an individual from acquiring or further transmitting the virus. Knowing ones status also enables people to access care, treatment and support to help cope with the infection (WHO, 2002). Within communities, knowledge of HIV status ensures that structures are put in place to marshal community members and resources to minimize stigma, discrimination and also to provide the needed support for victims (WHO, 2001). According to the report, voluntary testing and counseling (VTC) has become a standard component of the management process instituted by National AIDS Control Programs worldwide. In addition, there is confirmation that VTC gives the opportunity for accessing comprehensive HIV care and support including access to antiretroviral therapy (WHO, 2002).

Despite the obvious advantages, patronage of HIV testing and counseling services worldwide is generally low and this is particularly so in developing countries (Sasame, 2008; WHO, 2002). In Ghana, the utilization of HIV testing and counseling services remains low within the general population (GAC, 2012). Therefore, this study assessed community perceptions about HIV testing and counseling services in the Kassana-Nankana East and West Districts (KNEWDs) of Northern Ghana.

1.3 Problem statement

Human Immunodeficiency Virus (HIV) testing and counseling is a precarious and vital gateway to HIV prevention and treatment (WHO, 2012). World Health Organization (WHO) recommends that Voluntary Testing and Counseling should be made available through specialized routine outpatient services known as provider initiated testing and counseling (WHO, 2012). Patronage of HIV testing and counseling services will help to promote the objectives of UNAIDS 2020 targets of 90% of people with HIV knowing their status, 90% of people with HIV receiving antiretroviral treatment and 90% of people on treatment having an undetectable viral load (UNAIDS, 2014). In Ghana, the National HIV/AIDS strategic plan 2016-2020 is a five year strategic document designed to fast track the country's effort towards ending HIV/AIDS by 2030 (GAC, 2016). The document is informed by lessons learnt from past interventions and the UNAIDS 90-90-90 targets. This is in line with Sustainable Development Goals (SDGs) and focuses on ensuring healthy lives and promoting wellbeing for all at all ages (GAC, 2016).

Ghana has a policy of free or subsidized HIV testing and counseling services. Also there are targeted attempts to improve equity in the distribution of HIV testing and counseling services by increasing the availability of these services to more sites in all regions in the country through

efforts made to reach the decentralized level and the provision of HIV testing services at the district, sub-district and even the community level through the Community-based Health Planning and Services (CHPS) concept. Despite these efforts, the utilization of HIV testing services remains generally low (GAC, 2012). It is demonstrated that access to HIV testing services in Ghana was 6.2% in 2008, decreased to 4.2% in 2009 and then increased to 4.7% and 4.9% in 2010 and 2011 respectively; which was within the “Know Your Status Campaign” period. However, the increase has been very marginal (GAC, 2012). In 2014, only 10.6% of young men between the ages of 15-24 years have ever tested for HIV, which has also been described as very low (GAC, 2016).

According to the 2008 Ghana Demographic and Health Survey (GDHS), among the ages 15-49 years for both men and women, 70% of women as against 75% of men knew where to obtain an HIV test. However, about 17% of women and 13% of men had ever tested and received results (GSS, 2009). Results of formative studies conducted in Ghana showed low testing rates largely because of low perceptions of risk especially among key populations (Evangeli, Pady, & Wroe, 2016). People can only access care if they know their HIV status. This gives further credence to the need to understand the factors that hinder the use of HIV testing and counseling services since this is critical for the advancement of testing programmes in the quest to achieve high coverage levels. Therefore, the main aim of this study was to assess community perceptions and factors influencing HIV testing and counseling services in the Kassena-Nankana East and West Districts of Northern Ghana.

1.4 **Justification**

In Ghana, the first cases of HIV/AIDS were reported in the mid-80s. Since then, there has been an increase in the prevalence levels within the general population with the southern parts of the country being generally higher than the northern parts. Most of these HIV positive individuals are unaware of their sero-status. Many studies on HIV testing and counseling conducted in many settings in developing countries including Ghana have focused on specific groups such as pregnant women attending antenatal care. Not much work has been done among the general population. People can only access care if they know their HIV status. Therefore, patronage of HIV testing and counseling services will help to prevent HIV infections and the spread of the disease. It will also help identify HIV positives to facilitate access to treatment and care to help promote the objectives of UNAIDS 2020 targets of 90, 90, 90. Therefore, identifying factors influencing HIV testing and counseling services and highlighting ways of increasing HIV testing can be useful information in promoting HIV testing to improve treatment and care among people living with the disease.

This study used qualitative approach to assess community perceptions on HIV testing and counseling services in the Kassena-Nankana East and West Districts. This will provide relevant and the needed information to policy makers, Ministry of Health (MOH), Ghana Health Service (GHS), Ghana Aid Commission (GAC) and program planners in the determination and the selection of strategies that will promote HIV testing and counseling services especially among the most at risk population in rural settings. This will enhance Ghana's quest to combat the spread of HIV in a bid to fulfill the country's Millennium Development Goals (MDG) 6.

1.5 **Research Questions**

1. What is the level of knowledge on HIV testing and counselling?
2. What are the perceptions of people concerning HIV testing and counselling services?
3. What is the level of utilization of HIV testing and counselling services?
4. What are the factors influencing HIV testing and counselling services perceive?

1.6 **Objectives**

1.6.1 **General objective**

To assess community perceptions about HIV testing and counseling services in the Kassena-Nankana East and West Districts.

1.6.2 **Specific objectives**

5. To assess community knowledge on HIV testing and counselling in the KNEWDs
6. To examine perceptions of HIV testing and counselling services.
7. To assess the utilization of HIV testing and counselling services in the KNEWDs.
8. To explore barriers to HIV testing and counselling services.

1.7 **Conceptual framework on factors affecting uptake of HIV testing and counseling services**

Evidence exist that certain factors influence HIV testing and counseling services. The framework (Figure 1.1) below explains perceived factors influencing HIV testing and counseling services, which emanate from health system level, community and individual levels.

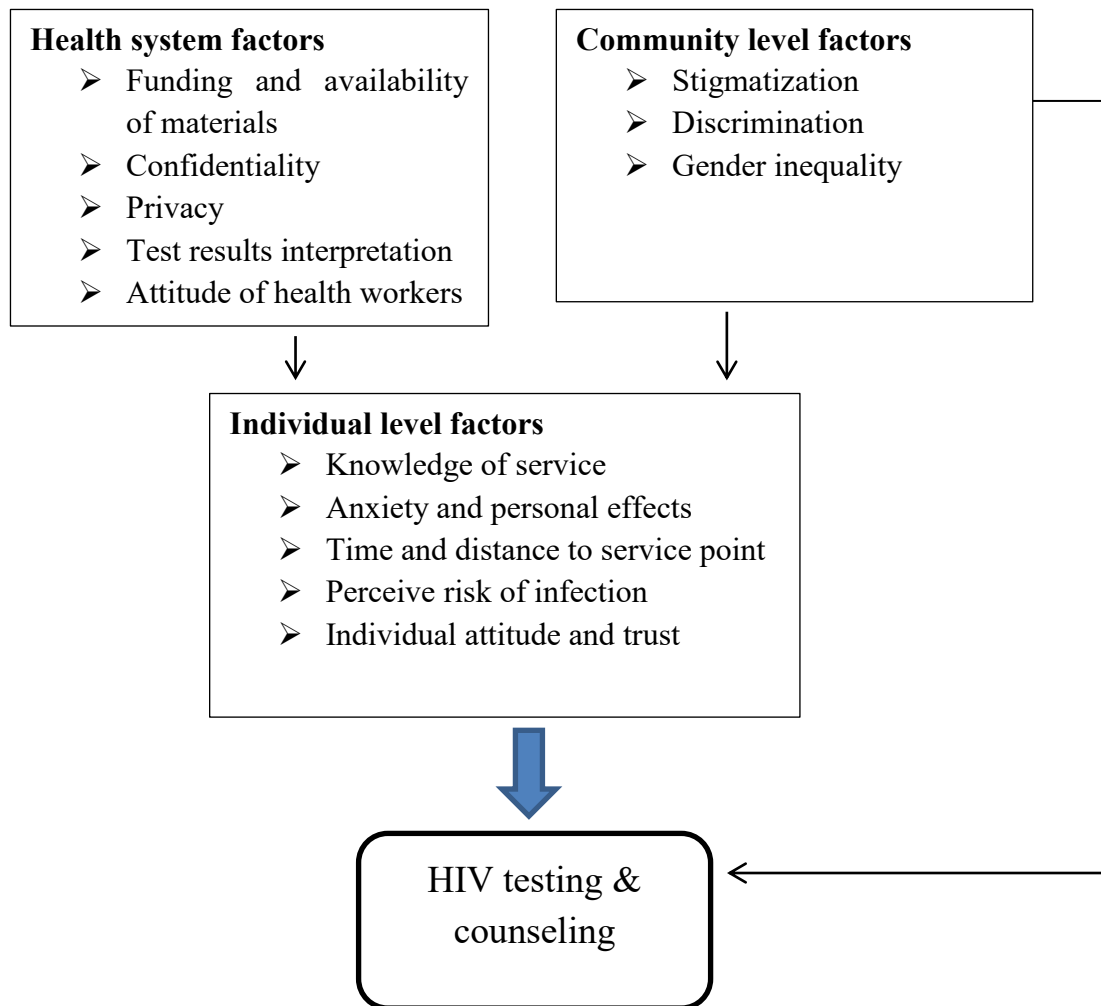


Figure 1: Framework on factors affecting HIV testing and counseling services (Source: Adapted from Glanz, Rimer & Lewis, 2002).

At the health system level, availability of materials such as testing kits, confidentiality, privacy, uncertainty of test results and attitude of health workers affect HIV testing and counseling services. Where there is no funding to acquire the necessary equipment needed to provide HIV testing services, it can negatively affect the smooth operations of HIV testing and counseling exercise. Again, where there are no funds, training of health workers involved in the testing and counseling services will be difficult to undertake in order to improve competencies of health

workers to provide the services. Where funding is available, it will ensure continuous availability of equipment and other testing materials for the provision of the services and this will also ensure effective training of health workers to equip them with the necessary knowledge and skills to provide HIV testing and counseling services to clients. Poorly trained health workers may not provide effective testing and counseling services and this may discourage people from going for the services. Confidentiality is also a health system factor that affects patronage of HIV testing services (Kwapong, Boateng, Agyei-Baffour, & Addy, 2014). Where there is trust on confidentiality of information by health workers involved in the provision of HIV testing services, people will be motivated to go for the services. Where there is no confidentiality of information, it will discourage people from going for the services because they will have the belief that their status will be made known to other community members by health workers especially those who will be tested positive. Again the attitude of health workers could affect HIV testing services and counseling services negatively or positively (Kwapong, Boateng, Agyei-Baffour, & Addy, 2014). When health workers behave nicely towards clients, it will encourage people to test and know their status. However, unpleasant behavior of health workers towards clients will discourage them and this can negatively affect HIV testing and counseling services.

At the community level, cultural beliefs, gender inequality, stigmatization and discrimination are factors that affect HIV testing and counseling services (Day, Miyamura, Grant, & Leeuw, 2010). In certain communities, cultural norms and beliefs play a vital role in determining access to health care services including HIV testing services. Where there are no cultural beliefs against people going for the HIV testing services, people are more likely to seek for these services.

Where cultural norms and beliefs are against people going in for the HIV testing services at the community level, it will directly affect the patronage of the services. Gender inequalities can also affect HIV testing services. In some communities, men have so much power to determine whether or not their wives should access certain health services. Therefore, the willingness for women to access HIV testing services depends largely on their partners decision either to agree or not for their wives to test and know their HIV status because of the stigma to the whole family especially when the test comes out to be positive. Discriminations against HIV positive people at the community level also greatly influence the decision for people to go for the services (Orisakwe, Ochiogu, & Ocholla, 2015). Where there is so much discrimination against people living with HIV/AIDS at the community level such as lack of opportunities to do certain things or hold certain positions, people will prefer not to go for the test for their status to be known. Where there is no community discrimination and stigmatization against HIV persons living with the disease, people will be willing to test and know their status since it will have no negative effect on their wellbeing. Also, stigmatization against HIV positive clients significantly affects HIV testing services. Where there is humiliation of HIV positive individuals by colleagues and friends, people will prefer not to test and know their status. Where there is no stigmatization against HIV patients, it will enhance the patronage and utilization of HIV testing and counseling services.

There are also individual level factors that can directly affect HIV testing and counseling services. Knowledge, anxiety, perceived risk of infection, individual attitude, time and distance to service points are the individual level factors that can affect HIV testing and counseling services (Day, Miyamura, Grant, & Leeuw, 2010; Orisakwe, Ochiogu, & Ocholla, 2015). Where

individuals are aware of the existence of the services, they are more likely to go for the test than where they do not have information about the availability and where to get the services (Day, Miyamura, Grant, & Leeuw, 2010). Again, the patronage of HIV testing and counseling services depends largely on individuals' decision and belief. Where people believe that there are at high risks of getting the disease, they will be encouraged to know their status and they can go in for the test. On the other hand, where people perceived that they are not or have limited risks of getting the disease, they are more likely not to go and test. Other individual level factors influencing the uptake of HIV testing and counseling services includes time spent to get access to the service at the health facility, location and distance to service points. Where people have to spend several hours at the health facility or to get to HIV testing and counseling points in order to have access to the service, it will discourage people from going for the HIV testing and counseling thereby discouraging the use of the services to help prevent HIV infections. Where less time is spent by people to get the services, it will encourage many individuals to go for the services, which will help improve treatment and care for people living with the disease.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of the literature related to the study. It includes ideas and findings of what is known about HIV testing and counseling and what still needs to be researched. The review presents the global situation on HIV and AIDS, knowledge on of HIV and HIV testing and counseling services, perception and utilization of HIV testing services. Mechanisms influencing HIV testing and counseling have also been discussed in this chapter.

2.2 Global HIV Situation

HIV/AIDS remains a global health problem and has caused devastating demographic changes in most countries around the world with Africa being the most affected. Since the beginning of the pandemic in the early 1980s, more than 36 million lives have been lost (UNAIDS, 2017). An estimated 2 million people were newly infected and 1.2 million people died from HIV related illness worldwide in 2014 (UNAIDS, 2017). In Africa, sub-Saharan countries bear the largest proportion of the disease burden with more than 69% of infected HIV people living on antiretroviral treatment. It is estimated that more than 25.8 million persons are living with the HIV/AIDS in sub-Saharan Africa as at the end of 2014; with half of this number being women (UNAIDS, 2017).

2.3 The situation of HIV in Ghana

In Ghana, since the first 26 cases of HIV/AIDS were reported in 1986, there was sharp increment in the number of new infections in the early stages. The number of HIV/AIDS cases rose from 35% in 1987 to 600% in 1988 (NACP, 2013). However, over the years, the HIV incidence has

decrease in the general population, from 0.37% in 1996 to 0.04% in 2013, among the adults aged 15-49 years (NACP, 2013). This nose dive in trend has however changed course in recent years. According to the National AIDS control programme 2016 HIV sentinel report, the prevalence was 2.4 per cent representing a second year increase from 1.6 per cent in 2014, and 1.8 per cent in 2015 (NACP, 2016).

According to the 2015 Ghana Country Operational Plan (GCOP) strategic direction summary, in 2013, the estimated new HIV infections in Ghana was 7812 with 10074 AIDS related deaths (GCOP, 2015). Seventy-six percent of the estimated 7812 new HIV infections were adults between ages of 15-49 years while 6% of them were 50 years and above (NACP, 2016). The Government of Ghana in collaboration with other agencies such as Global Fund, USAIDS are working toward achieving agenda 90-90-90 by 2020. In Ghana, this translates into more than 200,000 people living with HIV knowing their status by 2020 and about the same number of people receiving antiretroviral treatment by the year 2020 (UNAIDS, 2014). Confronted with high stigmatization and discrimination against people living with HIV (PLHIV), getting affected people to willingly test for HIV and PLHIV to adhere to treatment regime is a huge challenge (Stigma Index, 2014).

In order to circumvent these difficulties and increase the number of people who know their status, vigorous campaigns had been carried out through mobile/ outreach services all over the country to encourage people to test and receive counseling (GCOP, 2015). The setback for the Government of Ghana in achieving sustained epidemic control however has been lack of adequate funding, problems with the supply chain of antiretroviral drugs and uneven access to

antiretroviral treatment (ART) throughout the country (GCOP, 2015). These challenges had been compounded by the recent devastating fire outbreak suffered by the Ministry of health Central medical stores, resulting in huge loss of critical health commodities including Rapid diagnostic test kits and antiretroviral drugs (GCOP, 2015).

2.4 Knowledge of HIV/AIDS and HIV testing services

Knowledge of a disease is an important step towards reducing the burden of the disease. It is in this light that the UNAIDS proposed that by the year 2020, 90% of all people living with HIV should know their HIV status (UNAID, 2014). This calls for consensus effort on the part of every country to commit extra resources in order to achieve this goal. The depth of knowledge of HIV testing and counseling vary among different social groups in the population. Very few people have basic knowledge about HIV. This is demonstrated in a study conducted to explore the knowledge and use of VTC among older adults, 50 years and above, from selected districts in Botswana. The authors found that though most (96.2%) older adults knew where to get HIV test, yet only few (16%) had a perception that persons that should be tested for HIV were those exposed to the disease either through having unprotected sex or persons who think they have had sex with an infected persons or persons who have had direct dealings with needles and tattoos (Ama, Shaibu, & Ama, 2015). In a study among university students aged 17-37 years in Ghana, found significant difference in knowledge of HIV/AIDS by gender. The study established that female students demonstrated more knowledge about the disease than their male counterparts (Oppong, 2013). In the same study it was also revealed that, there were significant differences in HIV/AIDS knowledge by age groups and by marital status (Oppong, 2013). In another study that assessed knowledge and attitude towards HIV/AIDS persons living in a semi-urban community

in Malaysia, the study found that out of the 262 respondents, most (88.5%) had heard of HIV/AIDS and most knew that blood transfusion (85.3%), sex (82.8%) sharing of needles (80.6%) and maternal child transmission (75.4%) were modes of transmitting HIV/AIDS (Naing *et al.*, 2010). The level of knowledge of HIV and behavior of an individual can influence the person's risk of acquiring the disease. Knowledge of one's status is therefore critical in making decision to seek treatment (Naing *et al.*, 2010). A study aimed to identify factors that influence uptake of HIV counseling and testing amongst healthy male mineworkers in South Africa reported high level of knowledge on HIV. However, only few (14%) respondents indicated they were more likely to access Antiretroviral Treatment if it was made available (Day, Miyamura, Grant, & Leeuw, 2010). Though several studies have reported high knowledge of HIV among different social groups, it was expected that the rate of infection among the population over the years should be reducing, unfortunately, this is not the case; rather it seems the knowledge of HIV does not necessarily translate into practice (Orisakwe, Ross, & Ocholla, 2012). In their study that aimed to determine whether knowledge of HIV patients referred for HIV counseling and testing correlated with willingness to test for HIV, it was found that despite most of the respondents (90%) had excellent knowledge of HIV, yet only 71.5% tested for HIV. About (61%) of respondents considered themselves to be at risk and there was no statistically significant difference in knowledge between those who tested and those who did not test for HIV (Orisakwe, Ross, & Ocholla, 2012). Also, in a study that explored HIV/AIDS patients' perspective about the disease in Malaysia, it was reported that though majority of patients apprehend HIV/AIDS and its causes to a large extent, but their knowledge and understanding was intertwined with elements of spirituality, religion and lack of educations (Syed, Sulaiman, Hassali, Thiruchelvum, & Lee, 2014).

2.5 Factors influencing HIV testing and counseling services

Voluntary HIV testing and counseling has been advocated as one of the effective strategies for prevention of the spread of the HIV pandemic (Sanga, Kapanda, Msuya, & Mwangi, 2015). WHO recommended that Voluntary Testing and Counseling services for HIV should be made available for people to test and know their status (WHO, 2012). This strategy serves a dual purpose. It is believed that encouraging people to know their status will empower them to take action to keep away from contracting the disease. This will also prevent the spread of the disease and also help HIV positive individuals to take steps to prevent their conditions from worsening (UNAIDS, 2014; WHO, 2012). However, despite measures put in place as a guide, several obstacles hinder the smooth uptake of HIV testing and counseling services in many countries especially in the developing countries (Evangeli, Pady, & Wroe, 2016). These factors are categorized and discussed below based on health system, community and individual level factors.

2.5.1 Health system factors

Earlier studies reported health facility related barriers as major factors affecting access and utilization of HIV testing and counseling services. Evidence shows that lack of appropriate follow-up mechanisms, inadequate access to ARV drugs and poor equipped manpower have been identified to affect access to HIV testing and counseling and contributing to low utilization of the service (Adedimeji, Abbound, Merdekios, & Shiferaw, 2012). Similarly, a study conducted in South Africa reported that health facility factors also affect the uptake of HIV care and treatment services. The study found that long queues, negative staff attitude, missed testing opportunities at health facilities and provider difficulties with pediatric counseling were some of the issues affected the uptake of the HIV testing service (Yeap *et al.*, 2010). The study further

revealed that children were tested only after repeatedly reporting unwell to the facility. The study reported that better public knowledge about HIV can facilitate uptake of HIV services (Yeap et al., 2010). In a study that assessed the acceptability and feasibility of positive prevention intervention programs from health care provider perspective in Mozambique, showed that despite health workers found provider intervention programs acceptable and feasible to implement HIV testing at the health facility level, the workload, time constraints and frequent staff turnover were barriers within the health system that affected effective implementation of HIV testing services (Jaiantilal, Gutin, Cummings, Mbofana, & Rose, 2015). Poor relationship of health staff towards clients and issues of confidentiality and trust were reported as stumbling blocks to implementation and uptake of HIV testing and counseling services (Kwapong, Boateng, Agyei-Baffour, & Addy, 2014). This was a cross sectional study conducted among pregnant women aged between 18-49 years attending Antenatal Care (ANC) in Ghana. The study concluded that access to health facility alone does not translate to utilization of VTC services. The authors therefore advocated for improving health facility related factors such as health education, confidentiality and improved health worker client relationship could enhance patronage of HIV testing services (Kwapong, Boateng, Agyei-Baffour, & Addy, 2014).

Evidence suggests that most people found HIV testing to be unacceptable because of fear of social cost. This was fuel by lack of privacy and confidentiality (Wright, Stewart, Curran, & Booth, 2013). Mistrust, doubt and belief that HIV/AIDs diagnosis was equivalent to death certificate, because of the pervasiveness of stigma affected the utilization of HIV testing services (Wright, Stewart, Curran, & Booth, 2013). In a study that was conducted among care givers in South Africa found that structural barriers led to poor access to health care. The study also found

that social and system barriers influenced pediatric HIV treatment seeking (Kimani-Murage, Manderson, Norris, & Kahn, 2013). The study further revealed misconception regarding the causes of HIV disease in children. It is demonstrated that health workers viewed children to be too young for Antiretroviral Treatment and thus did not treat them. This accounted for caretakers seeking help outside the health facilities to look for support from traditional healers (Kimani-Murage, Manderson, Norris, & Kahn, 2013).

2.5.2 Community/social level factors

Stigmatization is another barrier to VTC for HIV and this barrier transcends to other spheres of life. Abrahams & Jewkes (2012) explored experiences of being HIV-positive and how people manage stigma in their daily social interactions. In their study, they found that almost all participants reported fear of stigma, with the most common stigma experiences being gossips and insults. Stigma experiences and other daily conflicts could create tensions, particularly in gender relations (Abrahams & Jewkes, 2012). Again, it is revealed that 38% of respondents fear healthcare workers would discriminate against them, thus avoided VTC services (Orisakwe, Ochiogu, & Ocholla, 2015). Though, it is found that positive prevention intervention programs are generally acceptable among health workers in Mozambique, patient level barriers such as discrimination, resistance to disclosing HIV status because of fear of stigma affected public health interventions such as HIV testing and counseling services (Jaiantilal, Gutin, Cummings, Mbofana, & Rose, 2015). Also, women fear of stigma and discrimination was borne out of the fact that disclosure of HIV status can result in rejection, divorce and abandonment by their partners, families and communities and also for fear of loss of social status (Jaiantilal, Gutin, Cummings, Mbofana, & Rose, 2015). In a qualitative study that was conducted to explore

barriers to the utilization of HIV testing among African American who used drugs in rural Delta region of Arkansas revealed that VTC services acceptability was driving by social norms (Wright, Stewart, Curran, & Booth, 2013). The uptake of VTC services by pregnant women depended on the involvement of their partners in such programs (dePaoli, Manongi, & Klepp, 2010).

2.5.3 Individual level factors

Patient fear of testing positive for HIV, and its potential consequences such as stigmatization have been identified as barriers to voluntary HIV testing (Day, Miyamura, Grant, & Leeuw, 2010). A study was conducted to explore knowledge and use of VTC among older adults from selected districts in Botswana in 2015 found that the main barriers affecting HIV testing included not feeling at risk of HIV (76.8%), fear of testing positive (10.9%) and fear of stigmatization (8%) (Ama, Shaibu, & Ama, 2015; Kwamong, Boateng, Agyei-Baffour, & Addy, 2014). A common barrier to VTC that runs through most of the research findings is fear. Most patients or clients expressed fear of having to be confronted with positive results (Zhou, Guo, Fan, Tian, & Zhou, 2009). It is found that about 26% of client in a rural South African hospital were not confident to test for HIV (Orisakwe, Ochiogu, & Ocholla, 2015). The major reason for declining Provider-Initiated Testing and Counseling (PITC) of HIV to fear of violation of privacy/rights and self-identification as being at risk of HIV infection was reported (Hu *et al.*, 2013). Perception has been defined as a constructive process that relies on a top-down processing, which entails that people make inferences about what they see and make the best guess of what the object is all about (Resinga & Davhan-Maselesele, 2017). Perception of oneself not to be at risk of infection is a strong barrier influencing patronage of VTC services. An individual

perception of the benefits of VCT impacts on their willingness to accept testing for HIV (Orisakwe, Ochiogu, & Ocholla, 2015). Again, in a study to determine whether knowledge of HIV and the attitude of patients referred for HIV testing and counseling correlated with willingness to test for HIV. It is found that about a third of the respondents (28.5%) did not test for HIV despite being referred for testing. Study participants did not recognize that they were at risk of HIV (Orisakwe, Ross, & Ocholla, 2012). A quarter (25%) of those who refused to test stated that they had their mind made not to test prior to the counseling session (Orisakwe, Ross, & Ocholla, 2012). Perception influences quality of care and VTC services. The extent of which pregnant women perceive the kind of care provided at the health facility significantly influences their decision to undertake HIV counseling and testing (Kwapong, Boateng, Agyei-Baffour, & Addy, 2014). Pregnant women who felt that they were not listened to by the health worker were less likely to embrace VTC. Similarly, those pregnant women who negatively perceive the health worker or mistrust the staff of protecting their privacy would not embrace VTC (Kwapong, Boateng, Agyei-Baffour, & Addy, 2014).

A study in Tanzania to identify factors associated with pregnant women's willingness to accept voluntary testing and counseling of HIV found that only 41.7% of pregnant women willingly accepted VTC (dePaoli, Manongi, & Klepp, 2010). The study also found that acceptance of VTC depended on perceived personnel susceptibility to HIV. The pregnant women were rather concerned with the benefits they would derive from embracing VTC, particularly benefits to their children (dePaoli, Manongi, & Klepp, 2010).

Awareness is the degree to which a person is well informed about the disease and this can influence the uptake of VTC services. The level of awareness of HIV infection, perceived personal risk of HIV infection have been reported as some of the most important driving factors influencing the uptake of HIV testing and counseling services (Day, Miyamura, Grant, & Leeuw, 2010). In the same study, only 14% of the respondents were more likely to access anti-retroviral treatment if it was made available (Day, Miyamura, Grant, & Leeuw, 2010). In a cross sectional survey to assess clients perceptions and satisfaction of HIV testing and counseling services, revealed that most (98%) of the participants cited barrier to HIV testing and counseling as lack of awareness about the service (Matseke, Peltzer, & Mohlabane, 2016).

Few studies suggested vigorous community education programs could be very essential for effective promotion of VTC services. It is demonstrated that about 30% of pregnant women attending ANC claimed they had “never been told” about VTC (Kwapong, Boateng, Agyei-Baffour, & Addy, 2014). Furthermore, door-to-door advocacy of HIV testing services has been found to be very effective and desirable way of creating awareness of HIV testing and counseling services (Ama, Shaibu, & Ama, 2015).

2.6 Summary

This review has highlighted many factors that are responsible for low uptake and utilization of HIV testing and counseling services. At the health system level, Availability of services, lack of appropriate follow-up mechanisms, inadequate access to ARV drugs and poor equipped manpower affect HIV testing services. In addition, negative attitude of health providers, workload, frequent staff turnover confidentiality and trust were also identified as factors

influencing HIV testing and counseling services. At the community and individual level, Stigmatization, discrimination, lack of awareness, perceived personnel susceptibility to HIV, fear of testing positive, partners' decision, social norms, perception of benefits and risks play a role in determining the uptake of HIV testing services. From the foregoing discussion, the literature has been silent on ways to improve the uptake of HIV testing and counseling services.

Though, a lot has been discussed in the literature on factors affecting HIV testing and counseling services elsewhere, much has not been done in the study area in that regard. This study therefore, explored further factors influencing HIV testing services in the context of the KNEWDS focusing on socio-cultural factors, health system factors as well as mechanisms that may contribute to improve patronage and utilization of HIV testing and counseling services in Ghana.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter provides detail description of the methodology used in the study. It presents a description of the study design, study area, study population, sampling procedure, sampling strategy, and data collection techniques. The chapter also explains how data was stored and managed, the quality control strategies that were used and how the data was analyzed. The chapter further discussed ethical considerations, utilization of results and study limitations.

3.2 Study Design

This was an exploratory study using qualitative research approach. Qualitative data collection methods such as focus group discussions (FGDs) and in-depth individual interviews (IDIs) were used to gather primary data. This gave the study participants an opportunity to explain in detail their personal opinions and experiences on factors influencing HIV testing and counseling services in the area. Purposive sampling was used to select study participants to share their perspectives about HIV testing and counseling services.

3.3 Study Area

The study was conducted in the Kassena-Nankana East and West Districts of the Upper East Region of Ghana. The background characteristics of the two districts are the same. The districts are located in the north-eastern part of Ghana, and borders with Burkina Faso in the North. The two districts cover an area of 1,675 square kilometres of Sahelian savannah with an estimated population of about 153,000 under surveillance by the Navrongo Health Demographic Surveillance System (NHDSS) (Oduro et al., 2012). The main languages spoken in the area are

Kassem and Nankani. The population is predominantly rural with subsistence farming as the mainstay of the districts' economy with the main crops being millet, rice, maize and groundnuts. The districts have two distinct seasons, a wet season that runs from May to September and a long dry season that starts from October to April. People in the area live in multi-family compounds which form the basis of an address system used by the NHDSS. Majority of the people live in rural and sparsely scattered settlements and this makes health service delivering often very difficult. The figure below is map of Ghana showing the study area (marked with violet color), sharing borders with Burkina Faso in the North.

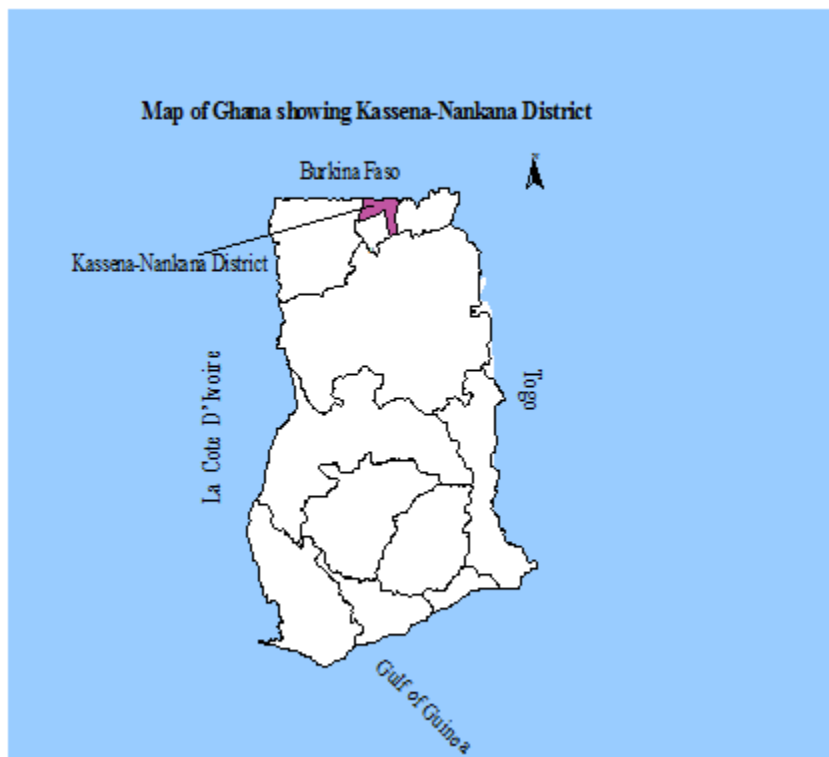


Figure 2: Map of Ghana showing the location of the study area

The districts have a total of 65 health facilities (2 hospital, 11 health centers/clinics, 2 private clinics and 50 Community-based Health Planning and Services (CHPS) compounds) located in various communities and villages providing health services to community members (Awoonor-Williams et al.,2013; Nyonator, Awoonor-Williams, Phillips, Jones, & Miller, 2005). There are community-Based Health Volunteers (CBHVs) in all the communities in the two districts supporting professional health workers to provide basic health care services to their own community members (Chatio & Akweongo, 1017).

3.4 Study population

The study population was male and female community members and health care providers in the area. The study participants consisted of people who are 18 years and above because these are adults who can take decisions for themselves and also, it is a legal age for informed consent in Ghana per the 1992 Constitution of the Republic of Ghana.

3.5 Sampling of communities and study participants

Purposive sampling technique was used in this study. First of all, two communities, one in each district was selected in the study area for the interviews. Community members (male and female) in the two communities were then selected for the FGDs and IDIs. The FGDs were conducted with male and female community members while the IDIs were conducted with opinion leaders such as women and men group leaders, youth group leaders, Chiefs and elders in the study communities. For the health providers, four health facilities located in the study area were first selected and health care providers working in these health facilities were identified and invited

for the IDIs. They shared their views particularly on health system factors affecting the provision of HIV testing and counseling services.

3.6 Data Collection Tools

Interview guides were developed and used for the interviews. The guides covered key thematic areas such as knowledge of HIV testing and counseling services, perception and utilization of HIV testing, factors affecting HIV testing and suggested ways to improve the uptake of HIV testing and counseling services in Ghana.

3.7 Data Collection Technique

Appointments were booked with all the study participants on the date, time and venue before the interviews were conducted. A total of four FGDs and ten IDIs were conducted with community members and opinion leaders respectively. Four IDIs were also conducted with health providers from selected health facilities in the study area. The interviews were tape-recorded with the consent of participants. Notes were also taken to serve as backup in case the recordings were not done properly. Each FGD lasted for about 50 minutes while the IDIs lasted for about 35 minutes respectively. The interviews were conducted in Kassem, Nankani and English depending on the preference of study participants. Each FGD was made up of a minimum of 8 and a maximum of 12 members. The participants shared their views and knowledge of HIV/AIDS, HIV testing and counseling services, their knowledge on the availability of and access to HIV testing services and general factors influencing the patronage and utilization of HIV testing services. Views were also solicited from study participants on mechanisms to improve the uptake of HIV testing and counseling services in Ghana.

3.8 Quality control

3.8.1 Training

Two graduate research assistants were recruited and trained by the lead researcher for data collection. They were taken through the overview of the study with emphasis on the main purpose and objectives of the study, data collection procedures and how to administer informed consent. They were also introduced to qualitative interviewing techniques and transcribing of the interviews. During the training, data collectors were made to translate the interview guides into the main local languages spoken in the study area. Role-play was done during the training session to help enhance their understanding of the interview guides and also how to ask the questions appropriately during the actual interviews.

3.8.2 Supervision

During the data collection, the lead researcher supervised the work of the research assistants to make sure that the data collection was done very well. The researcher was present in the field to help data collectors to explain certain issues they did not understand well. The IDIs were conducted by the lead researcher herself.

3.8.3 Pre-test

Pre-test was conducted at the end of the training. The essence of the pre-test was to help evaluate the performance of the data collectors and also helped the lead investigator to finalize the interview guides for data collection.

3.9 Data processing and analysis

First of all, the recorded interviews were transcribed verbatim and prepared for data coding. The transcripts were edited by the lead investigator to correct grammatical errors. Guided by the research questions, objectives of the study and the themes contained in the interview guides, a codebook was developed to facilitate data coding processes. The codebook contained definitions of major themes and sub-themes taking into consideration the research questions and the objectives of the study to guide in the coding processes. The data coding and analysis was done simultaneously with data collection. This was to ensure that new themes that are similar to the study objectives were incorporated into the guide and to also ensure that data was collected to cover all thematic areas. The transcripts were uploaded and coded using QSR Nvivo 12 software for analysis. The coding process involved a critical review of each transcript to identify and code texts into appropriate themes.

For the data analysis technique, thematic content analysis was used to analyze the data. The process of thematic content analysis means reading through textual data, identifying themes, coding the texts into the themes and then interpreting the content of the themes (Guest, Macqueen, & Namey, 2012). The transcripts were classified based on variables such as age, gender, educational level, religion and location of study participant. These variables were captured in the NVivo software as attributes. This method helped to interpret and analyze opinions expressed by study participants based on these variables. The major and sub-themes were then discussed in the results section, supported by relevant quotes from the transcripts.

3.10 Ethical considerations and approval

The protocol was reviewed and approved by Ghana Health Service Ethics Review Committee (GHS-ERC: 024/12/17) before the field activities commenced. Written informed consent was administered to all study participants. They were also informed about the purpose of the study, their rights as respondents and how they were selected to take part in the study. Confidentiality was assured in this study. Participants were informed that the information provided will be treated in strict confidence and will only be used for the intended purposes.

3.11 Utilization of results

This work will be submitted to the University of Ghana in partial fulfillment of the requirements of the award of Master of Science Degree in applied health social science. The findings of this study would be made available to the School of Public Health, University of Ghana, the Kassa-Nankana East and West Districts' health directorates, Ghana Ministry of Health, Ghana Health Service and Ghana Aids Commission. The lead researcher also intends to use the findings to write manuscripts for publications in peer-review journals.

CHAPTER FOUR

RESULTS

4.1 Introduction

This chapter presents the result of the study. The results section is presented along the study objectives and the conceptual framework used to guide the study. The results are presented on community knowledge on HIV/AIDS, Knowledge on and awareness of HIV testing and counseling services, perceptions and utilization of HIV testing services. The chapter also presents factors affecting HIV testing and counseling services and mechanisms to improve patronage and uptake of HIV testing and counseling services.

4.2 Community knowledge on HIV/AIDS

Generally, the study findings revealed high level of knowledge of HIV and AIDS. In addition, knowledge about the mode of HIV transmission was quite high in findings of this study. Most of the participants perceived that the major form of transmission was through sexual intercourse. They explained that somebody could get infected with the disease through sexual intercourse with an infected person. They held the view that this was the most common way HIV could be transmitted from one person to the other. The following quotes from participants illustrate their level of knowledge about HIV/AIDS:

“There are several ways through which one can get the disease. However sexual intercourse is the fastest and most common means by which the disease spread” (FGD-men-Kajelo).

“You mean the Agutiii (you must die by all means) disease (HIV)? Oh we came to meet the disease; it has been there since time immemorial....we learned that there are several pathways through which one can get infected with the disease. However sexual intercourse is mainly the cause of most HIV infections. If somebody is having the disease and engages in unprotected sex with another person who is negative that person is likely to contract the disease” (IDI-56 year old men youth group leader-Vunania).

“When people discover that somebody has the disease then their mind is that oh you, you are a sex Baron and that is how come you got the disease. They conclude that it is your lifestyle that had led to getting the disease, it is because of your refusal to sleep at home that is why you got infected....”(IDI-35 year old male opinion leader-Kajelo)

Study participants also mentioned deep kissing, female genital mutilation practices and through breast milk as other ways by which HIV could be transmitted. They held the view that when people were engaged in deep kissing to the extent that there was blood in their lips, somebody could be infected through that. They reported that the disease could also be transmitted through the use of infected objects such as blades and knives.

“... deep kissing can also lead to someone getting infected with HIV because when two people engage in a deep kiss, it can cause cracks on their lips hence having blood contact can lead to a positive person infecting somebody who initially did not have the disease” (FGD-Women-Vunania).

“... there are other pathways through which someone can contract the disease, for instance the use of sharp objects such as blades, knives and this is possible if an HIV positive person uses these objects and someone else comes into contact with these objects then he/she can get infected with the virus” (FGD-men-Kajelo).

“It can also spread when a pregnant woman who is infected gives birth and the child sucks the mother’s breast milk, it can pass through the breast milk and infect the child. At the time of delivery it can affect the child if the nurses don’t take time to take care of the child” (IDI-45 year old female group leader-Vunania).

Few of the participants also perceived that the disease could be transmitted through the use of infected toothbrush and sponge. A participant in one of the female group discussions in Kajelo shared her views this way on the issue:

“What I have heard about it is that when you are infected and you use a sponge and toothbrush that you use and another person uses it, the person can get the disease” (FGD-women-Kajelo).

4.3 Strategies to prevent HIV

Discussants in both the FGDs and the IDIs shared their knowledge on various ways to help prevent the spread of the disease. The most common preventive methods mentioned by most of the participants were abstinence, being faithful or having one sexual partner and the use of condom during sexual intercourse. They were of the opinion that when people adhered to these methods, it would help prevent the spread of HIV. The views of community members are exemplified in the following quotes:

“If I don’t want to be infected with HIV, the best way to prevent the disease is that, you have to use condom, or you should abstain from sex, you shouldn’t be thinking of sexual activities, and when you are able to do that you wouldn’t be infected” (FGD-men-Vunania)

“...I learned that abstinence is the best way of preventing the disease but where there is the need for intercourse then the alternative is to use condom” (IDI-56 year old sub-chief-Kajelo)

“If you are not married and you want to take up a boyfriend you need to be faithful to each other, just picking everywhere is not helpful because you could be infected with the diseases” (FGD-women-Kajelo).

Few of the participants were also of the opinion that when people were educated on various ways to protect themselves from being infected with the disease, it would help to reduce the spread of HIV/AIDS. They also mentioned proper disposal of used objects such as blades, knives and needles as another strategy to help prevent the spread of the disease. They said that people should avoid using these objects that have been used by others. These views were mainly expressed by participants in the Nankam communities compared with the Kassam communities.

“People should be educated on how they can protect themselves, also in the schools it would be good if health workers are going round talking to the students on how they can protect themselves and this for me would have been very helpful”(IDI 56 year old male opinion leader-Vunania)

“Also, on the issue of needle sharing I think proper disposal of needles after use is the best way to avoid infecting other people with the disease, for example digging deep and burry needles and sharp objects after use. People must also stop using blades that have been used already by other people and on the side of the needles which are mostly used in our health facilities, I would say that the nurses should not use one needle to inject two or more people” (IDI-33 year old women youth group leader-Vunania).

4.4 Management and care strategies for HIV patients

In order to assess stakeholders’ level of knowledge on strategies to manage HIV positive patients, views of study participants’ were solicited on the issue. In both the FGDs and IDIs, community members with whom we spoke all said there was no cure for HIV. They however reported that there were drugs that HIV patients could take to help build their immune system to enable them live longer.

“We heard that the white man has not yet discovered the cure for HIV however we are aware they have drugs that can reduce the severity of the disease and also prolong your life. Based on the name Aguitii which literally means (I will kill you by all means) this makes us have the feeling that if I acquire the disease it will by all means end my life but thanks to the white man he did well for bringing drugs that will prolong our lives” (IDI-35 year old men youth group leader-Kajelo)

“HIV, what I heard about it is that it is a disease that if you are infected it has no cure but they have drugs. When you are infected and you go and test yourself and realize you have the disease, they can give you some drugs to be taking to help you leave a normal life”(IDI-56 year old elder-Vunania).

“I heard that there are drugs that will help you live long small but for it to cured, it cannot be done. This is what we heard” (FGD-men-Vunania)

Interestingly, in one of the group discussion in Kajelo, a female participant shared her views this way on how HIV could be managed with local treatment. As she put it:

“There is local treatment for the disease, with the local treatment you wouldn’t be able to know that you have AIDS unless you go to the hospital for them to test you that you will know that you have AIDS” (FGD-women-Kajelo).

4.5 Knowledge on and awareness of HIV testing and counseling services

Views were also solicited from study participants about the level of awareness on HIV testing and counseling services and various views were expressed by stakeholders on the issue in the discussions. While most participants knew about the HIV testing and counseling services, few of them however were not aware about the existence of the services. Others knew that HIV testing services were only offered to pregnant women during their ANC visits. Also, few of the participants who knew about the availability of the services at the health facility in the past could not tell whether the services were still available or not as demonstrated in the following quotes:

“Yes, I am aware of it, if you want to know your HIV status you can go to any hospital you wish, the clinics also render these services or any health worker or nurse can help you do the test” (FGD-men-Kajelo).

“Yes, I know about the testing for HIV. When you go to the hospital and tell them you want to check your HIV status, they will check it for you. Also, when you are a woman and you go for ANC, they always tell you to go and test, so I know it is at the hospitals that you can go and test” (IDI-37 year old women group leader-Vunania).

“It is not everybody who is aware of it. It is because I went to the hospital and saw it on the wall that I got to know either than that I was not aware and is not everyone who goes to the hospitals can read. Most of them are not even aware that they do it in the hospitals and If not because my brother said they do it at the CHPS compounds I didn't know” (IDI-46 year old men group leader-Kajelo)

Some of the participant reported that HIV testing services were offered at the community level. They explained that phone numbers of nurses were made available at the community level for interested persons to call for the services. These views came up mostly in the discussions with community members in the Kassem area, Kajelo compared to the Nankam area. In their own words participants gave examples in the following quotes on how the services were offered at the community level.

“The health workers are always happy when they see people who voluntarily come to them for the test and you see they are making efforts to get people to accept the testing services. Because of that they have specific phone numbers which have been given out to the general public particularly for the benefit of those who are weak and unable to get to the health facility could call them to come and test them in the house” (FGD-men-Kajelo).

“Yes I have heard about it, and most times the people do come around to test us at the community” (IDI-64 year old older-Kajelo).

Most participants indicated that they had heard about HIV on the radio, from health workers and also from Navrongo Health Research Centre workers. Others also mentioned the television and public gatherings such as picnics as their sources of information about HIV testing services.

“mostly we hear on radio that if you want to test you can go to the hospitals but sometimes when they are having programs like the yearly Easter picnic, a team came there and was doing the test” (IDI-31 year old male youth group leader-Vunania)

“It is because I went to the hospital and saw it on the wall that I also got to know either than that I was not aware and is not everyone who goes to the hospitals and can read. Most of them are not even aware that they do it in the hospitals and If not because my brother said they do it at the CHPS compounds I didn't know so they have to try and talk to the people to agree” (IDI-46 year old male opinion leader-Kajelo)

The study further explored participants' views about the cost of doing the test and mixed sentiments were expressed by stakeholders in the discussions on the issue. While some participants perceived that the services were offered free of charge for people at the health facility level, most of them held the view that they were supposed to pay for the services. Some participants however, could not tell whether the testing for HIV was done for free or not. Study participants who said HIV testing was not offered free of charge expressed their views this way in the following quotes:

“What I have also heard is that, they are not supposed to take money but when you go there, they say it is fifteen cedi (¢15.00), they collect money before they test you” (FGD-men-Vunania)

“As for that first it was free but now they say when you go they will collect five Ghana cedis (¢5:00) or so to test your blood to know whether you are infected or not. A friend of mine went to test and she was told to pay they didn't mention the price to me but she was asked to pay some money before they do it for her” (FGD-women-Kajelo).

“If you go you will pay money and the money is like twenty Ghana cedis (¢20.00). If there are other places that they don't pay that is NGO's that always come to help people or some health workers can come from Kumasi to Navrongo to help people, those places you don't pay but if you get up on your own and go to health facility, you will have to pay before they test you” (IDI-53 year old sub-chief-Vunania).

The following quotes also conveyed the views of those who reported that HIV testing and counseling services were offered free of charge to people.

“I learnt the test is free and once you walk to the facility and request for it, they nurses will do it free of charge for you” (FGD-women-Vunania)

“Oh they said the test is free, even when that team came they did it free for community members in Kajelo here” (IDI-56 year old sub-chief-Kajelo).

“No they don't charge for it, it is free because I haven't heard from any community member complaining about payment for the test” (IDI-36 year old male youth leader-Kajelo)

This was confirmed by the health workers who took part in the study. They said that HIV testing and counseling services were offered free of charge in all public health facilities for interested persons who wanted to know their status. As one of the nurses put it:

“Yes they are aware, they are aware the test is free, we don't pay anything, is free in all Government health facilities. Even sometimes those who don't know that it is free when they come and test then they would say oh madam it's show much, then I tell them oh it's

free so when you go tell the others that is free they should come and test” (IDI-27 year old health worker)

4.6 Availability and access to HIV testing and counseling services

Views were solicited from stakeholders on availability of HIV testing services and where people could get access to the services. Most of the participants reported that HIV testing services were available at the health facility level. Others said that the services were available at the private laboratories and health facilities that people could get access to. Some participants also reported that HIV testing and counseling services were offered to interested persons at the community level either by health workers or private organizations.

“You can go to Navrongo hospital, you can also go to Paga hospital and test. There are other people who have expertise in the area of HIV and if you want to know your status and you are up to ten people, you can organize and then call them on phone they will come and test you yes it is something they have been doing. They are two ladies and based in navrongo” (IDI-35 year old men youth group leader-Kajelo).

“I know that the hospital, here in Navrongo we have many places... War memorial is a health facility that people can go and check themselves. There are also some private laboratories and health facilities that you can go and check yourself” (IDI-44 year old women group leader-Vunania)

“I remember some time ago, a team from outside came to our community to voluntarily offer HIV testing and counseling services. look it was no joke that almost the entire community came out to access the services and I think if you people could organize similar services from time to time for the community members then you can get them to do the test but if you expect them to go to the community clinic, then forget it because they are not ready to go there. We came out in our numbers to test because we did not know these people so this gave us some level of confidence to go for the test” (FGD-men-Kajelo)

4.7 Perceptions on HIV testing and counseling services

Views were also solicited from stakeholders about HIV testing and counseling services. Overall, the opinion of stakeholders on the issue was positive according to the findings of the study. Most

participants maintained that it was very necessary and useful for people to test and know their HIV status to help them live a decent life. They added that it was important for both married and people who were not married to go and test before they engage in sexual intercourse. They said it was better to go for the HIV test and if it was positive, appropriate measures and care could be given to you by the health workers to enable you live longer. They observed that in recent times, HIV has been considered among other common diseases such as malaria, diarrhea, hepatitis B and cancer. Study participants however called for more community sensitization to create awareness for more people to go for the test. Similar sentiments were expressed by both men and women in the study as captured in the following quotes:

“It is good for people to test and know their status. I want to add that even if you are single lady or man, there is the need for you to test and know your HIV status, even it should be the same with married couples to test and stick to your husband or wife alone” (FGD-women-Vunania).

“It is appropriate for both partners to test and know their status and if it is established that you are both negative then you can go ahead with the relationship. In a situation where one is tested positive, then it is not advisable to continue the relationship. So for me it is good to do the test” (FGD–men-Kajelo).

“AIDS is now like malaria, hepatitis B and cancer and so I will say everyone should try and go to the test and know your HIV status so that if you are infected they can counsel you and show where you can get the drugs to be taking so that your life can be prolong. It is good for everybody to go and do the test” (IDI-33 year old women youth group leader-Vunania).

Similar sentiments were shared by health workers in the study. They observed that it was important for people to test and know their HIV status. They maintained that it would help health providers to offer advice to those who would be tested positive to enable them live a normal life. Such people according to the nurses would be put on the anti-retrovirus drugs early to help build their immune system and for them to leave a normal life.

“Actually, it’s very good and for people to know their health status is a concern for us the health workers. It is good for people to test and know their HIV status and when you are positive you will start the treatment early to enhance their immune system. This will even prevent the person from getting into the AIDS stage whereby a lot of complications will set in like the diarrhea and they will have to admit you and that is where the stigma will come in” (IDI-27 year old Community Health Nurse-kajelo).

Though majority of the study participants had positive sentiments about HIV testing and counseling services, they however complained about the stigmatization and discrimination associated with HIV positive patients in some communities. Most of them also mentioned anxiety and personal effects people might go through if they were tested positive, which for them was a worrying issue. As they put it:

“As for me, it’s good to test and know your status. However some people are shy to go and test because when they test and is positive and they don’t have strong heart, they will be walking with heartbeats and they can think and even die early” (FGD-men-Vunania)

“In my opinion the test is a good initiative but because of human fears we are always afraid to go and test. When you test and you happen to have it you will be very miserable and that is the reason why people are not willing to go and test. When you discover that you are HIV positive then you feel that life is not worth living, you feel like you are a living corpse and for somebody to perceive him/herself as a living corpse is something that is worrying and these are all reasons why people are not prepared to do the test” (IDI 46 year old men group leader-Vunania).

“The testing is good but just that there’s the fear of being pronounced infested. Other test and are pronounced infected but will keep it to themselves for the fear of stigmatization and they might end up dying. So it is the personal effects that one will go through makes people not interested in going for the test because when they are tested HIV positive, it will disturb them and they may even die early” (FGD-women-Kajelo).

4.8 Views on other community members perception about HIV testing services

Study participants expressed varied views about community members’ perception on HIV testing and counseling services. According to them, some community members regarded HIV testing and counseling services as good and necessary while others had contrary views. Some of the

participants argued that the other community members thought it was appropriate for people to test and know their HIV status. They added that community members were ready and willing to undertake the test and know their HIV status.

“To me as we are seated here, this is all the community (janania) we are only a few representing them so whatever we are thinking everyone has the same. So the way we are seeing it to be good, everyone in the community thinks the same” (FGD-men-Vunania)

“What I can also say is that community members thing it is good to tests. The problem however is lack of information about the service” (FGD-women-Kajelo)

“Oh when the team came from outside to offer us the services the community members went in their numbers to test which suggest that they are willing if they get opportunity to test” (IDI-56 year old elder-Kajelo).

Similar observations were shared by health workers about community members’ willingness to test for HIV. As one of them put it:

“...for the community members they think that it is a good thing to test and know your status. Some come for the test but you know you can’t get it like that, sometimes we have to go out and then encourage them to come for testing but they are coming, you will be there and some people will come with their wives, and families and test” (IDI-28 year health worker).

Some of the participants however could not tell what other community members think about HIV testing and counseling services. They said that opinions of people varied and for that reason they were unable to comment on what the views of other community members would be concerning HIV testing and counseling services. They explained that some community members would view the test as good while others might have contrary views. As one participant put it:

“Hmmm, every human and their thoughts, there are others who will be thinking in the same way as me that the test is good, there are others who may think that even if they

don't test it is better than testing to know your status, so every human and their thoughts” (IDI-44 year old women group leader-Vunania).

However, some of the community members and health workers who were interviewed reported that some individuals would have wanted to test and know their HIV status, however, the issue was fear of being tested positive. They added that the issue of discriminating against HIV positive patients also affected interest and willingness of people to undertake the test. According to participants, the perception that the disease was not there again also made some people not to show interest in HIV testing and counseling services. They added that community members complained about the cost of receiving the service as one factor preventing them from going for the test.

“In their view they like it but that is what we have said earlier that the issues is money they say now they take money before testing, now everything is done with money so when you want to go and test and you don't have money you cannot do it” (FGD-women-Vunania).

“eee the problem too with the testing is that some people don't even want to know their status, they fear to know their status so people feel that it is better I don't even know than to know and start thinking about the disease and I would end up dying so most people will not even come because they don't even want to know their status” (IDI-35 year old health workers).

“In actual fact, the community members fear to go for the test because if you go and it happens to be positive then people will start pointing fingers at you, the stigma will be unbearable and because of this, people are finding it difficult to go for the test. The other thing is that when a community member is sick and we are called upon to go and donate blood for the person, some people are always not willing to go for fear of the fact that their HIV status will be disclosed and this problem is really affecting us as a community” (FGD-men-Kajelo).

According to study participants, other community members had the perception that there was no need for a healthy person to go and test for HIV. For them, such community members perceived

that blood samples were drawn from people and sold in the name of HIV test and they would still collect your money in addition.

“Some people don’t like it and when you are going to test, people ask what is wrong with you and you are going to test? They are going to draw your blood to sell if they draw your blood and the blood is good they will go and sell it and they wouldn’t give you any pesewas and still collect your money on top? I wouldn’t go you see what it is? You would realize that the people are hearing this information and this wouldn’t make them go and test” (FGD-women-Kajelo).

4.9 Level of trust on HIV testing and counseling services

Generally, there was low trust on HIV testing and counseling services in this study. Study participants lamented that people could be told they had the disease after the test even though they could be negative. They attributed this to inappropriate interpretation of results sometimes by health workers. They reported that this development made some people not to trust their test results. Lack of confidentiality on the part of health workers also affected community trust and confidence on HIV testing and counseling services according to study participants.

“When you get to the hospital to test and after the test some of the health workers speak the truth but some don’t. After the test, they can tell you that you are infected meanwhile it is not true. You will go to this one and test and they tell you that you are not infected and you go to another and they tell you that you are infected. So this is the problem about it” (FGD-women-Kajelo).

“In fact there is low trust by people on HIV testing and counseling services because they could give you wrong results. Sometimes because there is no privacy at the health facility and the fact that they could easily give another person’s results to you are some of the reasons why people do not want to go and do the test” (IDI-33 year old female youth group leader-Vunania)

“The people think that if they test and is positive the health workers will go out and tell other people, they may even go to the extent of saying that you are HIV positive but it may not be true. This is actually making people not to have trust and to go and test” (IDI-45 year old elder-Kajelo)

4.10 Utilization of HIV testing and counseling services

Though, the level of trust on HIV testing services according to the findings of this study was low, there was however high uptake of the HIV testing services by study participants. Majority of them indicated that they had ever tested for HIV. The views expressed by study participants showed that some had gone for the test for three or more times. Some of the participants especially the female participants reported that they were tested during pregnancy.

“I have tested for three times. First in secondary school and we were told infected people will be counselled and given drugs. The second test was when I was pregnant for my first child and the third time was when I was pregnant for my second child” (FGD-women-Kajelo).

“hmmm, I did the test several times because I have been donating blood to many people, those I donated blood to will be up to ten so I am not afraid again to test for HIV” (FGD-men-Vunania)

“I have done the test several times and there is nothing like you have finished testing because there are several ways by which you can get the disease and if you test to know whether you have or not it is better, so that is why I am always testing” (IDI-56 year old elder-Vunania).

“Yes I did the test that was three years ago in Bolga and since then I haven’t done it again so if I get opportunity to go and test I will be willing” (IDI-46 year old men youth group leader-Kajelo)

Nonetheless, some participants reported that they had never tested for HIV before. In their own words, they had this to say on the issue:

“That is one thing I cannot confidently talk about because I have not done the test myself before” (FGD men-Kajelo)

“I have never tested for HIV. The reason why I have never tested is that when my husband was there he was really chasing women but that time the prevalence of AIDS was not like the way it is now where most people are being infected. So I have never done the test” (IDI-44 year old women group leader-Vunania).

4.11 Willingness to undertake HIV testing and counseling services

The results also revealed high level of willingness by stakeholders to undertake the HIV testing and counseling services. Most of them indicated that they were ready and willing to test and know their HIV status if they had the opportunity.

“The fact of the matter is that though some of us have done the test before however if we still get the opportunity we will test, even if I get the opportunity right now, I will go and test” (FGD-women-Kajelo).

“I said if you people can, like if you are having the test we the youth would come and test. We will do it because I don’t think there is someone who do not want to know his/her status” (FGD-men-Vunania)

“I have done the test before and if I get the opportunity again, I would still do it” (IDI-45 year old men group leader-Vunania).

However, some participants said they were not ready to test for HIV. For them they believed that they did not have the disease. Others also were of the view that they would only go for the test on condition that they would not spend much time at the health facility and if they would also not be asked to pay for the services.

“Personally, I’m willing to do the test on condition that I will not pay any money for it and if I will not also travel long distance to access the services. You know going there and having to spend two or three hours we cannot accept that, so I think that if lesser time is spent at the facility to receive the service, then people will be willing to go for the test” (FGD-men-Kajelo)

“I don’t feel I have the disease (HIV), so I will not like to test and I am not there with any man so I don’t think that it is necessary to test” (IDI-44 year old women group leader-Vunanai)

4.12 Factors affecting uptake of HIV testing and counseling services

Health system, community and individual level factors were the three broad factors identified to be responsible for the low uptake of HIV testing and counseling services in this study and are discussed below:

4.12.1 Health system factors

4.12.1.1 Uncertainty of test results

Inconsistency and improper interpretation of results affected HIV testing and counseling services according to study participants. Inappropriate interpretation of results to classify someone as HIV positive and negligence of health workers where they could exchange somebody's results for another person and mistakenly tagged him/her as HIV positive was reported by study participants as responsible for low uptake of HIV testing and counseling services. Stakeholders were very worried about this phenomenon and therefore expressed their dissatisfaction about it. They perceived that these uncertainties negatively influenced trust and thereby contributed greatly to the low patronage of HIV testing in the study area. With examples, stakeholders presented their views this way in the following quotes:

“because of what I heard is that when the people are many they will mention your name and write and sometimes they can exchange someone's results for you. So sometimes when you are many the way they are going to arrange the names they get confuse and mix the names” (FGD-women-Vunania)

“I want to plead with the nurses in the various facilities to try and stop begrudging with people because sometimes these nurses can just decide to tarnish somebody's image by tagging the person as being HIV positive especially if there is some misunderstanding between them (nurses) and the person. But sometimes you would realize the rumor being peddled about the person is not true but the fact that it is a nurse or doctor who has done the test and says the person's HIV status is positive, then it is obvious that many people would believe the news. I know so many people who have suffered that stigma meanwhile they were never HIV positive” (FGD-men-Kajelo).

“We have heard that there are people who went somewhere and they said they have and they went other places to test and they said they didn’t have. So for me, the inconsistency of the results is something that is affecting this whole thing of testing for HIV/AIDS” (IDI-56 year old elder-Vunania).

4.12.1.2 The issue of privacy

Lack of privacy at the health facility where people could comfortably sit and do the test was also mentioned by some of the study participants. They particularly complained about situations where other community members seeing you at the health facility doing the test could put their own interpretations and labeled you as HIV positive even though it may not be the case. This situation according to study participants made some people to spend money traveling to other places to get tested instead of doing it at a health facility located in their own community. Known faces working at the clinic also prevented people from going to do the test. These issues came up very strongly in both the FGDs and IDIs by community members and health workers.

“There is no privacy at the clinic and so it is not conducive to go for the test. The reason is that when you test and it’s positive, the information will even reach the community before the infected person gets home. People will discriminate against that person to the extent that people will not want to come close to him/her” (FGD-women-Vunania)

“In the health facility where most of the testing and counseling centers are, where they are situated like anyone coming, the center should be situated in a place so that any person who walks in will not know that that is where the person is going to, but if you just go and put the center in a place and then you label it HIV/AIDS then nobody will come there and test because it will deter people from coming for the service” (IDI-35 year old health worker).

“Though HIV testing is good but the challenge here is that sometimes you can visit the community clinic with the aim of doing the test, sometimes we do meet some known faces who are with the nurses and the moment you tell the nurse that you are coming to check your HIV status, at the end of the day whether you test negative or positive, the next moment your name is all over the community and you are being labelled as HIV positive person. This alone tells you that there is no privacy when it comes to accessing the

service and for that matter most community members have stopped going to the clinic for HIV test” (FGD-Men-Kajelo).

“I think privacy is also a factor because someone will say if I go and enter that room and people see me they will say that I have AIDS, so they will not even go there” (IDI- men youth group leader-Vunania).

4.12.1.3 Unavailability of HIV testing services

The study also revealed unavailability of HIV testing kits/ services at the health facility level as one other factor affecting the uptake of HIV testing in the study area. Participants held the view that there were some instances where people went to the health facility to do the test, which was not possible because the materials were not available. Some participants also reported the absence of nurses at the health facility as another factor contributing to low uptake of HIV testing.

“...non-availability of test kits affects HIV testing. For instance those from far places coming to the clinics might not come again if they are unable to undertake the test at the end of the day because of unavailability of the test kits”(FGD-women-Vunania)

“I think the other reason why we do not go for the services is that the nurses in charge are not stable, sometimes you go there and will not meet them and when it happens like that you feel reluctant to go again” (FGD-men-Kajelo)

“Is also a reason because when you go there and that things they use to test are not there and they won’t tell you that it’s not there, they will say you should go and come. Sometimes too, you will go to the clinic and the nurses are not there to do the test for you and that is also another problem” (IDI-34 year old men group leader-Vunania)

The health workers also reported unavailability of materials at the health facilities to carry out the test for persons who wanted to know their status as a one factor affecting HIV testing and counseling services. They acknowledged their inability to offer the services to people because materials such as testing kits were not available for them to use for the exercise.

“Here we always have a challenge with the materials that we use like the test kits that we use. So sometimes people will come and we are unable to provide the services because

we do not have the necessary materials such as the testing kits to use” (IDI-27 year old Community Health Nurse-kajelo).

4.12.1.4 The issue of confidentiality and health workers attitude

Stakeholders attributed the low uptake of HIV testing and counseling services to the unethical or unprofessional conduct of some health workers which discouraged people from going for the test. Health workers were reported to be verbally abusive and as a result people did not find it pleasant to have such issues with them because they wanted to know their HIV status. They observed that the unpleasant attitude and lack of respect by some nurses and their inability to keep to the ethics of the profession significantly contributed to the low uptake of HIV testing and counseling services in the area.

They also observed that confidentiality on the part of some health workers was very poor. According to them, health workers who were supposed to know better to protect people who were tested positive were rather the ones going around revealing or spreading the news about the status of people to other community members. Stakeholders found this attitude of health workers very unfortunate. The fear of some health workers to disclose HIV status of people was reported by most of the participants as one factor affecting HIV testing services.

The health workers at the community clinic are our own people and the moment they get to know that you are HIV positive, they will spread the news all over....”(FGD-men-Kajelo).

“The worrying aspect of it is that the community health nurses who work at the clinic come from this community so if you go there and the results is positive, the information will even reach home before you yourself get back, it will spread all over the community” (IDI-45 year old women group leader-Vunania)

“We also have nurses working in our smaller clinics who we know have gone through some training and should have known the ethics of their work but unfortunately some of these nurses are incapable of keeping secretsThe truth of the matter is that as a nurse you are not supposed to tell even your husband or wife or any relative of yours about someone’s HIV status because you took an oath not to disclose peoples health status to others but some nurses are rather using the profession as an advantage to disclose peoples status and make mockery of them”(IDI-35 year old men group leader leader-Kajelo).

Some of the health workers have problems when you even go to test the way he/she will shout on you, you will panic. It makes you feel not like going there again because when you remember the last time the way he/she shouted at you, you would not go. So for me lack of respect on the part of some of the nurses is the problem (FGD-women-Vunania)

The inability of health workers to keep secret was confirmed by health workers who also were interviewed. This they said prevented people from coming to the health facility to test for HIV.

Attitude of health workers too is part of the problem but mostly it is the confidentiality that is the problem. Also, most people also know the health workers they find it difficult to come and test because if they know that if I come and do the test this nurse may tell other people and you will have some guilt and when you see the person you will be guilty and that one too affect the testing (IDI-35 year old health worker)

4.12.2 Community/ social factors

4.12.2.1 Discrimination and stigmatization

Most of the stakeholders reported discrimination and social isolation as responsible for low uptake of HIV testing in the study area. They added that people feared to go for the test because if it was known to other community members that you were HIV positive, they would discriminate against you at the community level. They held a strong view that the stigma was unbearable for HIV positive people and that really affected patronage of HIV testing and counseling services. They perceived that the stigma for HIV positive people was so much that some people could lose their life in the process and that was the reason why people preferred not

to test and know their HIV status. The issue of stigmatization and discrimination was mentioned by both community members and health workers. The following quotes convey the main points raised by stakeholder on stigmatization of HIV patients:

“It’s about the perception of the disease, the stigma attached to the disease in the community and people actually don’t want any other person to know their status because of the stigmatization and discrimination against people who are living with the disease. So because of that it is just some few people who come for the counseling and testing” (IDI-27 year old community health nurse)

“You see in this community as we are gathered here and chatting and assuming you have gone to do the test and it is positive and if unfortunately on your part the information leaks, believe me you will not enjoy the company of this group again because whenever they see you coming to them somebody can just say aaah look at this AIDS patient, you will now be a laughing stalk in this community. The stigma is so huge that if you are not a strong hearted person then you can’t survive it and I know it is the reason why members of this community don’t patronize the services” (FGD-women-Kajelo).

“What he said is true especially among we the youth, You know when people hear that you are HIV positive, they conclude that you got it through sexual intercourse and that is where they will now start victimizing all those people whom you have had an affair with and conclude that they too are positive” (GFD-men-vunania)

“We fear finger pointing where others are pointing fingers at you and treating you unfairly because you are tagged as being HIV positive and the perception that HIV is a bad disease. As for this community the moment information reaches them that you are an HIV victim, the way they would handle you like a bush animal, you will not like food. Your friends will turn to neglect you” (IDI-56 year old elder-Vunania)

4.12.2.2 Gender inequality

The study showed that gender inequality was another factor affecting HIV testing services. This issue was reported mostly by the female participants in this study. According to them, the dominance of men in certain societies and the right for men to take decisions within the family affected the uptake of HIV testing services of some women. This issue came up mostly when

participant were prompted during the interviews. They reported that though some women might want to go for the test but where approval was not given by the male partner, it was not possible for such a woman to access the services. They added that since the men were the bread winners, if he did not support the woman financially, it was not possible for the woman to go for the test.

M: Do you think the dominance of men and as heads of the families affect or prevent women from going for HIV test?

R: Yes it prevents us from carrying out the test. Because if my husband says I shouldn't go, I will not go (FGD-women-Kajelo).

R: It is there in this community because if it is the man who is supposed to give you money to go and he says he will not give you, then it will prevent you from doing the test. He can also say he doesn't want you to go for the test because he does not trust the results and that can also prevent you from going for the test (IDI-33 year old women youth group leader-Vunania).

Some participants however held the view that though gender inequality existed in the community, but they was never a situation where a woman wanted to go for HIV testing and counseling services and was prevented by her partner. They explained that it was supposed to be an agreement between the man and the woman and once that understanding had been established, the man would have no problem allowing the woman to go for the test.

"For gender inequality, it exists in this community...but I haven't seen instances where a woman is willing to test for HIV and her husband refuses, with that one I can't pin point at it" (IDI-45 year old women leader- Vunania).

"I wanted to say the same thing that she said, when you are going for the test you talk to your husband to reach an undestanding and both of you will either go and do the test or you the woman can go and do it alone, that is not a problem at all" (FGD-women-Kajelo)

4.12.3 Individual factors

4.12.3.1 Anxiety, personal effects and fear of losing partner

The findings of this study revealed personal effects, anxiety and fear of losing partner as responsible for low uptake of HIV testing services. Discussants held the view that people did not want to go and test for HIV because of the negative effects it might have on them if they were tested positive. They said such individuals would be worried to the extent that they might even die before their time or commit suicide.

There are some who are also scared they don't know what the outcome will be like and think if they go and test and it tends out that they have the disease, it will affect them negatively and they will not be happy for the rest of their life (IDI-56 year old elder-Vunania).

“Why there is anxiety is that some people if they know that they are positive and their heart is not strong they will die or you will kill yourself and some will cry to the point of dying so there is a lot anxiety” (FGD-men-Vunania)

“One problem is fear and that prevents the people from accessing the services. Majority of the people are still afraid because they are not certain whether they have the disease or not. They may have or may not have and because of that fear of uncertainty people don't want to go and test. What they have been saying is that, “all die be die” and because of that mindset the people prefer to stay without knowing their status because when you test and you are positive, it would make you think too much and even die early” (IDI-35 year old men youth group leader-Kajelo)

Interestingly, fear of losing partner was also reported in one of the group discussions with men as one factors affecting HIV testing services. As he put it:

“You know the other reason we usually try to hide our HIV status is that if other people are aware of your status then you will never find a girlfriend again. All the ladies will avoid you and there is nothing that is sweeter than love making with ladies. In this regard, I think it is better if you don't know your status” (FGD-men-Kajelo).

4.12.3.2 Time and distance to service point

Study participants reported waste of time and distance to the clinic as other individual level factors affecting patronage of HIV testing services. They observed that a lot of time was spent at the hospital just to have access to HIV testing services. According to them, the situation seriously discouraged people from going for the test. Others held the view that the distance from the community to the health facility was too far, which also discouraged interest and thereby contributed to low uptake of HIV testing services.

“There are usually many people at the clinic and because of that when you go you will spend so much time just to do HIV test. Also because the clinic is far, people do not want to go unless they are sick, to just get up and say you are going to do HIV test, they will not go” (FGD-women-Vunania)

“Just like my brother said the place is far and if you are not sick you will not just get up and say you are going to the hospital to do HIV test” (FGD-men-Vunania)

„The place (facility) is far, so if you don’t have means and you have to walk to that place, some people will not walk to that place just to do HIV test and come back, so because of that we don’t go” (IDI-44 year old women group leader-Vunania).

Health workers however disagreed with the issue of waste of time at the health facility just to access the services. They said it was just a mere perception people had and attributed it to lack of information about how the test is done at the health facility level.

Sometimes people think if you come to the health facility to do the test you have to queue for long before you are tested. This is ignorance because they don’t know much about it and they think (IDI-28 year old health worker).

4.12.3.3 Lack of awareness and financial problems

Few of the participants reported lack of awareness about the existence of the testing services and financial problems to have affected the patronage of HIV testing and counseling services. Health

worker also believed that there was low uptake of HIV testing and counseling services because some people were not aware about it. The following quotes extracted from the interviews captured the views of health workers on the issue:

“It is ignorance because they don’t even know that such services are available at the health facility and you do not need to pay before accessing the services but because they don’t know they will not come. So the problem is that the level of awareness on HIV testing is generally low” (IDI-29 year old health worker).

“What I have to say on this matter is that some people still don’t know they have to go and test for HIV. It seems so many people have even forgotten about AIDS and that is the issue” (FGD-women-Kajelo)

“What is also preventing is the money, if you go and the money is so much you cannot do the test. In this our community there are many poor people and there are so many things that are to be done with money and so for someone to say they are going to take twenty Ghana cedis (¢20.00) to do HIV test, it will be hard for people to do that”(IDI-35 year old men group leader-Kajelo)

“Another place where we can also access the service is the private clinics, there is privacy but the bigger problem is money because I learned the cost of HIV test is high which majority of us cannot afford” (FGD-men-Vunania).

With regards to the issue of financial problems as mentioned by community members, health workers had contrary view on the issue. They reported that HIV testing and counseling services were offered free to people at the public health facilities. They explained that some community members usually would visit private laboratories and requested for the services and such facilities, the services were not free. They however acknowledged the unavailability of testing material at the public health facilities made people to visit these private facilities for the test.

Some people go to the private laboratories and that place they will charge them. So it’s a problem since we don’t have them here sometimes we have a challenge with the clients. So people walk in here to do the test but because we don’t have the test kits we can’t run the test (IDI-28 year old health worker).

4.12.3.4 Personal attitude and Laziness

Individual attitude and laziness was also reported to have negative effect on the uptake of the HIV testing services. Participants perceived that some people did not care about their health and as a result they would not go and test and know their HIV status. They also attributed low patronage of HIV services to laziness on the part of some individuals.

“Most of the things that we do is our mindset and attitude because majority of the people are not willing to do the test and they don’t even care whether they have the disease or not and they are just spreading it. So such a bad attitude of people will make them not to go and test to know their HIV status” (IDI-33 year old women youth group leader-Vunania).

“I think it is laziness on the part of people because some of them feel reluctant to go and test. Some people think their health status is fine, and the fact that they are not sick, they don’t see the need to go for the test”(IDI-56 year old sub-chief-Kajelo).

4.13 Suggested ways to improve uptake of HIV testing and counseling

Opinions of stakeholders were solicited on appropriate measures to help improve the uptake of HIV testing and counseling services. Though, various factors contributing to the low uptake of HIV testing and counseling services, study participants proposed various strategies to help improve the uptake of HIV testing services.

Most of the stakeholders called for effective educational campaign strategies to help improve the uptake of HIV testing. Participants made the following recommendations to help increased the utilization of HIV testing and counseling services: Strengthen HIV counseling strategies, carry out media discussions and radio announcements in order to create awareness, which could boost interest of people to go for the test and film and drama shows at the community level to help reduce stigma and discrimination against HIV positive patients. Community level meetings, durbars and one on one educational campaign strategies were also suggested by study

participants to help create awareness of HIV testing services. The following excerpts from the interviews present the views of stakeholders on measures to improve the uptake of HIV testing:

“Efforts should be focused more on HIV education because if there is regular education about the disease it will help the people to better understand the consequences and the need for the test, if they are well educated about the disease, then they will understand and now feel comfortable to go for the test” (FGD-men Kajelo)

“what I also have to say is that the guidance and counseling is not enough and so they should intensify it in order to encourage people to go and test” (FGD-men-Vunania)

“In my opinion just like the interaction that is currently ongoing between you and I in a way should continue because as you go about interacting with us, it reminds us that the disease is still in existence and when you continue like that for some time people will sit up and start to go and test”(IDI-56 year old elder-Kajelo)

“The media should also take this issue up because if the media continue to discuss issues concerning HIV, you know more people will hear about it and may understand and access the testing services. It would also be good if health workers could organize health talks concerning HIV and the need for people to go for the test, it will go a long way to increase the uptake of the service”(IDI-33 year old women youth group leader-Vunania)

While some of the participants were of the view that the amount of money charged per person in order to have access to the testing services should be reduced others felt that HIV testing services should be provided for free to enable many people to have the opportunity to test and know their status. Stakeholders also called for the health authorities to make HIV testing and counseling services compulsory for everybody. They held the view that this move would compel and encourage the uptake of HIV testing services.

“If the test is carried out for free of charge it will encourage people to go for the test, but if it involves money we can’t afford” (FGD-women-Vunania).

“Government of Ghana has made HIV Testing and counseling voluntary but I think it is time if we could make the test compulsory for all students and government workers. For instance, I am an assembly man and if I don’t agree to do the test but rather asking my community members to come and test, they will not be willing because as an assembly

man they would expect me to take that initiative first before they can immolate which I think is very important for leaders to be doing for our followers to learn from us” (FGD-men-Kajelo)

Study participants suggested for the services to be made available at the community level, which for them would make it more convenient for people to access the services. They held the view that when people were motivated it could encourage them to go for the test. Packages such as T-shirt among other things were recommended by study participants to be given to people who would opt for the test.

“If you come to our community to do the test, it will be much convenient because going to the clinic will be a bit of a challenge for people” (FGD-women-Vunania).

“If the nurses could organize and always come into the community to do the test for us, and motivate us, let’s say T-shirts or some chewing gum to those who are willing to do the test, trust me, the youth will come out in their numbers to test. I’m saying this based on what I witnessed at Nakolo when they were celebrating their school’s day and this team came to render HIV services free of charge with some motivations (T-shirts, chewing gum) and this made the youth to patronize the services” (FGD-men-Kajelo).

I think when they bring the services to the community level it will encourage people to test. People are feeling lazy to go and test at the facility but if they bring it to the person or the community it will motivate people to test. People will wake up and they feel their work is important so they are feeling lazy to go and test for HIV (IDI-56 year old elder-Vunania).

In terms of the behavior of health workers, most of the community members said that it was important for health workers to have patience and behave politely toward clients, especially people who volunteered to test for HIV in a manner that would encourage them to do so. They also appealed to health workers to try and stop disclosing HIV status of people to other community members. They said this would help to improve trust and thereby encourage people to go for the test. They had a strong belief that periodic transfer of nurses from one health

facility to the other could prevent them to make friends with community members where they could disclose health information of people to them. They perceived that the move could help reduce or prevent stigmatization and discrimination against HIV positive patients at the community level.

“The health workers should also come out and assure the general public of confidentiality of the HIV test results. They should endeavor to let the people know before and after the test that the results will be kept confidential and when this trust is established it will encourage more people to go for the test” (IDI-33 year old women youth group leader-Vunania)

“Those doing the test should always try and keep secrets. They shouldn't reveal HIV status of people just because they tested them and it is positive. When they do that people will not be encouraged to go and test and will even advice people not to go and do the test as well because the nurses cannot keep secrets” (FGD-men Vunania)

“The nurses must learn to be friendly and sociable to the people. When you are posted to come and work with people, you must bring yourself down to their level so that they can as well understand you but in a situation that you disrespect and disregard them then you cannot work with them. You must try to reduce yourself to their level and this will encourage people to go to them for some of these services” (IDI-54 year old elder-Kajelo).

Health workers also suggested various ways to help improve the uptake of HIV testing and counseling services. They also recommended the need for effective educational campaign to create awareness about the free HIV testing and counseling services at the public health facilities. They reiterated the need for community members to stop all forms of discrimination against HIV positive patients. They were of the opinion that when people were educated, it would help in that regard. According to health workers, continues availability materials such as the test kits at the health facility would help improve on the uptake of HIV testing. They also proposed that workshops be organized for health workers to improve on their knowledge and skills on HIV testing and counseling processes. They however, called on their colleague health

workers to desist from disclosing the status of people so as to encourage people to undertake HIV testing and counseling services.

There is no more campaign about the disease and that makes everybody to relax and people think the disease is no more in the system. So I think what we can do is to intensify the campaign in sensitizing the community members that the disease is still there and so they should try and come and test and know their status. And when the test comes out positive, you can still live your normal life with the disease peacefully (IDI 27 year old community health nurse)

Yeah, apart from that the test kits should be provided to all the facilities and if possible you can always get anybody who comes to do the testing you should have something like soap or any other thing, something small to compensate the person for coming, I think that one will motivate people to come and do it. Health workers should also try and stop revealing information of people who have been tested positive” (IDI 28 year old health worker).

CHAPTER FIVE

DISCUSSION

5.1 Introduction

This chapter discusses the findings of the study. The section starts by discussing knowledge about HIV and AIDS and HIV testing and counseling services, community trust and perceptions on HIV testing services, factors influencing testing and counseling services of HIV and suggested ways to improve utilization of HIV testing services. The findings of the study are also compared with earlier studies on what is known in the area.

5.2 Knowledge about HIV/AIDS

Knowledge of a disease is an important step towards reducing its burden. The level of knowledge about HIV and the behavior of individuals could influence their risk of acquiring the disease. More importantly, knowledge of one's HIV status is very critical because it helps to facilitate access to care and treatment of the disease early to prevent complications (Naing et al., 2010; WHO, 2002). The findings of this study revealed high knowledge about HIV and AIDS. This is consistent with earlier study conducted in Ghana among senior high school students where there was high knowledge on HIV/AIDS (Appiah-Agyekum & Suapim, 2013). Other studies in Malaysia and South Africa reported high level of knowledge about HIV/AIDS among study participants (Naing et al., 2010; Day, Miyamura, Grant, & Leeuw, 2010).

Also, the findings of this study showed that knowledge about the mode of HIV transmission is remarkably high among stakeholders. Most of the participants perceived sexual intercourse as the most common and major means by which HIV could be transmitted. Deep kissing, female genital mutilation practices, the use of infected objects such as blades and knives and mother to child transmission have also been found in this study as other ways through which HIV could be

transmitted from an infected person to someone who is not infected. Our results collaborate with earlier findings conducted in Ghana where it was established that senior high school girls had high knowledge on the nature, modes of transmission and prevention of HIV/AIDS (Appiah-Agyekum & Suapim, 2013). In that study, 96.7% and 83.3% of respondents mentioned unprotected sex and blood transfusion as possible ways by which HIV/AIDS could be transmitted. The study further reported that the HIV/AIDS could be transmitted through bodily fluids such as blood, semen and breast milk (Appiah-Agyekum & Suapim, 2013). Another study in Ghana that assessed knowledge of HIV/AIDS and uptake of HIV testing and counseling services among undergraduate students revealed high knowledge and awareness of HIV/AIDS (Asante, 2013). However, there was a significant difference in knowledge of HIV by gender where females had high knowledge of the disease than males (Asante, 2013). Also, in Malaysia, about 81% and 75% of the respondents mentioned sharing of needles and maternal child transmission as ways through which the disease could be spread quickly (Naing *et al.*, 2010). However, the use of infected toothbrush and sponge has been identified in the findings of this study as other means through which one could be infected with HIV. These factors have not been reported in the literature.

It is however shown that very few people have basic knowledge about HIV as demonstrated in earlier studies conducted in Ghana and Botswana (Appiah-Agyekum & Suapim, 2013; Ama, Shaibu, & Ama, 2015). In addition, the depth of knowledge of HIV testing and counseling vary among different social groups in the population. A study in Ghana found significant difference in knowledge of HIV/AIDS by gender, age and marital status. The study established that female students had more knowledge about the disease than males (Oppong, 2013). The study further

found significant differences in HIV/AIDS knowledge by age groups and marital status (Oppong, 2013). However, these differences in knowledge about the HIV/AIDS have not been established in the findings of this study.

The results of this study revealed high knowledge on ways to prevent HIV. Stakeholders in this study highlighted various way to help prevent or reduce the transmission of the disease. Being faithful, having one sexual partner and the use of condom during sexual intercourse are among the preventive methods suggested by stakeholder to help prevent the spread of HIV. Though several studies have reported high knowledge of HIV, it is expected that the rate of infection among the general population over the years should have reduced; unfortunately, this is not the case, which seems to suggest that knowledge of HIV and how to prevent the disease does not necessarily translate into practice (Orisakwe, Ross, & Ocholla, 2012). In sub-Saharan Africa, the prevalence of HIV is still high in the general population (UNAIDS, 2017). Ghana is experiencing a generalized HIV epidemic with a prevalence of 2.0% (GSS, 2015). Again, the HIV Sentinel Survey (HSS) conducted in Ghana identified regional variation in HIV infection with the highest prevalence in Greater Accra (3.2%) and 2.7% in Ashanti Region respectively (GHS, 2016). This means that more efforts need to be put in place to help address the situation. Though earlier studies revealed high knowledge on methods to prevent HIV, there is the need for people to be educated on various ways to protect themselves from being infected with the disease. This strategy will help reduce the spread of the disease within the general population (Yeap et al., 2010).

Quite apart from that there is the need for proper disposal of used objects such as blades, knives and needles to prevent other people from being infected with the disease for using these objects. There is no cure for HIV, the disease is only managed by antiretroviral drugs that are taken by patients to slow down infections that could be life threatening to individuals who are HIV positive (WHO, 2014; Sasame, 2008). This has also been demonstrated by stakeholders as shown in the finding of this study. However, few stakeholders in this study have the view that HIV could be managed by local treatment.

5.3 Knowledge on and awareness of HIV testing and counseling services

The interpretation of our data showed high knowledge on HIV testing and counseling services by most of the participants. This research supports findings in a study conducted to explore level of knowledge and use of VTC among older adults where 96% of respondents reported to have been aware of HIV testing services (Ama, Shaibu, & Ama, 2015). In this study, stakeholders mentioned health workers, radio announcements and community durbars as the main sources of their information for HIV testing and counseling services. Nonetheless, there are still people who are not aware of the existence of HIV testing services. Some people are aware that the service is only offered to pregnant women as demonstrated in the findings of this study. Knowledge on HIV testing and counseling vary among different social groups in the population as demonstrated by earlier studies where knowledge about HIV testing and counseling services has been very poor (Holla et al, 2016; Ama, Shaibu, & Ama, 2015).

Nonetheless, views solicited from stakeholders in our study suggest that most people are aware of the availability of HIV testing and counseling services at both public and private health

facilities. Few participants also perceived that the services are being offered at the community level mostly by private organizations.

5.4 Trust and perceptions about HIV testing and counseling services

Perception is a constructive process which entails that people make inferences about what they see and make the best guess of what the object is all about (Resinga & Davhan-Maselesele, 2017). It therefore suggests that individual perception of the benefits of VCT impacts on their willingness to accept testing for HIV (Orisakwe, Ochiogu, & Ocholla, 2015). Overall, the perception of stakeholder on HIV testing and counseling services in the study has been good. The general view of participants about HIV testing is that it is necessary and very useful. They held the opinion that it is important for people to test and know their status and where one is tested positive, appropriate measures, support and care will be given to you by health workers. Our results collaborate with findings by Jesus and colleague where it is reported that respondents had more favorable views towards HIV testing (Jesus, Carrete, Maine, & Nalls, 2015).

Trust is a state of mind that allows an individual to voluntarily make him/herself vulnerable to the other person irrespective of whether the risks may be positive or negative (Delhey & Newton, 2003). Trust involves a prediction of a likely behaviour of an individual (Good, 2000). Trust in medical sense is described as the expectation of the patient that physicians act in a manner that keeps the patient's best interest as a priority (Graham et al., 2010). The study results show low trust on HIV testing and counseling services by community members. This is largely as a result of inconsistency and wrong interpretation of results by health workers. This development according to study participants affects their level of trust on HIV testing and counseling services.

Lack of confidentiality on the part of health workers also affects trust and confidence of people and this invariably affect the uptake of HIV testing and counseling services. It is reported that though 90% of respondents had high knowledge of HIV, yet only 71.5% tested for HIV (Orisakwe, Ross, & Ocholla, 2012). Surprisingly, some stakeholders in this study held the view that blood samples are drawn from people and sold in the name of HIV test. This perception by people in this study affects their level of trust on HIV testing and counseling services.

5.5 Utilization of HIV testing services

Though, the level of trust on HIV testing and counseling services is low according to the findings of this study, there is however high uptake of the services by study participants. Majority of them have ever tested for HIV especially the female participants who indicated to have done the test during pregnancy. As stated in the conceptual framework of this study, higher level of knowledge and awareness on HIV testing and counseling services could improve the uptake of the HIV testing services. Since the findings of this study revealed high knowledge and awareness about HIV testing services by participants, it is not therefore surprising that most of them reported to have ever tested for HIV. Nonetheless, some participants reported that they have never tested for HIV in their life. The study also revealed high level of willingness by stakeholders to undertake the test. The reason for high willingness among study participants is that they believe it is better to test and know their HIV status. A study conducted in Tanzania reported 41.7% willingness of respondents to accept voluntary testing and counseling services (dePaoli, Manongi, & Klepp, 2010). Most of the participants in this study also said if they get the opportunity, they will test. An interesting finding of this study is that both health workers and community members perceived HIV in recent times as among other common diseases such as

malaria, diarrhoea, hepatitis B and cancer. This probably could be the reason why most people in this study have gone for the test.

Interestingly, some of the participants said they are not ready to test for HIV with the belief that they are not at risk and they think they don't even have the disease as demonstrated in the conceptual framework that where people perceived low risk of being infected with the disease, they are more likely not to go for the test. The study result supports the findings of earlier studies where study participants refused to test for HIV because they felt that they were not at risk of getting the disease. Perceived risk of HIV infection is an important driving factor affecting uptake of HIV testing and counseling services (Orisakwe, Ross, & Ocholla, 2012; Day, Miyamura, Grant, & Leeuw, 2010).

5.6 Factors affecting uptake of HIV testing and counseling services

Voluntary testing and counseling for HIV has been advocated as one of the effective strategies for preventing the spread of HIV (Sanga, Kapanda, Msuya, & Mwangi, 2015). It is recommended that Voluntary Testing for HIV should be made available for people to test and know their status (WHO, 2012). HIV testing is an effective tool for AIDS prevention and control (WHO, 2012). It is therefore important for people to test and know their status in order to help managed the condition and to live a decent life (WHO, 2002). There is a policy in Ghana for free or subsidized HIV testing and counseling services. Therefore, efforts have been made to improve equity in the distribution of HIV testing services to all public health facilities in Ghana in order to increase availability of the service. Despite these efforts, the utilization of HIV testing services remains generally low (GAC, 2012). Several obstacles accounted for low uptake of HIV testing

and counseling services in many countries especially in the developing countries such as Ghana (Evangeli, Pady, & Wroe, 2016).

Health system, community/social and individual level factors have been identified broadly as responsible for the low uptake of HIV testing and counseling services in this study and are discussed below:

5.6.1 Health system factors

Uncertainty of test result has been widely reported as one health system factor affecting the patronage of HIV testing in this study. It is observed that inconsistency and inappropriate interpretation affect the uptake of HIV testing as pointed out in the framework of the study. In addition, the negligence of health workers where they could exchange somebody's results for another person and mistakenly tagged him/her as HIV positive is also reported by stakeholders as worrying. Study participants are not happy about this development and as a result some community members prefer not to even go for the test. Earlier studies also reported mistrust and doubt about HIV diagnosis as responsible for low utilization of HIV testing services (Kimani-Murage, Manderson, Norris, & Kahn, 2013; Wright, Stewart, Curran, & Booth, 2013).

Again, as demonstrated in the framework, the findings revealed lack of privacy at the health facility level to have significant effect on the willingness of people to test for HIV. Participants complain about situations where other community members seeing you at the health facility either doing the test or not could put their own interpretations and labeled you as HIV positive. This phenomenon largely scares people from going to test. This is consistent with a study

conducted by Wright and colleagues where it was reported that lack of privacy affected uptake of HIV testing services (Wright, Stewart, Curran, & Booth, 2013). It has also been established that violation of privacy and rights affect HIV testing services (Hu *et al.*, 2013).

Closely related to lack of privacy is unavailability of HIV testing kits couple with absence of nurses at the health facility also negatively affect the uptake of HIV testing in the area. The views of study participants suggest that there are occasions where people visited the health facility just to be told that the materials are not available. Health workers in this study confirmed that the issue of unavailability of materials makes it difficult to provide the HIV testing services to clients at the health facility as demonstrated in the literature. Also, workload, and frequent staff turnover have been reported as health system barriers affecting access and use of HIV testing services (Jaiantilal, Gutin, Cummings, Mbofana, & Rose, 2015).

The unpleasant demeanor and lack of respect by some health worker towards clients has been extensively discussed by stakeholders in this study as a major factor affecting not only HIV testing and counseling services but access to other health services as demonstrated in the conceptual framework of the study (Ekirapa *et al.*, 2008; Kwapong, Boateng, Agyei-Baffour, & Addy, 2014). Participants complain about lack of confidentiality on the part of some health workers who provide HIV testing services at the health facility level. Stakeholders are not happy about the way some health workers reveal information about HIV status of people to other community members. As indicated in the framework, unethical conduct of health workers couple with their inability to keep secrets significantly affects the uptake of HIV testing services in the study area. Poor relationship of health staff towards clients and issues of confidentiality and trust

have been reported in other studies as stumbling blocks to implementation and uptake of HIV testing and counseling services (Kwapong, Boateng, Agyei-Baffour, & Addy, 2014). It is not therefore surprising that some of the participants in this study express their unwillingness to go for the test. Since they do not want their HIV status to be known to other people couple with the unfavorable encounters with health workers, they do not see it necessary to go for the test. The unprofessional nature of health workers has generally been described by study participants as poor and unacceptable.

The interpretation one could attach to the unfriendly conduct of health professionals towards patients could perhaps be as a result of the workload. In the process, when they are tired; they could be offended with any little issue especially from their clients. There is the need for health workers to control their emotions and try to have patience in their dealings with their clients including people who volunteering come to the facility to test for HIV. This could go a long way to encourage more people to opt for the test thereby, helping to increase the uptake of HIV testing and counseling services in Ghana. This is consistent with findings in a study that revealed that confidentiality and improved health worker client relationship could enhance patronage of HIV testing services (Kwapong, Boateng, Agyei-Baffour, & Addy, 2014).

5.6.2 Community/social level factors

It is worth noting that gender inequality, stigmatization and discrimination have been described widely as community level factors affecting access and utilization of HIV testing services. Stakeholders held a strong view that the stigma for people living with HIV and AIDS is unbearable. They believed that stigma and discrimination against HIV positive patients could

lead people to commit suicide if they are not able to endure the stigma. The issue of stigmatization and discrimination was mentioned by both community members and health workers in the study as a serious factor that affects the uptake of HIV testing and counseling service as indicated in the framework. Our results collaborate with findings from other studies that demonstrated that fear of stigma and discrimination such as rejection, divorce and abandonment for HIV positive patients by their partners, families and communities affected uptake of HIV testing services (Jaiantilal, Gutin, Cummings, Mbofana, & Rose, 2015; Ama, Shaibu, & Ama, 2015; Kwapong, Boateng, Agyei-Baffour, & Addy, 2014)

It is found that the uptake of VTC services among women depended largely on the involvement of their partners (dePaoli, Manongi, & Klepp, 2010). This study however found varied views among study participants on the issue. While some of the participants viewed gender inequality to have negative impact on HIV testing and counseling services others said though gender inequality existed in their communities, it is not an issue that affects HIV testing and counseling services in the study area.

5.6.3 Individual factors

As pointed out in the framework, anxiety, personal effects and fear of losing partner negatively affect the uptake of HIV testing services, which has been confirmed in the findings of this study. Some community members do not want to test for HIV because of the negative personal effects if one happens to be tested positive. This also collaborates with study findings in Mozambique where it is reported that fear of being tested HIV positive affected HIV testing and counseling services (Jaiantilal, Gutin, Cummings, Mbofana, & Rose, 2015). A study identified fear and its

potential consequences on the person's life as barriers to voluntary testing for HIV (Day, Miyamura, Grant, & Leeuw, 2010). Also, in Botswana, it was established that the main barrier affecting HIV testing was fear of testing positive (10.9%) (Ama, Shaibu, & Ama, 2015). The findings of this study showed that people are not confident and therefore are not able to contain with positive results and would therefore prefer not to go for the test as reported in other studies in China and South Africa (Zhou, Guo, Fan, Tian, & Zhou, 2009; Orisakwe, Ochiogu, & Ocholla, 2015).

There is lack of awareness about the existence of HIV testing and counseling services by some people. It is revealed that most (98%) of respondents mentioned lack of awareness as barrier to HIV testing and counseling services (Matseke, Peltzer, & Mohlabane, 2016). It is not surprising therefore that this issue came up in this study as one of the individual level barrier affecting HIV testing. However, stakeholders in our study had high knowledge on HIV testing services and as a results, most of them reported to have ever tested for HIV. Closely related to this is the issue of time spent at the health facility to access the services and distance to health facility, which have also been extensively discussed in this study as responding for low patronage of HIV testing and counseling services (Jaiantilal, Gutin, Cummings, Mbofana, & Rose, 2015). People have the belief that once they are not sick, they see no reason to go and spend much time at the health facility just to test to know their HIV status as indicated in the framework. Though health workers in this study disagreed with the issue of waste of time at the health facility to access HIV testing services and describes it as mere perceptions, time constraints and long queues have been reported in earlier studies to have had negative effect on utilization of HIV testing services (Jaiantilal, Gutin, Cummings, Mbofana, & Rose, 2015; Yeap *et al.*, 2010).

5.7 Suggested ways to improve the uptake of HIV testing services

Though, various factors have been reported to have significant influence on the uptake of HIV testing and counseling services, study participants proposed various strategies to help improve utilization of the services. Effective educational campaign strategies such as media discussions, radio announcements will help create awareness and also promote interest of people on HIV testing and counseling services in Ghana. It is revealed that improved public knowledge about HIV testing could increase the uptake of the service (Yeap *et al.*, 2010). The results of this study also suggest that film and drama shows at the community level will help reduce stigma and discrimination against HIV positive patients. Furthermore, community level meetings, durbars and one on one educational campaign strategies have also been recommended by stakeholders to help create awareness of HIV testing services. In addition, door-to-door advocacy of HIV testing services has been found to be very effective and desirable way of creating awareness of HIV testing and counseling services (Ama, Shaibu, & Ama, 2015). Availability of the service at the community level to make it more convenient for people to access the services has also been recommended. This is largely so because people do not want to travel for longer distance just to access HIV testing services as described in this study as one of the factors affecting interest and patronage of the HIV testing services.

5.8 Study limitations

This is a cross-sectional study using qualitative approach, and therefore has the limitations associated with cross-sectional study designs. Another limitation is that since the study used purposive sampling, a non-probability sampling method, the views expressed by study participants are their personal opinions and may not necessary represent the views of the larger population; therefore the results will not be generalized.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1 Summary of findings

The study used qualitative method to assess community perceptions on HIV testing and counseling services in the Kassena-Nankana East and West Districts. The study points to the following key issues:

1. The study results revealed high knowledge about HIV and AIDS. There was also high knowledge on the mode of transmission and how to prevent the disease. Most participants mentioned sexual intercourse as major and most common means by which the disease could be transmitted. Also, being faithful and the use of condom during sexual intercourse were highlighted by study participants as ways to prevent the spread of the disease.
2. Overall, the perception of stakeholder on HIV testing and counselling services in the study has been good. Stakeholders viewed HIV testing as necessary because it allows appropriate care and treatment to commence early for HIV positive patients.
3. The results however showed low trust on HIV testing and counselling services. This is largely as a result of inconsistency and inappropriate interpretation of test results and lack of confidentiality on the part of health workers.
4. Factors such as lack of awareness, stigmatization and discrimination, lack of confidentiality and unethical conduct of some health workers affected the uptake of HIV testing services.

6.2 Conclusion

Based on the interpretation of the data, there are key factors responsible for the low uptake of HIV testing and counseling services. Factors such as lack of awareness, stigmatization and discrimination against HIV positive patients, personal effects, lack of confidentiality, lack of privacy and unethical conduct of some health workers towards clients at the health facilities have been described largely as responsible for the low uptake of HIV testing and counseling services. Other factors such as time spent to access the services and unavailability materials such as testing kits at the public health facilities also affect access and utilization of the services.

Despite the fact that some level of health education has been given to create awareness on availability of the HIV testing services, there is a need for more education to be done to increase knowledge of people about the availability of HIV testing services. It is therefore, recommended that intensive and continued education should be incorporated into the routine health care activities focusing on availability of the services, the need for health workers to keep to the ethics of the profession and more importantly the need for community members to stop discriminating against HIV patients. Lastly, the materials used for the test should be provided to enable interested person to have access to testing services. If possible, a different consultation room should be created only for the purpose of HIV testing and counseling activities at the health facilities to solve the issue of privacy. This will encourage patronage and thereby improve uptake of HIV testing services in Ghana.

6.3 Recommendations

1. In order to help address the health system factors affecting HIV testing and counselling services, there is the need for workshops to be organized by Ghana Health Service for health workers focusing on confidentiality and unethical behaviour of some health workers and the need for them to ensure confidentiality of health information especially, people who otherwise would have tested to be HIV positive. This will encourage more people to go for HIV testing and counselling services.
2. If possible, separate places should be demarcated at the health facility mainly for HIV testing and counselling services to help solve the issue of privacy at the health facility.
3. To help address the community/social and individual level factors, intensive health education should be organized by health workers for community members and other stakeholders:
 - a. To create awareness about the free HIV testing and counseling services at the public health facilities.
 - b. On the need for everybody to test and know their HIV status to enable them have access to care and treatment.
 - c. The need for community members to stop discriminating against HIV positive patients.

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APPENDICES

Appendix A: Interview Guide for community members

Background information

Age

Education

Religion

Occupation

Knowledge & source of information on HIV testing services

1. What are the deadly diseases that affect the health of people in this community?
2. What do you know about HIV/AIDS? **Probe for participants' knowledge on:**
 - a. Mode of transmission
 - b. Preventive methods
 - c. Treatment/ how to manage the disease
3. Are you aware of HIV testing and counselling services available for people?
4. What do you know about it? **Probe on:**
 - a. Methods of testing (*What is used for the testing*)
 - b. How testing services are provided (*free or it is paid for*)
 - c. Source of information for HIV testing services
5. Where can you/people get access to HIV testing and counselling services? **Probe for:**
 - a. Availability of testing services in the community

Perceptions and utilization of services

6. What is your individual views concerning testing and counselling for HIV?
7. What are the general perceptions of people in this community concerning HIV testing and counselling services? **Probe on:**
 - a. Level of trust on the services by community members
 - b. Based on what you have said, are people still willing to test for HIV in this community? Reason why
8. Have you ever tested for HIV? **Why & why not?**

9. Are you willing to test for HIV if you get the opportunity? **Why & why not**

Barriers to HIV testing services

10. What are the general factors or barriers that prevent people from getting access to HIV testing and counselling services in this community? (Get participants to mention and explain as many barriers as possible)

Then probe for:

- a. Health system factors (lack of funding & availability of service, confidentiality, attitude of health workers, wrong interpretation of results **any other**)
- b. Socio-cultural & community factors (cultural beliefs, gender inequality, discrimination **any other**)
- c. Individual level factors (lack of awareness, uncertainty or lack of trust on test results, stigma, location/privacy, perceived risks, religious beliefs, individual attitude, **any other**)

Suggested ways to improve patronage of HIV testing counseling services

11. What do you think could be done to encourage people to test and know their HIV status? Get participants to mention many possible ways to get people to patronize HIV testing & counselling services?

Also probe for (health system, community and individual level solutions)

12. What else do you have to say concerning this discussion and also on HIV testing and counselling services?

Thank you all for you time and contribution to the discussion!!!

Appendix B: Interview Guide for health providers

Background information

Age

Profession

Religion

Knowledge & source of information on HIV testing services

1. Can you please educate me about the deadly disease HIV/AIDS? **Probe for:**
 - a. Mode of transmission
 - b. Preventive methods
 - c. Treatment/ how to manage the disease
2. As a health professional, can you also educate me on the HIV testing and counselling program in Ghana? **Probe for:**
 - a. The rationale for the program
 - b. How program is being carried out within GHS & at the various health facilities
 - c. Interval of testing (*how long it will take somebody to test again*)
3. What is your opinion on availability of HIV testing and services in this health facility?
Probe on:
 - a. Methods of testing
 - b. Cost of testing
4. What do you also have to say concerning availability of HIV testing services at the community level?
5. How can somebody who is willing to test and know his/her status get access to the services in the area?

Perceptions and utilization of services

6. As a health professional, what is your opinion regarding testing for HIV/AIDS?
7. What are the general perceptions of people in this community/catchment area regarding HIV testing and counselling services? **Probe:**
 - a. Are people willing to test and know their HIV status? **Why & why not**

Barriers to HIV testing and counseling services

8. What are the general factors or barriers that prevent people from accessing HIV testing and counselling services? Get participants to mention and explain as many barriers as possible.

Then probe for:

- d. Health system factors (funding/ availability of service, confidentiality, attitude of health workers, **any other**)
- e. Socio-cultural & community factors (cultural beliefs, gender inequality, discrimination **any other**)
- f. Individual level factors (Knowledge/awareness, uncertainty or lack of trust on test results, stigma, location/privacy, perceived risks, religious beliefs **any other**)

Suggested ways to improve patronage of HIV testing counseling services

9. What do you think could be done to encourage people to patronize HIV testing and counselling services? Probe for many examples on the possible ways to get people to patronize HIV testing & counselling services?

Also probe for (Health system, community & individual level solutions)

10. What else do you have to say concerning HIV testing and counselling services?

Thank you all for you time and contribution to the discussion!!!

Appendix C: Consent Form
SCHOOL OF PUBLIC HEALTH,
COLLEGE OF HEALTH SCIENCES
UNIVERSITY OF GHANA,
LEGON.

TITLE OF STUDY: Perceptions about HIV testing and counseling services in the Kassena-Nankana districts of Northern Ghana

Purpose of Study: We are inviting you to take part in a study, which is being conducted by the School of Public Health, University of Ghana, Legon. The rationale of the study is to assess community perceptions on HIV testing and counseling services in the Kasena-Nankana Districts of Northern Ghana. A sample of community members and health providers in the two districts were selected and you happened to be selected to participate in the study. We hope that the results of this study will be used to inform the district directorates of health in the two districts, Ghana health service and Ghana Aids Commission on the best ways to improve patronage of HIV testing and counseling services in Ghana. This study is part of the requirements for an award of a Master of Science Degree and it is being funded by the student who is the lead investigator.

Procedures: If you agree to take part in this study, a trained fieldworker will have a short discussion with you. The discussion will be about forty minutes long and you will be asked questions to share your views on HIV testing and counseling services. You can choose not to answer any question you do not want to answer.

Risks and discomforts: You will not be exposed to any physical danger or harm when you take part in this study apart from your time that you will spend answering the questions.

Benefits: Your participation in this study will help inform the district health directorates, Ghana health service and Ghana Aids Commission on factors influencing HIV testing and counseling

services. Even though the study will not benefit you directly, but the information you will provide will influence public health policy which may benefit the whole community and other communities in Ghana.

Confidentiality: Be assured that the information you will give us will be kept confidential. The recordings will be destroyed after we have worked with them. Your name will not be mentioned in any written document of the study. Nobody will be able to trace any information you will give us in this discussion.

Right to refuse or withdraw: Your participation in the study is completely voluntary. You do not need to answer any question or participate in the research if you do not want to. If you decide not to be part of this study, your decision will not affect your relationship with the study team in anyway. You will also not lose any health care services that you are entitled to.

Contact information

If you have any questions or concerns about this project, please feel free to contact Madam Irene Kuwolamo, at the School of Public Health, University of Ghana, Legon on telephone number 0200333988 or Prof. Philip Baba Adongo at the School of Public Health, University of Ghana, Legon on number 0244806015. If you have questions about your rights as a research subject, you may contact Madam Hannah Frimpong (administrator, Ghana Health Service Ethics Review Committee) on 0507041223.

Statement of consent

I have read or have had the above read to me and I have asked questions and received answers and I am willing to participate in this study. I will not have waived any of my rights by signing/thumb printing this consent form.

Do you agree to participate in the study?

Sign/thumb print..... **Date:**/...../.....

Certification of individual seeking consent

I, the undersigned, have explained to the participant in a language she/he understands the procedures to be followed in the study and the risks and benefits involved.

Name: of individual obtaining consent_____

Signature_____

Date_____